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## A Suggestion on Price Fixing and Profiteers

SINCE the beginning of the war we have had a long experiment in price-fixing with a view to protecting the public from excessive prices. The net result of it all has been large profits to the distributor, perhaps not larger than he would otherwise have had, perhaps less; but at all events, he has done well, and prices have been constantly on the rise. The distributor has been getting most of the dollar. Now there is a large cry for further price fixing to protect the consumer. Will it work? Can the prices of a million things in as many places, each constantly changing every day, be intelligently, efficiently and rightly fixed? To the outsider it looks like some job, and almost certain to get mixed up, with the likely result that the profiteer will be the beneficiary of the system rather than curbed by it.

Moreover, what does the profiteer care about the price? All he wants is the margin. Price-fixing leaves that wholly or largely untouched.

Suppose that instead of fixing prices, we leave prices to take care of themselves in all industries not controlled by monopoly. Suppose that, instead of fixing the price, we limit the margin. Suppose that all merchants were required to post the bill for

the purchase price of the goods on the goods when offered for sale; and the posting of a false or doctored bill be made a criminal offense. Suppose that in addition to this, the margin between the original producer and the ultimate consumer were limited to two hundred per cent of the price obtained by the producer or processor, plus the freight. By such a system prices would automatically fix themselves, and the producer would get nearly fifty per cent of the consumer's dollar. It would also seem that the distributor could afford to hand the goods over the counter for as small an amount as the producer gets for making the goods and delivering them at the primary market. The food inspectors we now have could also do the work of margin inspectors; so that no costs would be added to the present system.

This is not a perfected scheme, but a nebulous idea. Would it work?

The principal reason why the distributor cannot make a living on a small margin is that with larger margins comes the temptation of outsiders to engage in duplicated service; and as competition cuts down the volume of business done, the overhead cost on each unit increases in (Continued on page 188).

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Editors and Proprietors

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## CURRENT COMMENT

### Will Peace Bring the Remedy?

IN his address to congress relating to needed action to reduce living costs, President Wilson laid great stress on the argument that the real solution for existing conditions was the early ratification of the peace treaty, to the end that the world might get back to work on a peace production basis. While this argument was a most natural one from the President's standpoint in view of the situation which now exists, few students of rural economics will agree that the solution of the living problem will quickly follow the establishment of official peace between the late world belligerents.

While we are prone to attribute the present conditions to the great world war, and while this has undoubtedly been a great contributing factor in the increased cost of all necessities of life, yet the economic influences contributing in considerable measure to the high cost of food production were in operation and their influence was felt in no small degree before the outbreak of the war.

The great industrial development which has taken place in this country during the past generation, and particularly during the last decade, with its high and rapidly increasing wage scale, has been the beckoning finger of opportunity for the young men who were country born, and the resulting industrial draft was severely felt by the farmers of the country, even before a world war was considered a possibility. The need for workers in the war industries further depleted the farms of their young men, and the military draft completed the process. The practical cessation of immigration and the return of many foreigners to their native lands during the war period further depleted the supply of industrial laborers, and the return and demobilization of our boys failed to develop the problem of unemployment which had been anticipated, and the return to peace production has found us short of industrial labor as well as of manufactured goods, with the result that both wages and prices of commodities of all kinds have advanced above the war-time level.

Because the farmers of America patriotically responded to the call for increased food production to help win the war, notwithstanding the difficulties with which they were confronted in the accomplishment of this task there seems to be a lamentable lack of appreciation of those difficulties by public officials who are seeking a remedy for the present high living costs, and a consequent disregard for the

problem of adequate future food production which bodes ill for the future unless there is a change in this direction. This is but the natural consequence of the fact that labor is well organized while farmers are not, and for this reason better able to make an impression on governmental agencies, which naturally follow the lines of least resistance in attempts to direct the readjustment of economic conditions.

In this emergency there seems but one practical method of procedure. The farmers of the country must become affiliated together in an effective organization to the end that their voice may be heard in the working out of these pressing reconstruction problems, not as a radical force which would accomplish its own ends through class paternalism, but rather as a constructive force prepared to meet economic emergencies affecting the industry and the country at large and work intelligently with all existing agencies for the betterment of economic and industrial conditions which will as surely react upon the people of the whole country as they continue to adversely affect the business of food production on farms of America.

To this end the present rural organization movement, based on the county farm bureau or some similar organization as the local unit gives greater promise than any other country organization movement has ever done. For this reason this movement should hold the attention and invite the support of the home-owning farmers in the states where it is in the process of development. Nor should this movement excite the opposition of any other class, since the completed organization will be composed of mature men, who will average well past the meridian of life, and whose accumulated experience and wisdom will enable them to demonstrate in the present crisis, as their forbears have in previous crises through which our country has passed, that the home-owning farmers of America are the bulwark of the nation in its every time of need.

### Feast Versus Famine

WHILE the search for and punishment of food profiteers in which both national and state governments are busily engaged at the present time is in itself commendable and should prove to be a wholesome influence in curbing a present-day evil, there is apparently danger that the pendulum may swing too far, and that over zealous officials may literally kill the hen that lays the wholesome egg, as well as the fabled goose that lays the golden kind. The present tendency among these officials seems to be to search out, seize and sell on the present market all supplies of eggs, dairy products and other perishables held in cold storage warehouses for future consumption, with the evident intent of breaking the present market for these necessities, but with a lamentable lack of regard for the future supply.

The result of this policy, if persistently pursued, will be an increasing shortage of these commodities during the season of low production just ahead of us. This, in turn, will mean higher prices than would otherwise prevail. But in the meantime what will be the effect on production? There will be little promise of profit in the production of these commodities at greatly lessened prices. Indeed, there will be serious danger of losses, which producers will be loath to assume. And these present efforts to reduce living costs will ultimately defeat their own ends by still further shortening needed production.

It is an old and well proven proverb that we cannot eat our cake and have it too. Cold storage facilities have stabilized the market for these perishable products in a manner which will

stimulate increased production unless that stability is shattered. Reasonable regulation which would prevent unjust profiteering through control of the distribution of these products should operate to the public interest, but the present tendency to monkey with the economic machinery of production is dangerous, especially at the hands of political mechanics.

### Farmers Issue Statement

OFFICIALS of several state farm bureaus were in Washington last week to confer with government officials, including President Wilson. Following this conference a signed statement was issued by O. E. Bradfute, president of the Ohio Farm Bureau Federation; J. G. Brown, president of Indiana Federation of Farm Associations; D. O. Thompson, secretary Illinois Farm Bureau Federation; J. R. Howard, president Iowa Farm Bureau Federation, and F. C. Crocker, president Nebraska Farm Bureau Association. This statement discussed the causes of the high cost of living as they affect the farming communities as follows:

"The high cost of living is not due to the storage of meats, vegetables, fruits, eggs and poultry in the season when these are produced in surplus against the season of short supply. Popular as is the hue and cry against storage of foodstuffs, it is a palpable fact that modern storage methods are the greatest food savers in the world; at one and the same time saving food in time of plenty and supplying it in time of scarcity, and moreover, maintaining a steadier level of prices throughout all seasons for any given commodity. Indiscriminate restrictions on food storage will serve only to wastefully glut the market in the harvest season of meats, vegetables, fruits, eggs and poultry, at a price disastrous to the producer and create a dearth of these products out of season at a prohibitive price. Food storage for speculative purchases is intolerable.

"The high cost of living is not due to exportation of food and clothing any more than it is due to our heavy exports of manufactured goods, machinery, etc., of which the farmer is a heavy purchaser. An embargo on foodstuffs to bring down the high cost of living will be as demoralizing to American agriculture as the embargo placed on foodstuffs was to French agriculture in the time of Louis XIV.

"The high cost of living is not due to lack of desire on the part of the farmers to produce to the limit of their physical ability. Not within the knowledge, not in the present generation, have all the farmers of the country extended their every energy in a consecrated effort to produce to the last kernel and pound all the grain and meat products needed to feed a hungry world. The operation of the short-hour day in industrial centers and a talk of shorter hours and ever-advancing pay has made it well nigh impossible for anywhere near the normal supply of help to be maintained on farms. The daylight-saving plan has mitigated against maximum production by reducing materially the practical working hours of the day on the farm.

"The farmer has not struck, walked out or otherwise slackened in production. The high cost of living is due to a stagnation in production of manufactured goods and prepared foodstuffs. Every labor strike that shuts down any plant engaged in the preparation of foods or the making of clothing, that shuts down a mine or a mill, adds to the high cost of living. Shortly after a strike of the United States yards and packing plant employees, the wholesale price of fresh meats advanced fifteen to thirty-five per cent, directly due to the short kill and consequent small supply of fresh meats.

"The high cost of living is due to price manipulation and extravagant profits of middlemen.

"The high cost of living is due to the failure of practically all folks to practice even ordinary economy in public and private life. This question of lack of economy in public spending was brought within the focus of the American public's attention early in July, when the railway brotherhoods demanded of President Wilson that he bring down the cost of living immediately, threatening a demand in wage increase amounting to a total of \$800,000,000 a year, payable necessarily from one of two sources, revenue from increased freight rates or from

a deficiency appropriation, either of which would add to the cost of living. A lack of practicing economics in private life may be illustrated without end. Theaters and places of amusement, resorts and watering places are crowded with beautifully gowned women and handsomely tailored men. The price of shoe shines has doubled and trebled, yet one must wait his turn, though he could shine his own shoes at home for less than one cent."

The presentation of the farmers' viewpoint on this question to the government and to the public by the authorized representatives of an already great, though still embryonic farmers' organization cannot but have a wholesome influence in the solution of the grave economic problems with which the country is confronted at the present time. May the day soon come when the Michigan State Farm Bureau may become one of the strongest units in an unprecedentedly strong national farmers' organization which can adequately represent the interests of its membership in such crises.

### Farm Management Problems

UNDER the difficult labor conditions which have prevailed on the average Michigan farm this year, good farm management has been even a greater factor of success than is the case under normal conditions, although it is ever a great determining factor of marked success in the operation of a farm. Choosing between two really necessary tasks, when but one can be accomplished is an important matter, and where the result is influenced by conditions over which the farmer has no control mistakes of judgment and losses are bound to occur.

A case in point can be cited in many communities this year. There was a general desire on the part of farmers to thresh their grain from the field this year on account of the economy of labor thus effected. In many cases where a machine could not be secured to do the threshing at the opportune time, much loss in the quality of grain has been sustained. This loss was greatest in cases where the economy program was carried to the extreme of leaving the grain as it dropped from the bundle carrier instead of shocking it up. The student of farm management, and every farmer should be one, will utilize the knowledge gained by present experiences in the making of future plans.

### Electric Railway Fares

IT develops that a law was passed last winter permitting electric as well as steam railroads to charge a fare of two and one-half cents per mile on lines where the gross income does not exceed \$8,000 per mile of track. Many citizens of the state first learned of this legislation when an increased rate of fare based on this law was put into effect on various lines controlled by the Detroit United Railway, which increase was made effective on the day the law went into effect, without regard to existing franchises, the increase in some cases being more than one hundred and fifty per cent. To establish their right to charge these fares it appears that the D. U. R. spread their earnings over total trackage, including double track, switches and Y's. Late reports from Lansing indicate that the attorney-general construes the law to apply to first main line trackage only, and will bring suit for the annulment of the rate and to attack the constitutionality of the law, which vitiates existing contracts.

In the meantime various townships will contest the increase on the ground of the contracts written into the franchises granted. Failing in these efforts the people affected will undoubtedly demand a hearing, looking toward a repeal of the law at the next session of the legislature.



# Building Better Herds Requires Pluck

By C. B. Ford

ONE of the most puzzling problems confronting dairy farmers and breeders of pure-bred dairy cattle is that of how large an investment it is safe to make in a breeding bull. With pure-bred bulls selling at prices ranging from \$50 to \$25,000 and upward it is well for one to make a careful study of what constitutes merit in a breeding bull, before investing in qualities that are not apparent to the eye.

Since heavy milk production is not a natural, but an acquired characteristic, it is only by constant selection that this quality can be retained and intensified. Unless the breeding bull has inherited heavy milking qualities through his female ancestors we have no evidence that he will have the ability to beget daughters that will prove superior to the cows with which he is mated. In order to retain the milking characteristics of a good grade herd it is necessary to use a bull that has inherited these characteristics to a stronger degree than the cows. This makes it imperative in all herds where progress has been made in raising the average of milk and butter-fat production, that the sire be selected with great care, especially regarding the milking qualities of his nearest female ancestors.

Almost any pure-bred bull that can be purchased for \$100 will improve the milking qualities of a grade herd, but for the more highly developed herd it is much more difficult to select the proper bull. Breeders of high-producing dairy cows recognize the im-

portance of selecting a bull that will transmit the acquired milking tendencies to his ancestors to the fullest degree. These breeders are always ready to make use of breeding bulls that possess the ability to strengthen the blood lines in their herds and exert prepotency toward uniform offspring and dairy qualities. Price is of small consideration when they find a bull that combines the qualities needed to bring about the desired improvement in their herds.

Where so many dairy farmers have apparently failed in the effort to build up their herds of grade cows was in, after seeing the great improvement of the first cross with satisfaction and attaining with the second cross much less results than were apparent from the first cross, abandoning all future efforts to grade up. The first cross of a pure-bred sire on account of the much better quality of the sire, if a proper selection has been made and his greater prepotency, is apt to be

very strong. Such a sire will exert much more than fifty per cent influence and the dam much less than fifty per cent upon the progeny. While in the first cross there is existing a wide difference between the quality of the pure-bred sire and the quality of the common bred dam, when it comes to making a second cross the difference between the half-bred dam and the pure-bred is much less, and the three-quarter-bred stock will show much less improvement over the half-bred than the half-bred cows over the common bred cows. Hence, many dairy farmers are apt to conclude that it is hardly worth while to pursue these lines of breeding any further if they are not to get the same results with each cross, and right here the mistake is made of stopping improvement. The results are being attained as rapidly as possible, but are not so apparent from year to year. When the process of breeding up through the use of improved sires is abandoned the ten-

dency is for production to go backward.

Right here is where the importance of selecting better sires is apparent. It would be important as well as interesting if we had the results of definite experiments to guide us in our breeding efforts. What would be the probable results of mating a bull from a line of dams capable of producing from nine to ten thousand pounds of milk per year with common bred cows capable of producing five thousand pounds of milk per year and what effect on the progeny would result from using a sire with breeding capable of producing five hundred pounds of butter-fat with cows capable of producing two hundred pounds of butter-fat? Such data, if only approximately correct, would give us more accurate figures to base our estimates of breeding values on and prove of great value in determining prices that one could afford to pay for breeding bulls to carry out his ideas of improvement. While the experienced breeder of dairy cattle realizes the importance of using a sire that is superior in inherited capacity to his cows the average dairy farmer does not give the question of the selection of a sire the attention that the importance of the question demands.

The process of breeding up a herd of dairy cows to a high annual standard of production depends upon using breeding bulls that are superior in inherited dairy capacity to the cows with which they are mated. As the cows reach a higher standard of pro-

(Continued on page 201).



# Motor Truck vs. High Cost of Living

By John R. Crowle

I SEE by the papers, as Mr. Dooley used to remark, that they are starting a motor truck express company to cover lower Michigan, with headquarters at Grand Rapids. If this is carried out to its logical conclusion it will hit old H. C. L. an awful wallop and fill a long felt want. As an old timer who has worked and studied both the European and the American express business, I will try and explain what a business of this kind, if it is worthy of the name, will mean to both farmer and gardener or poultry raiser in the country, and to the ultimate consumer in the nearby cities.

Formerly the farmer who has a nice family garden usually consumed about one-third of the stuff he raised, and fed the other two-thirds to the hogs because it got ripe faster than the family could eat it, and there was no profitable market for the surplus.

With a modern, up-to-date motor express company one of the first requisites should be a large bulletin board in every office and the agent's first duty to chalk on the board that Irving Fox had crisp butter beans at sixty cents per bushel, and fresh cottage cheese at fourteen cents per carton, and Mrs. Crowle had ten bushels of windfall apples at sixty cents per bushel. A copy of each bulletin should be hung up in a conspicuous place in every town office the company covered with their service. It usually does not take the city business man as long to catch on to a novelty as the conservative farmer, and you would soon have the city store keeper phoning in that Grocer Jones wanted apples, turnips, cabbage and squash and would take all of Mr. Fox's cottage cheese as fast

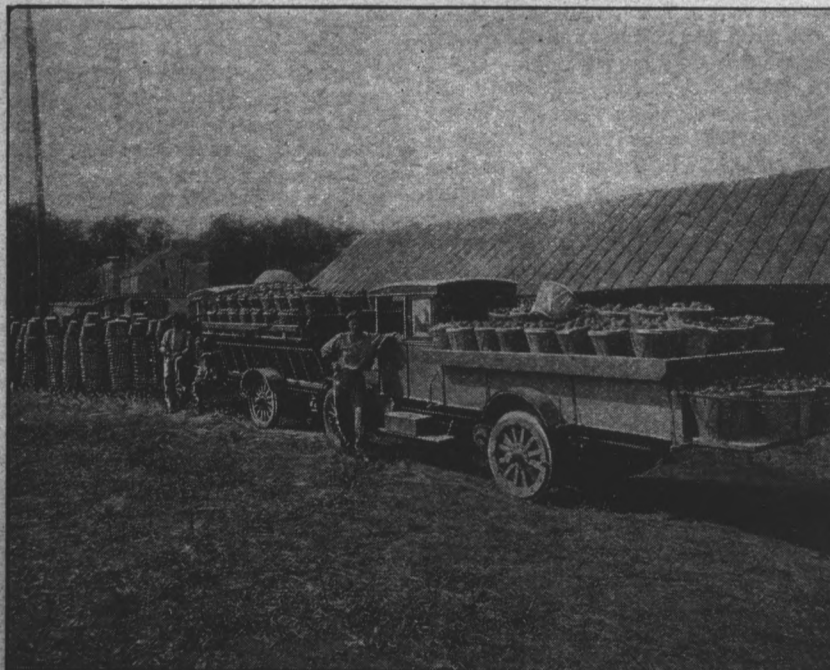
as he could produce it. You get with this one transaction two steady customers, Mr. Fox in the country, and Mr. Jones, the grocer, and a repetition of this would build you up a line of business that will only be limited by the amount of truck room you can furnish.

The first express business was started by a young man with two suitcases who traveled on the trains to and from the city, purchasing articles in the city

that the farmer and his family wanted, and in the country what his city friends wanted, and charging a small sum for each transaction; and this business grew to the present enormous business carried on under the name of the American Railway Express Company. The motor truck express will not interfere with this business, because it will handle a business that will itself create and as it will call at the farmer's door and while the farmer

is loading his case of yesterlaid eggs on the truck for the city hotel trade, Mrs. Farmer is asking the motor truck driver to bring back five yards of goods like the sample furnished, to make a dress for daughter Mary. It is the little orders and commissions that will make the dividends for the company and build up a strong clientele of satisfied customers. I have seen a whole train load of family hampers pull into the railroad station in London, England, and each hamper contained the week's vegetables for a family, together with a dressed chicken or a pair of rabbits for the Sunday dinner. These hampers came right from the country from farmers who catered to that kind of business. The same thing could be done here with the cooperation of the farmer and the industrial worker in the nearby cities.

If the farmer is honest with his customers and the customer is prompt with his returns, it will be a mutual benefit all around and mean a lot of business for the company. It will mean that thousands of bushels of ripe fruit that will not stand the shipment to the large cities, and rots under the trees, while the city folks pay three prices for the fruit they buy, will be delivered to the nearby town and sold at a price within reach of the laboring man. The whole business of a successful express company consists in bringing the buyer and seller together and acting as the agent, or go-between, of both parties to the mutual satisfaction of both, and if they adopt as their motto, "Satisfactory Service for Sale." "We Are Here to Serve the Public," there need be no end to the business they can build up.



A Profitable Way to Market the Farm Surplus.

# News of the Agricultural World

## ELEVEN CENTS FAIR PRICE FOR SUGAR, PALMER SAYS.

**P**ROFITEERS in the sugar market are expected to be reached as a result of telegraphic instruction which Attorney General Palmer sent to the various federal district attorneys throughout the country. In these instructions Mr. Palmer stated that sugar should not be retailed for more than eleven cents a pound, in the opinion of the administration, and where it "is retailed for more it indicates that either the wholesaler or retailer is making an unreasonable profit."

The attorney general's telegram also informed the federal officials that through the cancellation of licenses of sugar dealers it was hoped to reach some cases that would be more difficult to reach through enforcement of the original regulations of the control act.

"Dealers in sugar," the attorney general's telegram read, "except retailers doing a gross business of one million dollars or less annually, are still subject to license under the food control act. In addition to the provisions of the law itself, the regulations governing dealers in sugar prohibit the licensee from charging an exorbitant, unreasonable, or unfair commission, profit, or storage charge. They also provide that resales within the same trade without reasonable justification, if tending to result in a higher market price to the retailers or consumers, will be dealt with as an unfair practice."

"The United States Food Administration has taken the position that sugar should not retail for more than eleven cents, and where it is retailing for more it indicates that either the wholesaler or retailer is making an unreasonable profit."

The attorney general is anxious to obtain authority of law to deal with certain phases of the situation that cannot well be reached under the existing statutes and, while testifying before the senate committee on agriculture, urged the utmost expedition in the enactment of the laws recommended by the President in his message.

"We should have this law in three days," the attorney general told the committee, while urging speed in enacting the proposed legislation. Mr. Palmer told the committee he had asked the community price fixing organizations formerly under the Federal Food Administration during the war to resume their activities and that prosecutions would be conducted against dealers who exceeded the prices fixed by these organizations.

"You should either repeal the law," Mr. Palmer told the committee, "or put teeth into it."

## WANT ALL FARMERS EXEMPTED FROM ANTI-TRUST LAWS.

**F**ARMERS of the country are being urged to protest by petition, ballot or other lawful or orderly means against "unfair and un-American" methods being used against farm organizations engaged in the collective sale of their farm products.

The immediate cause for the appeal is the arrest on August 9 of seven prominent farmers in Ohio who were acting as representatives of the Ohio Farmers' Cooperative Milk Company in the sale of the farmers' milk to the dealers of Cleveland. These men, according to the statement of the organization, were arrested at their farm homes in the night and thrown into the city jail.

In the appeal, congress and legislatures are asked to take early action to clarify a situation which the farm

board asserts is widening the breach between city and country, and which is viewed with fear and alarm by the farm leaders.

The appeal concludes as follows: "The National Board of Farm Organizations believes that organization and collective bargaining in the marketing of farm produce is essential if profiteering and unnecessary expense shall be eliminated between producer and consumer. These indictments by cities against milk producers whose industry cannot survive without this right are being justly construed as indictments against all farmers, whether they be named or not in the indictments themselves. We view this widening breach between city and country with fear and alarm."

"The National Board of Farm Organizations confidently asks:

"1. That every farmer, through petition, by the ballot or by other lawful or orderly means, make his protest known against the unfair and un-American methods so being used against him.

"2. That congress and legislatures by early action make clear the original purpose of our anti-trust laws that are being misinterpreted and misdirected so that by unmistakable terms farmers shall have the right to do collective bargaining in accord with the original intent of the law."

## REPRESENTATIVES OF FARM BUREAU CONFER WITH PRESIDENT WILSON ON H. C. L.

**T**HE National Federation of State Farm Bureaus laid their side of the high cost of living problem before President Wilson August 14, asserting that high prices were not caused by the rapacity of producers but by a combination of causes, including profiteering and speculation by the middleman, extravagance by the public, strikes, and stagnation in the production of manufactured goods and prepared food stuffs.

The delegates, from bureaus in Ohio, Indiana, Illinois, and Iowa, were with the President for nearly an hour, and were apparently well satisfied with the result of their interview. They urged the President to let wheat alone, and stated that he had said the government was not disposed at this time to interfere with the price of wheat. He added, they said, that he was working out a solution of the problem entirely along the lines which he had suggested in his address to congress.

The farmers had prepared a statement which dealt in some detail with their viewpoint, and emphasized that it was essential that they should know what the future held in store for them, as the time had come when they must plan for the 1920 harvest.

In presenting their argument the delegates cited their dinner at what they described as a "modest hotel" in Washington to illustrate their contention that profiteering is being carried on by agencies between the producer and the ultimate consumer. Five of them paid \$11 for a none too elaborate dinner, exclusive of tips. Their figures showed that of the \$11, eighty-two cents had gone to the farmers who produced the food. Food on the table costs out of all proportion to the price to the producer," they told the President.

## DEMAND FOR HAY BREAKS RECORDS.

**D**EALERS in hay on the Kansas City market report the broadest demand ever witnessed at this period of the year for alfalfa, timothy and prairie hay. Heavy sales of alfalfa are being made to the east, including

Philadelphia territory, and large orders are coming from the southeast and south.

Aside from the heavy buying by the east and south, Kansas City is moving hay into the southwest, the northern feeding states, and into drought stricken areas of the northwest. The authorization of an emergency half-rate on shipments of foodstuffs into the droughty areas, announced recently by the United States railroad administration, has brought an improved demand for hay from the northwest.

Eastern consumers of hay will feel the northwestern drought more seriously than other buying territories, being forced to enter into keen competition for supplies from the west. Nebraska, which normally moves large quantities of hay to the east, is selling to the droughty area much alfalfa and prairie, which naturally is diverting shipments from the east.

## IOWA HAS A STATE MARKET.

**G**OVERNOR W. L. HARDING appointed W. B. Barney head of a state marketing bureau to be formed to fight high prices in Iowa.

Under the direction of Mr. Barney, who is state dairy and food commissioner, the bureau will collect data on food commodities all over the state and act as a clearing house for perishable goods.

Governor Harding recommended such a bureau at the last session of the general assembly, but no action was taken.

The governor took issue with the committee which reported to the meeting of county attorneys, called to devise means for fighting profiteers, that Iowa laws are inadequate to prevent profiteering.

"We have the law to go after profiteers and hoarders and we are going to do it," he declared. "Even if it were true that our laws are inadequate we would still be protected, for all we have to do is to report profiteers and hoarders to the federal authorities and they will prosecute."

The governor said he would see that the cold storage law providing that no goods may be kept in cold storage for more than a year be enforced. He said he understood the law was being violated in many parts of the state.

## FEWER HORSES ON FARMS.

**A**LTHOUGH horses on farms slightly decreased in numbers in the United States in 1918, this fact is by no means true in all sections. It is true in the north from the Atlantic ocean to Iowa and Missouri, and on the Pacific Coast, but the reverse is the fact in one-half of the south, and in nearly the whole region between the Mississippi river and the coast states, except Iowa, Missouri, Arkansas, Texas, and Oklahoma.

In the north and in the Pacific states the kind of horse that is preferred on and off farms is changing. The automobile owner does not want a driving horse and the farmer with an automobile does not need a dual-purpose horse—a work animal that will also serve as a road horse. Medium and heavy draft horses are the new requirements.

This tendency is reflected in prices. In the Chicago market the mean price of draft horses rose from \$171 in the five years, 1901-1905, to \$213 in 1914. The mean price declined in the early period of the war to \$205 in 1915, but ascended to \$252 in 1916, fell to \$212 in 1917, and recovered to \$220 in 1918, or twenty-nine per cent above the mean price of the five years, 1901-1905. The class of horses known in the Chicago market as "general" had the mean of

\$143 in the first five years of the century and reached as high a mark as \$165 in 1913, but the mean for 1918 was \$152, or six per cent above that of the five years.

The active southern demand for the "southern chunks" sent the mean price in Chicago from \$61 in the five years, 1901-1905, to \$98 in 1913, followed by \$88 in 1915, \$109 in 1916, \$93 in 1917 and \$90 in 1918, a gain of forty-five per cent in fifteen years.

Carriage teams and drivers are small features of the market. There is little demand for them and the supply corresponds. However, showy carriage teams sold for \$1,500 to \$10,000 in 1918. "Bussers and trammers" have been fully out of the market for several years.

Hence, in the vicissitudes of preference and unpopularity in the various sections of the country, on farms and off, the average price of a horse on farms in the United States, all ages included, climbed from \$55.47 on January 1, 1901-1905, to \$111.46 in 1911, after which the decline was irregular to \$98.48 on January 1, 1919. The market preferences are now drafters and southern chunks.

## LEARNS TO FEED ITSELF.

**L**AURENS county, S. C., is an example of how many communities in the southern states are now using their own resources for food instead of buying food from other places. Laurens county formerly imported most of the pork products used by its people. Now Laurens county is selling pork.

The change began several years ago when a bank in the county offered to provide funds for the purchase of blooded pigs for boys who would promise to care for them. The county demonstration agent accordingly purchased and placed a large number of pigs under a long-term-sale-at-cost arrangement. The boys took up the plan with enthusiasm. A year later the bank bought 124 more pigs, and these were distributed.

The next year the county's production of pork exceeded household requirements and the demands of the home market. The county agent was brought into touch with packers, a local purchasing agency was established, and about thirteen months ago a carload of pigs was shipped out. It was probably the first time, and certainly the first time since the sixties, that Laurens county had sold pork.

The bank which provided the way for the boys to buy their pigs has kept its offer continuously open, and expects to do more along this line. Not a dollar has been lost of these advances, an official of the bank says.

## A SUGGESTION ON PRICE FIXING.

(Continued from first page.)  
per cent of the business done, with resulting decrease in the ultimate profit. If business could be done at a profit of one thousand per cent, competition would no doubt keep the total profits as low as they would be with a profit of one hundred per cent. Ultimate profit is measured by the volume rather than the per cent; and the more the field is broken up by duplicated service, the more the cost of doing the business. And all this cost of duplicated service is passed on to the consumer.

Why not cut out the temptation to duplicate the service, and prevent the increased cost to the ultimate consumer by putting some reasonable limit on the total margins? It seems to the writer that this would be much better than any attempt at price-fixing. With such a system prices would take care of themselves. JOHN R. ROOP.

# Threshing Now and Long Ago

By J. H. Brown

IT is a long spell back to the time eighty-three years ago when Hiram Moore astonished the pioneer farmers of southern Michigan by laying down his grain cradle and vowing he would have no more of it on his farm. From henceforth he would cut and thresh his wheat as he went along, and put the clean grain in his log granary, all in the same day.

And he did it.

And that was in 1836. Battle Creek was unknown at that time and went by the name of Milton. It had but a few log cabins and shacks on the farms thereabouts where some pioneers from "York state" had laboriously traveled through the wilderness with their ox-teams and horses, bringing along such things as were absolutely necessary and not to be found in the "wild and woolly" west.

Hiram had much trouble to get some castings made, for there was no foundry in Battle Creek and the big threshing machines existed only in the imagination of certain individuals. But Hiram Moore succeeded in doing all he claimed he would, and even more.

And from 1836 to the present time Battle Creek and a certain farm of Hiram Moore's in our old farm neighborhood has stood in the front rank in the invention and making of threshing machinery.

One of our pictures shows S. O. Bush and attorney Fred Atwood and his father threshing grain with flails that are nearly one hundred years old. In the background is a modern threshing machine at work. It was on the Bush farm that we took this picture, and these men have large and fine farms in that neighborhood. Mr. Bush has been one of the largest manufacturers of threshing machines in the country, and yet he shows he knows just how to swing an old flail to make the grain get right out of the heads on the double-quick. Mr. Atwood is cleaning the grain from the chaff by letting the mixture fall from his shovel, while the wind blows the chaff one side. It surely was a slow job in the old days to thresh with flails, and we posed this picture in order to get one showing our old relies in actual operation.

This season in Michigan is one of the greatest and busiest for the farmers and threshermen in over half a century. Help is scarce and costs a lot of money. Many farmers are now threshing from the shock, as the weather, so far, has been very favorable. Stacking is still quite generally practiced, but not so much as in the years past.

One picture shows the present way of loading up in the field. The loader



From the Field Direct to the Thresher.

now uses a fork to place his bundles. We used to use our hands entirely and never saw a fork on a load of bundles until ready to pitch off in the barn or on to a stack.

Two big loads of bundles are pitched into the self-feeder at once these days, and this operation is a lively one. In the old days a band cutter would have to clip the band and shove it along to the feeder just as he wanted. The man who pitched on to the table would have to step lively and twist the bundles around with his fork so that each one would be headed toward the greedy cylinder. After some days' experience a farmer who had the right stuff in him, and a good constitution, could handle and flip bundles on to the table in fine shape. On a stack setting it was quite a knack for three men to get accustomed to pitching bundles and these farmers were in demand at every setting in the neighborhood in changing work.

Like everything else that has been invented, there were many farmers who laughed at the idea of an automatic band cutter and self-feeder ever being a practical success. The man who fed the bundles into the cylinder had to do it just right. And he was mighty particular about his band cutter. In the days when wheat bundles were bound with straw bands by hand there was an occasional band cutter who would seriously cut the feeder's hand with his sharp knife.

Then the wire band came along with the first self-binder. Some band cutters liked the wire, if they had the right kind of a hooked snip to catch

the wire without making any false motion. The twine binder brought the knife back again, and we used to like the job of cutting bands in those days.

The old-time feeder was one of the best men in the thresher's gang. He would grab a bundle and spread it out just enough to have it fill the whole length of the cylinder space between the concave, and each bundle would lap over the preceding one so that there was no jerk or unevenness. Once in a while a bundle would get by the band cutter uncut and the feeder would let it go. There would be a sudden chug and the motion of the entire mechanism of the separator would slow up so quick that the feeder would halt a second or two to let it speed up.

But these days, as the picture illustrates, it is lively feeding for two men to keep the machine full to its capacity. The automatic feeder with its revolving knives feeds the cylinder evenly and better than a man could do in the old days.

If the concave is adjusted right, and the beaters and screens are kept in good working order and frequently inspected, the threshing of wheat, oats or rye can be so clean that there is practically no waste over into the straw stack. A close inspection of the chaff under the blower tube is necessary to be sure. At the same time the screens and wind pressure should be so perfect that the grain may be clean enough to haul to the elevator or market without going through the farm fanning mill. In fact, there are very few farmers these days who keep and use a fanning mill for any purpose ex-

cept to clean seed wheat or other grain.

Although it is an ordinary day's work with modern threshing machinery to thresh 1,200 to 1,500 bushels of wheat and put it in a farm granary, Hiram Moore did a more wonderful stunt eighty-three years ago on his farm near Climax.

Just think of it! In a single day he went out into his thirty-acre field of standing wheat, cut, threshed and cleaned it as he went along, and put it into bags; all with a single machine, hauled by twenty horses, and cutting a swath fifteen feet wide.

"Why was not Hiram Moore's combined harvester and thresher a success and adopted in this country long ago?" we have been frequently asked. That machine required that wheat be dead ripe over an entire field. If there were any green spots in hollows or slight depressions they had to be avoided, as the heads would not shell. Michigan farms, rolling surface, small fields, and the waste of such a machine in a field of wheat unevenly ripened, made Moore's combined machine of little value in this country. It was taken to California and became the progenitor of the headers and threshers in the great western wheat fields.

## SEEDING LOST.

I have a ten-acre field that was into rye this year and have lost the seeding in it. Do not want to break up my rotation. I intended to let the clover come on next year and let it go back on the ground, and then break it up a year from next spring. Would it be all right to sow rye to winter vetch this fall and then turn it down next spring and repeat again a year from this fall to make it come in rotation again?

Isabella Co.

V. S.

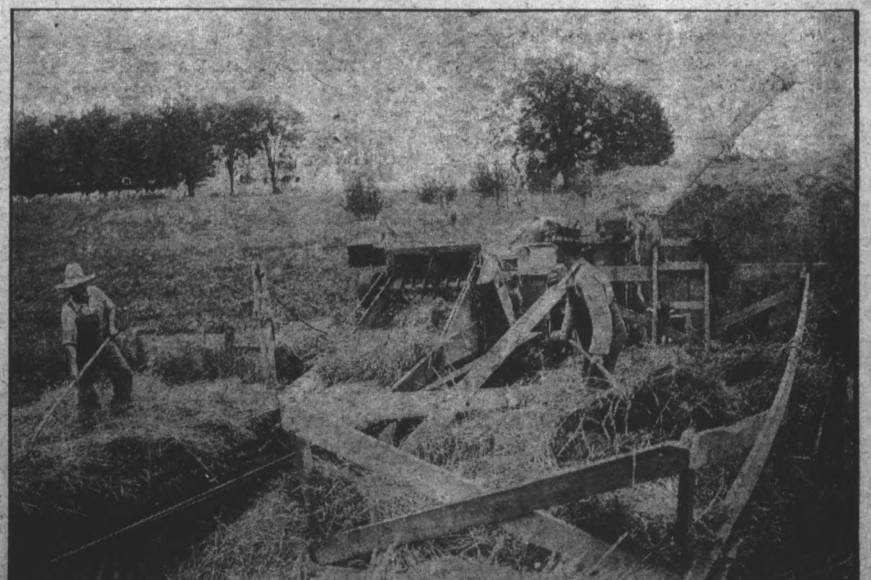
You probably could not do better than you suggest, to prepare this land and seed it to rye and sand vetch the first of September. This can be plowed down next spring or next summer any time and reseeded if you choose. If you get a good growth, and I believe you will, it would go a long ways toward improving your soil.

You can, however, if you prefer clover, work this land up either by plowing or discing, prepare a fine seed bed (it could probably be done with a disc and a harrow) and just as soon as we get moisture seed to clover alone without a nurse crop. If you could use two hundred or three hundred pounds of acid phosphate per acre I think you would be surprised at the stand of clover you would get and the amount you could harvest as hay next year.

The vetch and rye could also be cut for hay early next year and would make splendid hay. Vetch is as rich in protein as alfalfa. Either way would tend to improve the soil. L.



How Our Forefathers Did it a Half Century Ago.



A Modern Self-Feeder Keeps Two Pitchers on the Jump.



# Cooperation Grows in England

THE signing of the armistice stimulated a new interest in the cooperative movement throughout Great Britain, where there were already some 2,500 industrial cooperative distributive and productive societies in operation with a membership of 3,500,000 persons, a total share, loan and reserve capital of over \$357,000,000, a total trade (distributive and productive) of over \$1,000,000,000 and a total profit in 1916 before deduction of interest or share capital of about \$90,000,000. The above statement is made in a bulletin of the Bureau of Statistics of the Department of Labor.

On the whole, the Department of Labor states, the war has had a favorable effect on the progress of cooperation in Great Britain. Controlled prices have been helped rather than hindered by the movement, since in the case of the controlled commodities, for which everybody must pay a certain retail price, members of the cooperative society have an advantage over non-members in that they receive a dividend on all purchases. Cooperative stores are the only stores paying such a dividend, and in many cases this has been an excellent argument to prove the soundness of the cooperative system.

"The number of members of individual cooperative societies has shown a fair increase and this increase would undoubtedly have been much greater had the societies been able to obtain sufficient supplies. Government restrictions, applying equally to all stores, made it very difficult for a stock of supplies to be maintained in any section of the country. During the last ten days of January, British consumers had the option of changing their retail dealers, and this is expected to result in a substantial gain in the membership of retail cooperative societies, since it is believed that many persons who were not members during the war now appreciate to a greater extent the merits of cooperation.

"The extent to which the war has interfered with the normal organization of cooperative societies can be realized when it is known that the British Cooperative Society alone had six thousand employees called to the colors. The society undertook to make up the difference between their pay as soldiers and their wages by means of the payment of a separation allowance, and to date \$3,000,000 has been disbursed for this purpose. As demobilization proceeds and former employees return the society will be in an excellent condition to proceed with new development schemes."

The total sales of the wholesale societies for the first six months of 1919 are given as \$144,157,298, and it is estimated that the corrected figures for 1918 will show sales totaling approximately \$311,456,000 and practically all of this total represents sales to cooperative retail societies—in other words wholesale prices. Groceries and provisions make up the biggest item in the cooperative wholesale societies.

The most important single units in the cooperative movement in Great Britain are the British Cooperative Wholesale Society, Ltd., with headquarters in Manchester, and the Scottish Cooperative Wholesale Society, Ltd., with head offices in Glasgow and Edinburgh. The membership of the British society now exceeds 2,650,000 persons.

"Up until the last two or three years the contact between the cooperative societies and the trade unions has not

been at all close. Recently, however, there has been a definite attempt made to persuade trade unions to do their banking business with the banking department of the Cooperative Wholesale Society, and an important scheme of agricultural and industrial development which will shortly be announced by the society will tend, it is believed, toward establishing a closer working arrangement between the cooperative societies and the trade unions."

"For a long time the leaders of the cooperative movement have sought to widen the field of cooperative trading, and efforts have been made to have the law governing cooperative efforts so amended as to allow individual members of societies to increase their interest beyond the limit of \$1,000. The treasury has now sanctioned the proposal to issue what will be called 'development bonds,' in denominations of \$100, \$250, \$500, \$2,500, and \$5,000 up to a sum of \$12,500,000. These bonds will bear interest at the rate of four and a half per cent payable half-yearly, and they may be redeemed at par at the end of ten years. At a meeting of the shareholders of the Cooperative Wholesale Society held in Manchester this scheme for issuing development bonds was ratified.

"The Directors of the Cooperative Wholesale Society believe that their scheme will appeal not only to individuals but also to trade unions as a good investment for their funds. Already several hundred trade unions are banking with the local retail cooperative society in their districts, which acts as an agent of the banking department of the Cooperative Wholesale Society at Manchester. Trade unions also invest their funds in municipal, government, and railway stocks. The proposal which the Cooperative Wholesale Society now makes to the trade unions is that it will be to their interest to invest their money in a coop-

erative scheme for development in the field of agriculture and industry.

"Among the projects contemplated under this development-bond scheme is the acquisition and operation by the society of flour mills, tanneries, jam factories, boot and shoe factories, corn mills, dairy farms and similar enterprises. Not long ago the Cooperative Wholesale Society began the manufacture of textiles. It bought, and is now running, three weaving sheds—one at Bury, with 900 looms; another at Radcliffe, with 500 looms, and a third at Chorley, with 500 looms. It proposes to extend its interest in cotton-textile manufacturing when it is in position to consume the yarn output of a moderate-sized mill. It intends to build such a mill for the spinning of yarn in the near future.

Another big development foreshadowed is the acquisition of large coal fields in Yorkshire. Already the society owns a coal mine near Newcastle. During the war the society has spent large sums for the purchase of farm lands and factories. Forland in connection with factory extension it has paid \$573,480; for new factories and workshops it has paid \$3,049,650, and for farms and other land \$3,333,960, a total of nearly \$7,000,000. It is estimated that the society now holds about 33,000 acres of farm lands in Lancashire, Cheshire, Yorkshire, and Cambridgeshire. It is also hoped to establish eventually 1,400 branches of the banking department of the Cooperative Wholesale Society.

## THE "WEEVIL SIGNS."

MANY a bushel of beans or peas is destroyed every year by the depredations of weevils. This is not altogether the result of carelessness on the farmer's part, as much as it is ignorance of how to deal with these pests. One should know how to

"read the signs" in a sample of beans if he would prevent damage from these insects later in the season. Often in the late winter or early in the spring an examination of the beans will show them to be alive with weevil and full of large holes. This condition could have been prevented had the farmer known, in the late summer or early fall, how to read the "weevil signs." Many a person would have sworn that the beans that he put away so carefully in a sack in the fall were perfectly healthy and free from both bugs and disease. But upon looking at them early in the spring there was hardly a one of them but what had holes in it. The weevil odor and countless numbers of insects accompanied this condition. Where did the insects get into the seed? The answer is not hard to find. Attached to the beans and unnoticed to the unpracticed eye were some tiny white eggs that soon hatched into tiny worms that grew and developed into these pests. The holes in the beans were made by the growing worms which develop inside of the seed.

The weevil lays its tiny eggs on the maturing pods of beans and peas where they appear as small white specks. Upon examination these ripening pods will show whether or not there are any weevil present. If many eggs are found to be present the farmer must plan on some means of destroying these pests when the beans are harvested and put in storage. Shortly after the weevils lay their eggs on the pods in the field, the young worms hatch and begin burrowing through the pod into the bean, leaving the egg-shell on the pod. So the first indication of the presence of weevils are the tiny holes in the new crop. When the eggs are laid on the beans in storage, the shells stick to the bean and are easily seen. If the grower will learn to look carefully for both the tiny entrance holes and the shells he will soon have little difficulty in detecting weevil infestation and will know how to deal accordingly. Of course, these entrance holes are so small that a person, with poor eyes or one not looking for weevil signs would pass them unnoticed.

If weevily beans and peas are placed in storage without the weevil having been killed, the eggs will hatch, after a time, into tiny grubs that soon develop into the adult weevils. These in turn lay numerous eggs that start another generation that feed upon the farmer's seed. Read the weevil signs and prevent the enormous waste that is taking place annually. An examination of the ripening pods in the field or of the newly harvested beans in the fall will show the grower the clues to the presence of these pests. If they are at all numerous they should be fumigated. This is best accomplished in an air-tight bin, or box, with carbon bisulphide. A pound of this material is sufficient for one hundred cubic feet of space, if the container is tight. Measure the place in which the beans are to be fumigated and get the number of cubic feet. Then for every one hundred cubic feet use one pound of the carbon bisulphide. Care should be taken not to expose a flame near these fumes as they are highly inflammable. This gas will kill the adult beetles and worms but may not prevent the eggs from hatching. Another treatment in three or four weeks will be necessary to kill the worms that have hatched from the eggs since the last fumigation.



## Michigan Farmers Fight Army Worm

TWO methods are in common use in restricting the progress of army-worms. One depends on a barrier to keep the worms from spreading into new areas and the other is by means of poison bait which actually kills the worms. The barriers or ditches are of most use when the worms are marching and threaten new fields. The commonest barriers used consist of two or three deep furrows, plowed around the area infested, and spaced eight or ten feet apart. Turn the furrows toward the advancing worms, in order that when the worms tumble in the furrows they will have to climb up the smooth, land side in order to get out, then when these furrows fill up turn them under, thereby leaving fresh furrows for the worms to fill. Now army worms work at night and during lowery weather and therefore it will be necessary to keep watch of things all night for the few days that elapse before these worms get full size and descend into the ground.

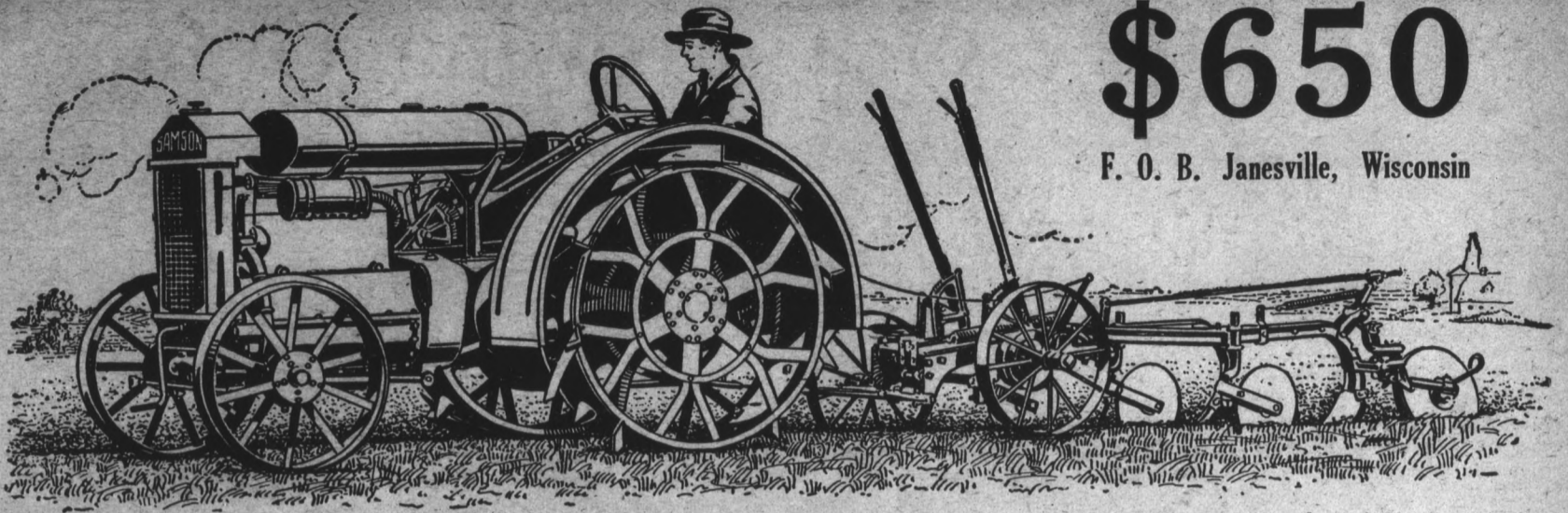
Poison baits are most useful when the worms are scattered

and also they may be used in addition to the ditching. The following formula is one that has been very successful in the past and which is easily filled.

Sift together one pound of Paris green, or three-fourths of a pound of white arsenic (not arsenate of lead), and twenty pounds of bran; add half a gallon of molasses or syrup and a little water, and stir in three oranges or lemons, ground fine in a food chopper, skins and all. This may be broad-casted over from two to five acres of land. It is very attractive to both cut-worms and to grasshoppers. Do not try to substitute any other poison for the Paris green or white arsenic. Neither arsenate of lead or arsenate of calcium will do the work unless very large quantities of the poison are used. Neither should one use this bait where poultry are likely to pick up much of it, although the bait should be distributed in a finely broken up condition rather than in lumps.

R. H. PETTIT,  
Professor of Entomology.  
M. A. C.

DON B. WHELAN.



**\$650**

F. O. B. Janesville, Wisconsin

## Figure on the Value, not on the Price

A tractor must be of greater use to you than are the horses it displaces, if it is to be a good buy. And its price must be practically the amount you can get for those horses and their harness plus the saving in feed.

If a tractor could not take the place of some horses on your farm, you should

not buy one. At any price it would be an uneconomical investment.

Price based on these common-sense views of tractor value is the law of producing and selling Samson Tractors. On this basis only can the tractor industry succeed. The Samson Tractor is priced on that basis.

# SAMSON TRACTOR

Model M—A 2-3 Plow Tractor

The Samson Tractor is a machine designed for only one purpose—to do power work for you at a price you will gladly pay because it makes you money.

**\$650, f. o. b.  
Janesville, Wisconsin**

at first glance seems like a price proposition. It is not. It is what the tractor is worth to the man who should have it at all. That price includes belt pulley and governor. But it does not include platform and fenders—things that affect the price, but not the performance and value of a tractor. They are refinements and their price is \$50 additional.

Production on a big scale, sound design for a farm-used machine, efficient selling methods, make this price possible from our—the makers'—point of view.

In short, farmers themselves may set the value of a tractor, and we with our manufacturing experience and equipment have brought out the first tractor offered on that reasonable basis.

“The Samson Tractor Story”—a little book sent free—is just what its title implies. It is not filled with engineers' data, formulas and tables, but tells you just what you've been waiting to learn about the Samson Tractor.

Clip the coupon for the book and for help in deciding whether or not you should have a Samson. Please fill in the coupon fully and plainly.

## SAMSON TRACTOR COMPANY

Makers also of Samson Tractor Model D and of Samson Trucks

132 Industrial Avenue, Janesville, Wisconsin

The Samson Tractor is made by a division of General Motors Corporation, manufacturers of Buick, Cadillac, Chevrolet, Oldsmobile, and Oakland Automobiles—all national successes. Manufacturers, also, of the famous Janesville line of Plows and Tillage Tools.

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132 Industrial Avenue, Janesville, Wis.  
Please send me The Samson Tractor Story and tell me whether I can use a Samson Model M profitably.

I farm \_\_\_\_\_ acres      Acres in corn \_\_\_\_\_  
 Number of acres improved \_\_\_\_\_      Acres in cotton \_\_\_\_\_  
 Level or rolling surface \_\_\_\_\_      Acres in small grains \_\_\_\_\_  
 Kind of soil \_\_\_\_\_      Acres in hay \_\_\_\_\_

I am using \_\_\_\_\_ horses.      I own \_\_\_\_\_ a tractor. Name \_\_\_\_\_  
 I am \_\_\_\_\_ miles from town.      Kind of roads \_\_\_\_\_      Condition \_\_\_\_\_  
 I \_\_\_\_\_ could not use a farm truck.

Name \_\_\_\_\_  
 Post Office \_\_\_\_\_      R. F. D. \_\_\_\_\_  
 Township \_\_\_\_\_      County \_\_\_\_\_      State \_\_\_\_\_

# The Story of a Growing Grange

FOR more than twenty years Lonsdale has been one of the strong granges of Muskegon county. It has always numbered among its members the most influential and progressive people of the neighborhood, and has been an important factor in moulding the strong sentiment for things that are clean and right, for which the neighborhood has been widely known.

The memory of the writer goes back over the years that have gone, and lingers happily in many a good Pomona meeting and Farmers' Institute, or other social gathering held in Lonsdale Grange Hall. Few indeed have been the meetings of Muskegon Pomona when Lonsdale Grange has not been represented, and I am sure that nowhere else in this truly strong Grange county have there been those who contributed more to the general progress of the order than the loyal sisters and brothers who have kept this grange going for so many years.

In many respects the history of Lonsdale Grange is like that of others we have known. It has seen very prosperous times when it seemed that everyone in the neighborhood wanted to join, and would hardly take "No" for an answer. Then there have been years in which matters moved along quietly, a candidate being received now and then, and occasionally one suspended, the grange hardly holding its own, and all the time the good, faithful men and women who have always carried the heavier part of the burden were growing old. It was becoming harder for them to get out, the attendance was not improving, and I know that now and then some of the best members of this grange were looking into the future with apprehension.

Not that they expected it to die, nor yet to become dormant, but I imagine they sometimes wondered who would take up the burden, and assume the responsibility so long and so willingly carried by them, when the weight of years should compel them to cease active grange work.

Not that they were thinking of quit-

ting at once, they were only looking forward as we all do sometimes, to the inevitable. Notwithstanding that now and then barely a quorum was present at the meetings, and they were weary with overwork, they kept things moving and held many strong meetings each year. During the last few months the grange has lent its influence in the organization of a very strong cooperative selling association under the auspices of the farm bureaus of Oceana and Muskegon counties.

With the opening of the present year came a desire to increase the membership. The wish was so strong that it seemed to get hold of practically the entire membership, and so they went to work. They organized a contest, chose sides and business began in earnest.

Early in the summer the writer visited the grange at a big meeting in honor of the newly initiated patrons, and the reinstated members. At the beginning of the year Lonsdale Grange numbered sixty souls, during the contest to which we have referred a hundred and eighty-one members were added, and more have been coming in

since. To use the vernacular, "They have made a clean sweep." They can not add any more to the membership until more people move in, or conclude to travel a longer distance to attend grange.

It is no light task to carry on a grange successfully when so many new members have been added, but the challenge should bring out the very best there is in the officers and members upon whom the responsibility devolves.

It was good to be at the meeting to which we have referred. We have seldom been in a gathering like it. There were people who might have been in this grange working for the great objects of the order for years, had the matter but been presented to them in a way to make them see their privilege and their duty. With them were some of their new neighbors but lately come from a great city to try their fortunes out on the land. Into Lonsdale Grange they have come for help in matters pertaining to the making of a living in the country, and the building of a good rural neighborhood. It is the task of the older members of

this grange to help all who have lately come in through its gates to find the good which they seek.

Seeing and realizing in some degree I think, what it is to increase the membership of a grange in an old community with no appeal to the advantages of fire insurance, or to much of anything else, save the common things of everyday life, we smile when we hear people say that the grange would die, but for fire insurance, or cooperative buying, or legislative work.

Now let us make no mistake—all these things are necessary, very necessary, and because they are, they help the grange that pushes them. But upon no one of them does the grange rest, and it might live, and farther, it would be worth while, even if it did none of them.

I repeat, it ought to give its strong support to each of these lines of service, but even if it did not, and if it served as a community center when neighbor met neighbor in friendly contact, where kind words of appreciation were spoken and kindly deeds performed, if it encouraged the visiting of the sick, the assistance of those who were in need of help, if it sought out the poor fellow who had gone wrong and endeavored to bring him back, if it shunned envy, rash judgment and hasty critics, it would be worth while, and if in addition it furnished a social and an educational center for the young, training them to sing together, and helping them to become writers and speakers it would do still more for the community, and if it might crown all with the fine spirit of Fraternity and of the "Charity that suffers long and is kind," then no one has yet been able to estimate the value of that grange to the community.

May Lonsdale Grange, Muskegon county, prove to be just such a power for good in the community where it is located and somehow, may the spirit that actuated the membership of this grange in the early part of the year, get hold of a hundred more like granges in Michigan with similar results.

W. F. TAYLOR.



Lonsdale Grange, with its New Membership.

## Antrim--County That Holds a Free Fair

COUNTY fairs have been recognized for years as one of the best mediums of education for all the public. The town and city people who attend the county fair take as much or more interest in the agricultural exhibits as do the farmers.

The different exhibits of produce and live stock not only please the eye, but create a desire to grow or raise better produce and live stock in the hearts of men and women who see them here at the fair.

Not only does the farmer feel this desire, but the city man who has some money to spare and a liking for farm life feels the call in many cases and engages in the production of something beneficial to humanity. Hundreds of men have been started on the road to success by determining to raise registered live stock by seeing some of the breed which he fancies exhibited at the fair.

The Antrim County Board of Supervisors, being a body of men who believe in progressive methods and who are always looking for good constructive advancement for their county in all lines, have seen the benefits which come to the people in the county fair.

They have also put much thought on the subject and studied the problem from all angles and when some years ago Mr. Sam Owens suggested

that this county hold a free fair, the board began to consider the advantages of the plan, with the result that in 1918 the first Free Fair was held which was financed by taxation.

There is no question that comes before this board where the benefits are clearly shown, that does not receive the unanimous support of the board. They saw the benefit to all of the county and where all of the property holders should pay the cost of conducting the fair.

The largest property holders, like the Antrim Iron Company, which pays one-sixth of all of the taxes of the county, and the East Jordan Lumber Company, another large holding company, have given their support to the Free Fair.

Men who own large farms have said that they were converted to the Free Fair idea, when they came and saw so many children there whom they had never seen before when the pay-as-you-enter plan was conducted. These men are loud in their praise of the plan.

Nearly all of the county fairs are helped by appropriation from the county and as long as the county has to furnish part of the funds, why not all of it, and then the cost comes where it belongs, on the large property owner and the small, according to their worth. In many of the richer

counties of the state a very small tax levied on the rolls would give more money than they ever had before, and the committee which conducts the fair would not be worried about the problem of weather, which is the one big gamble at the time of year when the fairs are held. They could go ahead and provide a creditable fair and feel that the bills would be met, for the money is there.

This year the Antrim County Board of Supervisors appropriated an additional sum of money for the entertainment of all of the soldier boys in the county and surrounding territory.

This will be one of the good features of the fair this year. Tents will be provided and provision for the boys all during the fair, and the people will have a chance to see their boys in line and in drill work.

A high-grade line of free attractions are always provided, and with the racing and ball games we feel that we are going to have one of the best fairs in the state and we are sure that the plan is the one best bet for any county.

On account of the registered live stock campaign which has been conducted in this county, and the large number of good animals which have been brought into the county in the last year, we know that there will be a live stock exhibit.

When people invest their money in good cattle or other live stock, they like to show them, and no other place offers the opportunity that the fair does. The free fair offers the exhibit or a wider field for his exhibit.

The attraction which pays for the privilege of showing on the fair grounds, will pay a great deal more for that privilege when there is no admission charged, for there will be many more people and they will have their money which ordinarily go for admittance, to spend for seeing shows or riding on the merry-go-round.

All arrangements for this fall's fair have been made, but it will be of benefit to those who are having tough times in making both ends meet, with their fairs, to look into the plan and give it serious thought.

The good crops of fruit and other crops that have been raised in this county will be exhibited at this fair and the advertising feature will be worth all it costs the county in taxes.

There have been other fairs called free fairs, but they have been supported by private subscriptions which did not meet the expectations of the supporters and they failed.

By taking this feature is entirely done away with and we believe we have a plan of conducting a fair that is right for all time to come.



# What can a man Learn from Looking at a Tractor in a Tent

**I**F you have ever been to a tractor demonstration, you probably know the earnest way some salesmen have of taking you into a tent and pointing out all the fine points of the tractor they are trying to sell.

They will show you its engine and its wheels and its gears and its clutches, and tell you why they are better than those of any other tractor on the market.

Now, the intelligent farmer, when he goes to look at a tractor, wants to be shown by the tractor itself.

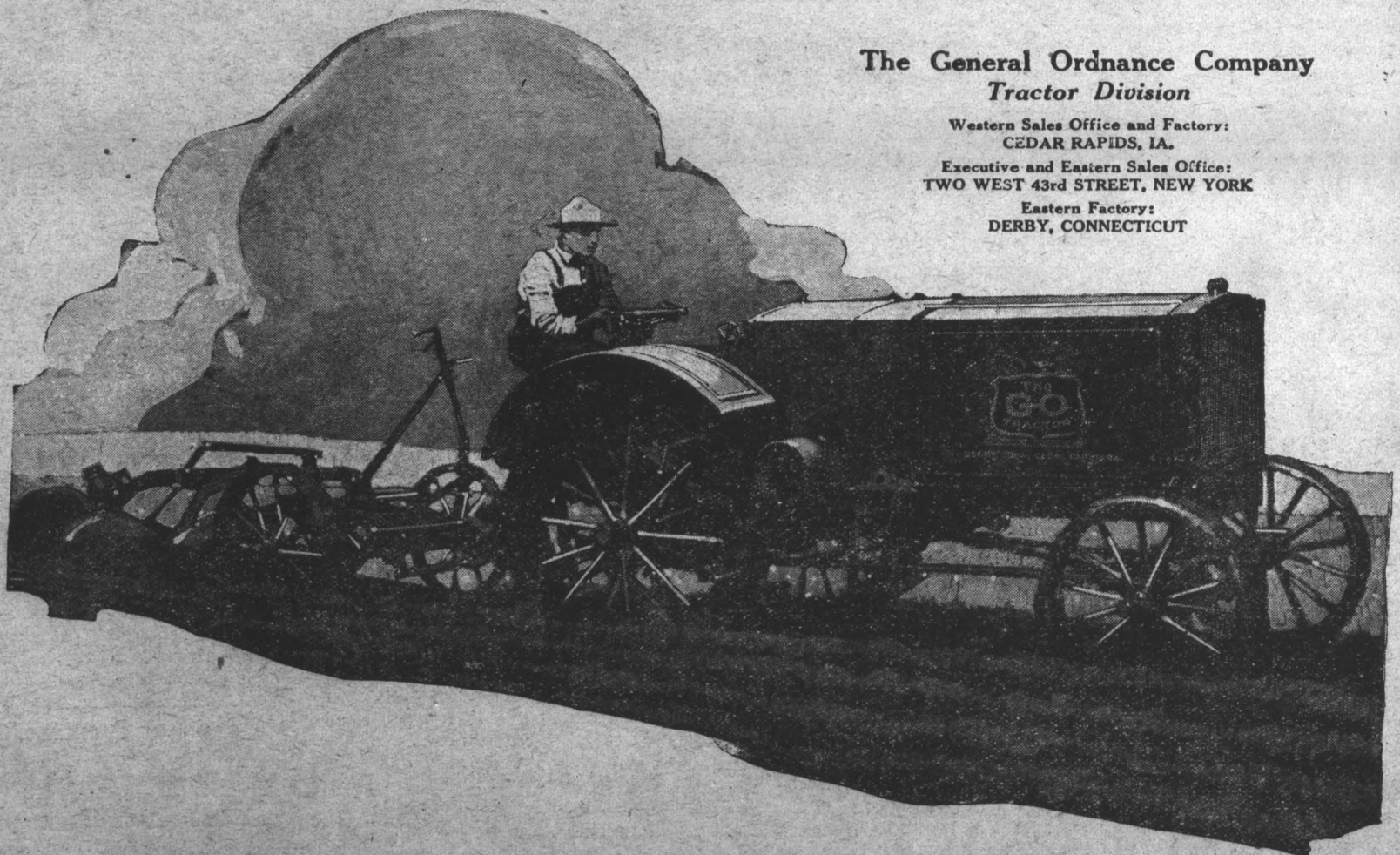
For eight years the G O Tractor has been showing farmers all over the country just what they wanted to know. It has shown them that it can do anything they want it to, and do it economically, and keep on doing it.

There is nothing "eye-filling" about the G O Tractor. It is a four-wheel, four-cylinder tractor—the simplest and most practical construction known. There is no loss of traction

due to the shifting of weight to the wheels of the implement. Its pull increases as the traction increases, because the drawbar is free-swaying — not rigid — eliminating all side draft and making it safe on hills.

The G O driving mechanism is the biggest advance in tractor engineering which the industry has seen. It gives six speeds forward and six reverse—a right speed for plowing in any sort of soil; a right speed at the belt pulley for any kind of machine. It is so easily controlled that even a child can operate it. All gears are enclosed in a dust-proof oil bath, adding years to their life.

The facts about the G O Tractor are open to anyone who is looking for sound, common horse-sense—not features or talking points. You may be interested, also, in knowing more about the company behind the G O Tractor—its guarantee and its idea of what constitutes real service. A post card today will put you under no obligation.



## The General Ordnance Company Tractor Division

Western Sales Office and Factory:  
CEDAR RAPIDS, IA.

Executive and Eastern Sales Office:  
TWO WEST 43rd STREET, NEW YORK

Eastern Factory:  
DERBY, CONNECTICUT



**A LAND CLEARING CONTRACT.**

Ten years ago, A purchased cut-over land, paid part, and went to work clearing and pulling stumps. He soon found himself unable to continue, so he turned it over to B to furnish the means for building and stock, with the understanding that A should stay on the place and keep on with the work. No provision was made as to wages; time has gone on satisfactorily until lately, when other parties, coming in, have made things unbearable for A. Dissolving this partnership, what can A claim? N. J.

There are three possibilities in this case, depending upon the nature of the transaction when A turned the land over to B. If the money A got was taken simply as a loan, then A would simply have to pay back the money with interest. If, on the other hand, the transaction was in the nature of a sale, then A would have at best a right to reasonable wages for the period since the sale. If, in the third place, a partnership was formed, the law would, in the absence of an agreement covering the matter, presume that the proceeds and property on dissolution would be divided equally, and A would have one-half of all the profits or losses.

It is a question of fact for you to determine, just what was the intention of the parties at the time when "A turned it over to B."

JOHN R. ROOD.

**SELF-SEEDING OF CLOVER.**

I have a field that was cut for hay, a mixture of clover and timothy and a second crop of clover has come up but it is very thin and scattering. The field needs a crop plowed under. Will I get a better catch of clover than I have now if I leave the clover to go back on the ground and let it self-seed for next year? Lapeer Co.

F. E. W.

You can place little dependence on self-seeding of common clover. It never has proved anything like the success that sweet clover does in this respect. About the only way to get a good full seeding on this field is to plow it and reseed it.

If you attempt anything of the re-seeding sort it would be better to disc the land thoroughly. Just as soon as the seed matures so that it will grow, in this way you would incorporate the seed in the soil and you might possibly get a good stand in that way. But I would prefer to plow the ground and put in some other crop, or you might seed it to clover alone. This is the very best way to get a good stand of clover and seed it just the same as you would alfalfa. Seed it this month if possible, although it would be useless to sow it on fresh plowed ground. The land ought to be well settled, the sub-soil closely compacted and then sow the seed in a fine shallow seedbed. With such preparation you should get good results in seeding clover alone.

My way would be to put this field into corn, beans, or potatoes next year, using commercial fertilizer, and to follow it with wheat next fall, giving another application of fertilizer, then seed to clover again with the wheat. Unless you should have an extremely dry season for the wheat this should practically assure you of a good stand of clover. C. C. L.

**SAND VETCH FOR HAY.**

I read in your issue of July 26 an article on sand vetch and I would like to know more about this plant. What is its feeding value as hay, compared with red clover or alfalfa? Are there any peculiarities in the making of the hay that one ought to know? When should the seed be sown? If sown in

**Our Service Department**

August during a rainy period so that it would grow immediately, would it live through the winter and make hay for the next season? Can it be cut for hay more than once in a season? Is it good for pasture? How much seed should be sown per acre? How soon after sowing will it make hay? Mecosta Co.

J. W.

Sand vetch will stand well up with red clover and alfalfa as a hay crop. It is as rich in protein as alfalfa and when properly cured it is relished by all kinds of stock.

It has peculiarities differing from each of the other plants. The stem is weak and reclining and where one wishes to make it into hay it should be seeded with rye. The rye helps hold the plants up so they can be cut with a mowing machine, otherwise the plants will lay flat on the ground. Sand vetch or winter vetch will live through the winter and will make a splendid growth for hay the next year. It should be cut when it is in full bloom. The plant does not produce a second crop like alfalfa.

The vetch and rye sown together make a very good pasture. A bushel of vetch and a bushel of rye is about the right proportion of seed. The only difficulty with vetch is now that the seed is high-priced. If the vetch is sown this fall at about the time you would sow wheat or rye, it will make a crop of hay next summer. Thousands of Michigan farmers have grown sand vetch and can testify that it is a splendid crop to grow, especially for the improvement of light, sandy land. C. C. L.

**SELECTING THE BREED.**

I have just been wanting to get some one breed of chickens. Just at present have a mixed flock. As we have been taking the Michigan Farmer, decided to write and ask your advice. What is the standard weight of Black Minorcas? Are they suited to this climate, and are they harder to raise than any other breed? How do they stand in egg production in comparison with R. I. Reds or Leghorns? Some say they are just as good as Reds and others say just the opposite. Also, what is your selection for a general farm flock, R. I. Reds, Plymouth Rock, Wyandottes, Cochins, Buff Orpingtons or Black Minorcas? St. Joseph Co.

Mrs. H. B. M.

The standard weight for the Single Comb Black Minorcas is as follows: Cock, nine pounds; cockerel, seven and a half pounds; hen, seven and a half pounds; pullet, six and a half pounds. The Rose Comb Black Minorcas are a little lighter in weight: Cock, eight pounds; cockerel, six and a half pounds; hen, six and a half pounds; pullet, five and a half pounds. The Minorcas are suited to this climate and at least some breeders do not find them harder to raise than the other Mediterranean breeds, such as Leghorns. They are considered good layers and produce large white eggs but not as much trap nesting work has been done with the Minorcas as with the Leghorns. The great fault with all black breeds has been the black pin feathers which mar the appearance of the broilers. When the old hens of the black breeds are marketed they do not make as nice an appearance as birds like the White Rocks or White Wyandottes.

Often the egg-laying ability of the individuals in a breed is more import-

ant than the breed. For example, some Barred Rocks might outlay some Leghorns, while other flocks of Rocks would be far inferior to certain flocks of Leghorns or Wyandottes. It is necessary to cull out slackers and select the best layers in order to improve the flock averages in any breed of poultry.

Some have advised beginners with pure-bred poultry to select the breed that they liked best. This is all right as far as it goes, but the breed must also conform to the requirements of the market where their goods will be shipped. The New York market requires a white egg. The Mediterranean breeds like the Leghorns produce white eggs. If poultry meat is to be the specialty, the American breeds like the Rocks, Reds or Wyandottes, will be satisfactory as they are rapid growers and take on quite a little weight at an early age.

For a general farm flock we would select either the Plymouth Rocks, Wyandottes or Reds and obtain foundation stock from a flock of vigorous bred-to-lay birds. We would not select Cochins because they are slow growers and not usually recommended as heavy producers. We would not select Orpingtons as our market prefers the yellow-skinned poultry like the Wyandottes or the Plymouth Rocks. We would not select Black Minorcas for the general farm flock because of the black feathers. However, we can say that every breed has its advocates who have found it profitable. There are so many factors that enter into success or failure with poultry that nothing is assured by the selection of any particular breed. In the farm flock the birds should have vigor and be valuable for both the production of meat and eggs. The Rocks, Wyandottes and Reds meet the requirements of the average farmer in a very satisfactory manner. R. G. K.

**LAMENESS IN HENS.**

Will you please tell me what to do for my chickens, as I have lost quite a number of them in the last few weeks? The first symptoms are slight lameness, usually in the left leg, which seems to grow worse every day. They get light in weight and finally have to be killed. They are fed corn, oats, wheat, beef scraps, sour milk, and all the fresh water they need. I have been giving them equal parts of nitrate of potash and bicarbonate soda. Now, would you please tell me if the above would be all right for the sick fowls, or do you know of anything better? If so please let me know. Washtenaw Co.

Mrs. G. Z.

When fowls become lame and rapidly become light in weight it is usually due to tuberculosis and nothing is gained by trying to doctor the afflicted birds. They should be killed and burned immediately to reduce the chances of the disease spreading to the healthy members of the flock. It is best to kill all of the birds in the flock and have a veterinarian inspect those that seem to be fit for food. Then start over with healthy stock after thoroughly disinfecting the premises. Of course, if only a few "go light" in a large flock, the remainder of the birds might be of good vigor and very satisfactory for breeding stock. However, it never pays to take risks with a poultry trouble that ap-

pears to be tuberculosis. Plenty of range, a clean house and vigorous breeding stock are the best insurance against tuberculosis in a flock of poultry. R. G. K.

**HARVESTING BUCKWHEAT.**

Will you please tell me all about handling a crop of buckwheat from the time of harvesting until it is ready for the mill? This was put in about the middle of June. Also, what is the best way to handle and harvest green oats as a hay crop? Also what time buckwheat must be cut, and everything else pertaining thereto. Menominee Co.

H. L.

There is no secret or special way in harvesting buckwheat from any other crop. This crop matures rather late in the season, when it is a little more difficult to cure out the straw than wheat or oats, which matures in hotter and drier weather. People used to cut the buckwheat with a cradle and then bind in gavels, and set these up, one in place, spreading out the butts of the straw.

This protects the gavels from tipping over. Harvesting in this way the buckwheat will dry out much sooner, but it is not necessary to go to this trouble. You can harvest it with a binder, set it in shocks and cap same as wheat or oats and if the weather is at all favorable it will cure out in a few days. We would never think of cutting the buckwheat and handling it as they used to, as the self-binder cuts everything.

One does not have to be concerned in cutting buckwheat. Use the same principle as wheat or oats. If you leave any of these crops until they get dead ripe they will shell and there will be a greater loss than if they were cut before they were dead ripe. When the buckwheat seed is in the condition known as "tough dough," that is when you crush the seed with your fingers and the berry is in the consistency of dough, it can be cut; if you crush it between the thumb and finger and it is in a milky condition it should not be cut for a few days. Just as soon as the berry gets to the doughy consistency you can cut it at once. Of course it should stand shocked a while so that it is thoroughly dried before putting it in the barn or stacking it, and then threshed at your convenience.

**Oat Hay.**

Oats should be cut for hay when the berry is in the milky stage; you don't want to wait until the berry is ripe, if you do the most of the food value is in the berry. If you cut it when the oat berry is just in the milky stage or even a few days before, you will have the same food value and it will be distributed throughout the entire plant rather than concentrated in the oat berry. It is best to rake the oats up before they get thoroughly dried and then put into cocks. By curing oats in this way you will save more of the leaves, because when it is so dry, by handling them with the rake and pitchfork many of the leaves will be lost and these leaves are a very valuable part of the plant.

**STORAGE SUPPLIES.**

Provisions held in storage houses all over the United States on August 1 of this year and on August 1, 1918, were:

Article.	August 1, 1919.	August 1, 1918.
Beef .....	162,386,570	146,672,220
Mutton .....	7,273,201	3,000,353
Pork .....	153,894,020	94,334,361
Pickled pork .....	521,507,966	361,568,840
Salt pork .....	380,462,828	400,762,142
Lard .....	91,944,462	107,160,464



**PROHIBITION AND CIDER.**

Is it lawful for farmers to make cider for sale as sweet cider, apple butter, or vinegar, with their own presses or otherwise? R. H.

Yes; it is lawful to make these products. The eighteenth amendment to the United States Constitution, ratified January 29, 1919, reads as follows:

"After one year from the ratification of this article, the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from, the United States and all territory subject to the jurisdiction thereof, for beverage purposes, is hereby prohibited."

The words of the Michigan constitutional amendment follow (Art. XVI, Sec. 11):

"The manufacture, sale, keeping for sale, giving away, bartering or furnishing of any vinous, malt, brewed, fermented, spirituous or intoxicating liquors, except for medicinal, mechanical, chemical, scientific or sacramental purposes shall be after April 30, 1918, prohibited in the state forever."

Nothing in these laws can be construed to prohibit people from making sweet cider, apple butter or vinegar.

JOHN R. ROOD.

**EXTERMINATING THISTLES AND TEAZELS.**

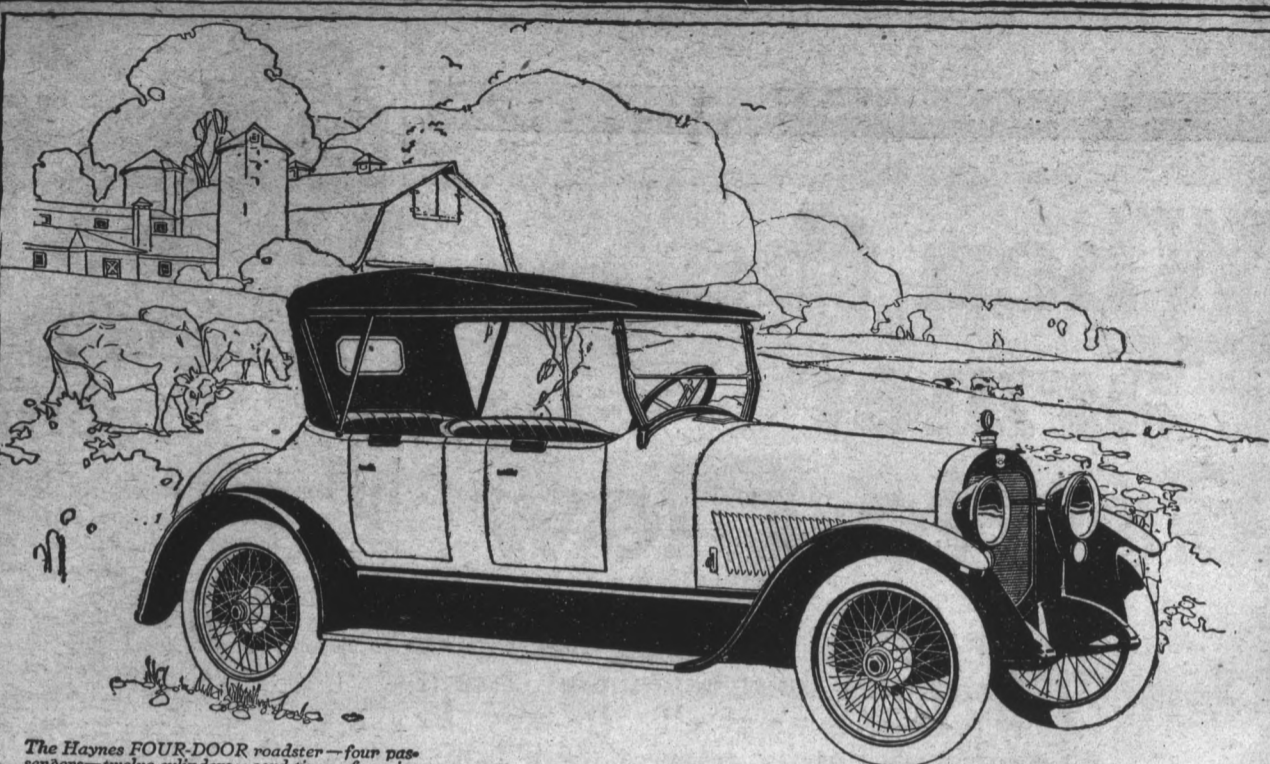
I am a reader of the Michigan Farmer and have noticed your letters and what you say about thistles. I have had quite a bit of experience and have succeeded the best by summer fallowing. It appears to be impossible to eradicate them in corn. Some claim that a good stand of alfalfa will do the work. We have another weed that is getting started in our pastures, and that is teazel. Have you had any experience with it, and what luck. I would be pleased to hear from you.

Lenawee Co. G. W. L.

Summer fallowing is always the surest way of exterminating foul weeds. The only objection to this is that you are losing one crop on the land. If you can so plan that you can raise a crop and at the same time exterminate these weeds, then you have the use of your land every year, but by summer fallowing you lose the use of the land. By good thorough cultivation of any hoed crop, Canada thistles can be kept down to the minimum so that they will not interfere with the growing of crops and will not spread very much. As you say, it is difficult to exterminate them. The reason is because we allow a few of them to grow; we are not thorough enough, even during one entire season. If a plant is not allowed to keep its leaves above the ground it is bound to be exterminated.

Teazels are not difficult to get rid of. Really, they do no bother except in permanent pastures. Where fields are in a regular rotation of crops, that is, plowed twice during the rotation, teazels cannot survive. As long ago as I can remember, teazels came into the permanent pasture on my father's land. At first he was very much concerned because they did grow in a very thrifty manner and crowded out some of the pasture and they spread for a while, too. It used to be my job to mow them in the middle of the summer. Two different times the work fields have been enlarged by taking in a portion of the pasture and in not one single instance have the teazels appeared in the growing crops. Plowing the land kills them and they will run out in the pasture also. Cut them once or twice during the growing season and you will exterminate them in a year or two.

C. C. L.



The Haynes FOUR-DOOR roadster—four passengers—twelve cylinders—cord tires—five wire wheels standard equipment. Price \$3250.

This advertisement copyrighted, 1919, by The Haynes Automobile Company

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ITS FACTORS OF CHARACTER**

BEAUTY, strength, power and comfort—these are the essential factors of character in a car. Real character cannot exist if one factor must be sacrificed to secure another. Haynes engineers and designers have held this principle through all the 26 years of Haynes history—and the new 1920 Haynes exemplifies the worthiness of their skill.

This spirit imbues the entire Haynes organization. The character of the Haynes must not only be built into it at the factory; it is furthermore expressed in the service rendered by Haynes representatives.

The new 1920 Haynes four-door roadster, with its full aluminum body, its roomy seating arrangement, its hand-buffed leather upholstery, its pleasant lines, its powerful, dependable motor—signally shows the character-value of these four factors which distinguish the Haynes—beauty, strength, power and comfort.

In every way consistent with maintaining the character of the Haynes we are expediting deliveries, but we advise promptness in selecting the new Haynes you wish to own.

The Haynes Automobile Company, Kokomo, Indiana, U. S. A.

NEW 1920 "LIGHT SIX" Open Cars		NEW 1920 "LIGHT TWELVE" Open Cars	
Touring Car—7 Passenger	\$2485	Touring Car—7 Passenger	\$3250
Roadster—Four doors, 4 Passenger	2485	Roadster—Four doors, 4 Passenger	3250
Closed Cars		Closed Cars	
Coupe—4 Passenger	\$3100	Coupe—4 Passenger	\$3800
Sedan—7 Passenger	3350	Sedan—7 Passenger	4000
Limousine—7 Passenger	4000		

Wooden Wheels Standard Equipment

Wire Wheels Standard Equipment

Prices are F. O. B. Kokomo.

A new catalog, beautifully illustrated, will be sent on request. Address Dept. 835

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A perfect working self-feeder for hogs. A 100-lb. pig pays for it. Saves on purchase price, time, floor space, repairs and feed. Will feed 40 hogs. Sold direct, \$18.50. Money refunded if not satisfied. For further information address THE ECONOMY FEEDER CO., Box 536, New Washington, O.

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THE BROWN FENCE & WIRE CO., Dept. 149 CLEVELAND, O.

# When the Farmer Has to Plow

**T**HERE comes a time on every farm when work must be done at once if it is to be done at all. It may be plowing, cultivating, harvesting or housing of the crops. When conditions are right the work must be started and pushed with all possible speed if the farm is to pay maximum return that season.

Under such conditions the man on the job has no time to go to town, even to get necessary supplies, and no one on the place can be spared for that purpose.

Some times it is necessary to send in for food, seed, or machinery, but for his requirements of petroleum products, the farmer knows that he will be supplied by the dark, green tank wagon of the Standard Oil Company (Indiana) which calls at his home as regularly, though not as often, as does the man who brings his mail.

He has learned that he can depend upon this delivery service, and that the Standard Oil man will deliver his kerosene, gasoline and lubricating oil not only to his door, but, if needs be, to the tractor in the field—*there are 150,000 tractors in the Middle West.*

This is the reason for the harmonious, close, friendly relations which always has existed between the Standard Oil Company (Indiana) and the farmers of the Middle West. Also this is another reason why the Standard Oil Company (Indiana) takes pride in its position as a public servant, doing an exacting job as well as it knows how, to the distinct advantage of the man who raises the crops and the millions who eat them.

**Standard Oil Company**  
(Indiana)  
910 S. Michigan Avenue, Chicago, Ill.



## Michigan Cooperative Crop Reporting Service

**F**ROM the excellent prospects that result of an abnormal acreage rather than of high yield. prevailed on July 1, a marked decline in all crops has taken place since. The drought that began in June continued until after July 20 before general rains came to relieve the situation. In the meantime pastures had dried up, the growth of all cultivated crops checked, the ripening of hay and grains hastened, and fruit prospects decreased. This is the substance of the joint report issued by Coleman C. Vaughan, Secretary of State, and Verne H. Church, Michigan Field Agent, United States Bureau of Crop Estimates. Harvesting is nearing completion and threshing is in progress. Yields of wheat are generally good, but rye is disappointing many growers. Oats and barley are light in yield and short in straw. Corn, potatoes, beans and sugar beets withstood the severe drought remarkably well and are in a condition to improve, except in occasional local areas. Fruit prospects show a further decline.

The estimated yield of winter wheat is 19.5 bushels per acre, which is considerably above the ten-year average and the largest crop in the last fifteen years, except that of 1915. The total production is placed at 19,247,777 bushels. Extremely hot weather, rust and smut have produced some shrunken grain in localities but, on the whole, the quality is fairly good. Based upon the reports of mills and elevators, 990,000 bushels of wheat were marketed during July, which practically cleans up the 1918 crop. The condition of spring wheat is sixty-six per cent, indicating a crop of 915,000 bushels; the yield per acre is 14.0 bushels as compared with 19.2 last year. Corn withstood the effects of the dry weather to a remarkable degree, and only small local areas "fired" to an extent beyond recovery. The condition during the month declined from ninety-seven to eighty-three per cent. Allowing forty per cent of the acreage to be cut for silos, the estimated grain production on the remainder of 34,400,000 bushels.

The condition of oats has declined eleven points to sixty-two per cent since July 1. This represents a yield of 24.5 bushels per acre and a total production of 38,180,000 bushels as compared with 66,320,000 last year. The crop with unfavorable weather conditions from the beginning, developed a thin stand, short straw and light heads. The estimated amount of last year's crop still in farmers' hands is 4,642,000 bushels. Barley suffered similarly with oats, the condition declining from seventy-six to sixty-five per cent during the month. The yield will be about nineteen bushels per acre, which will give a total production of 5,369,000 bushels. The estimated amount of last year's crop remaining on farms is 250,000 bushels.

The threshing returns on rye show disappointing yields. There is an abundance of straw, but the hot weather during the filling period reduced the quantity and lowered the quality of the grain. The estimated yield is 16.0 bushels per acre, giving a total production of 9,136,000 bushels. This relatively large production is the re-

sult of an abnormal acreage rather than of high yield. The acreage of buckwheat is estimated to be twenty per cent less than last year, and the hot and dry season has given it a poor start. From the present condition of seventy-three per cent, the 62,000 acres sown should produce a crop of 792,000 bu.

While early potatoes are yielding very poor returns, the late crop withstood the drought fairly well except in some southern counties. The recent rains will undoubtedly cause some improvement in the prospects. The outlook was reduced during the month from a crop of 31,250,000 bushels to one of 27,845,000.

The hay crop was secured in excellent condition, and is estimated to be 5,282,000 tons. The total acreage is five per cent less than last year, and that of clover is fourteen per cent less. The yield of clover is 1.15 tons per acre.

Beans have suffered less than most of the other crops, only occasional fields showing yellow leaves, which is the first sign of maturing. The present outlook is for a seventy-seven per cent crop, or 3,262,000 bushels, a decline of thirteen points during the month. The condition declined in New York one point, to 90; Colorado, four points to 70; New Mexico, two points to 90; and California, four points to 78 per cent.

There has also been a decline in fruit prospects. Apples are now estimated at thirty-nine per cent of a full crop; peaches twenty-five; pears fifty; grapes eighty-five, and raspberries and blackberries seventy-five per cent. Winter apples are scarce except in occasional well-kept orchards and where the crop happened to be light last year. Early apples, particularly the Duchess, Yellow Transparent and Wealthy varieties are more plentiful. The prospects for peaches, apples and pears are the best in Oceana, Mason, Manistee and Benzie counties, the percentage of a crop decreasing in all directions from this area. The commercial apple crop of the United States is estimated at 23,100,000 barrels as compared with 25,404,000 last year; the commercial peach crop, 29,800,000 bushels, as compared with 38,969,000; and the commercial pear crop, 8,400,000 bushels as compared with 10,342,000 bushels.

The condition of sugar beets is excellent in portions of the "Thumb" district, but they have suffered more or less in other sections from dry weather, insects, disease, and a shortage of labor for thinning. The present condition is seventy-two per cent as compared with eighty-five per cent last month and eighty-nine one year ago.

The amount of grain and seed threshed, as reported by threshermen up to and including July 26, is as follows:

Crop.	Acres.	Bushels.	Bush. Per Acre.
Winter wh't...	179,824	3,790,477	21.08
Spring wh't...	2,477	39,455	11.89
Rye .....	125,239	1,914,989	15.29
Oats .....	4,215	93,402	22.16
Spelt .....	366	9,456	25.84
Barley .....	10,681	175,445	16.43
Tim'y seed...	44	119	2.70
Clover seed...	1,156	2,216	1.91

## Keeping Stock Well

By Dr. W. C. Fair

**F**OLLOW the simple rules of practical live stock sanitation and you will be surprised how easy it is to keep your farm animals well. Avoid housing or stabling your live stock in dark, damp, badly ventilated buildings. Endeavor at regular intervals to furnish your stock with a good quality of food and water, and be sure that they have plenty of both. It is important that farm animals have some daily exercise, even if it is only a short walk. The question arises, can the owner of live stock afford to ignore the common and well known simple rules of sanitation? I say no.

Now, then, are the five or six million farmers and stock men of this country doing their level best to keep their animals healthy, also to prevent the spread of infectious and contagious diseases? I doubt it very much. It is true that many of the stables are entirely too small, for the number of animals kept in them, besides the barns are too often located on low land, which if not properly drained are usually damp and decidedly unhealthy for stock. Many stables are poorly lighted and without sufficient ventilation. For sanitary reasons the floor of a stable should be composed of other material than wood. Every stable should be drained, cleaned out daily and disinfected once a week. It is a mistake to allow urine and excrement to remain in a barn for any great length of time. It should be hauled out onto the lot or deposited under cover some considerable distance from your stable. The well is often situated too near your barnyard, drippings and leachings from the manure may make its way into the well. This infected water is almost sure to sicken and perhaps cause the death of some of your stock. It is not expensive and a very good plan to occasionally pour some kerosene in your barnyard, and a few days later taste and scent the well water. If the sap of the barnyard is making its way into the well, you will be able to scent and taste the oil. If possible keep your barnyard clean, and avoid storing much manure in it at any one time. For convenience some farmers throw droppings from stock out of stable windows, and here allow it to accumulate for a long time. This is decidedly unsanitary, especially if you keep cows.

Feeding stock badly cured grain or fodder will frequently sicken them, producing a sort of forage poisoning. The under-feeding of live stock lessens their power of resisting diseases. When live stock are stabled and deprived of fresh air they will not thrive. Every barn should be equipped with ventilators, fresh outside air should be admitted and the foul air allowed to escape.

It is well to keep in mind that disease is the functional, or structural deviation from the normal or healthy standard. It is, of course, that condition which obtains where a living being or animal is unable to adjust itself to its environment. The cause of disease may be divided into two groups, viz., predisposing and exciting causes. Predisposition to disease includes all conditions which diminish an animal's resistance and thus render them subject to the specific exciting causes of disease. Here is where heredity is often charged with being the cause of the disease, or ailment. The most important active causes of diseases are of a parasitic nature, and can be transmitted from one animal to another, from farm to farm, county to county, state to state, and nation to nation. In this way tuberculosis, glanders, and many other infectious and contagious diseases have become world-wide in distribution. Immunity is that power of resistance possessed

(Continued on page 219).



# TEXACO

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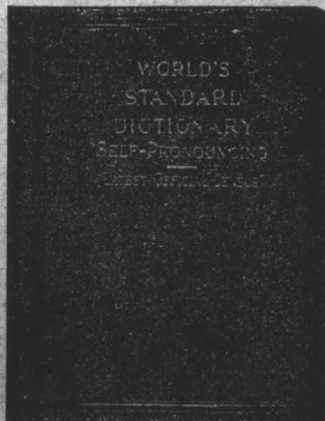
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The Michigan Farmer, Detroit, Mich.



# Is the Cow Testing Ass'n Worth While?

By W. F. Taylor

A YEAR ago last June we organized an association of this kind in our county, and just before the close of the year's work, our tester was obliged to resign on account of sickness in the family. We secured a temporary substitute and finished the work, but things came to a standstill, several parties did not care to test any longer, and we were obliged to secure some new members before beginning again.

The county agent and the writer drove over the territory and signed up the necessary number. On this trip we listened to several remarks that seemed to us appropriate to this discussion.

One of our members said, "We had a cow in our herd when we began testing last year, that we did not expect to keep. We felt sure she was losing us money, though we had not tested her. During the year just closed she has produced a hundred dollars worth of butter-fat above the cost of her feed. We didn't know her very well after all, did we?"

"Sure, I want to go in again. We have some heifers coming in this winter and we must find out what they are good for."

Another man, a good farmer, said: "I have thought it all over and don't want to join. I can test my cows better, or cheaper, myself than I can get it done through the association, and not have the tester to bother with." "But will you test them regularly?" "Well, no, probably not, but then, I am not a dairyman, and don't want to be."

As I recall now, we found but one man who does care to be known as a dairyman, who thought it would not pay to belong to such an association. He is doing his own testing regularly, and feels that he can do it for less money than he could in the association. His interest in the work will keep him testing more regularly than most men, and I presume he will be able to tell a good deal about his cows by the number of tests and weighings he makes in this way.

But what are the advantages of the cow-testing association?

First, the owner is enabled to ascertain the production of each cow for a given time, and to ascertain the cost and the amount of feed she consumes.

The history of all testing proves conclusively that men rarely if ever know much about the value of their cows as individuals until they have tested them.

Variations in the test illustrate the importance of regular testing, and prove how little one can tell about a cow by testing her now and then when he happens to feel like it, and has the time.

The good dairyman will feed a cow according to her performance, and no man can tell what the cow is doing by simply weighing her milk, much less by guessing at the amount.

If the cow is tested each month, she may be fed according to her work, and the influence of different feeds may be noted.

It is important that a dairyman should read dairy literature, but it is just as necessary that he should know cows. Yes, a dairyman should know much about cows—the more the better. The more cows he can know, the better dairyman he will be. If he tests

his own herd, he will know his own cows perhaps, but they are few in number compared with cows in an association. If he enters the cow-testing association he may know all the cows in it. As we have said, it is very important that we read dairy literature, but this will do us little good if we do not know cows.

It is worth all it costs in the association, to be able to examine the records and see what some of the best herds are doing, and how they are fed.

One of the advantages is the pleasant and helpful rivalry that springs up among the men in the association. It is not natural to like to be left behind. If I find my neighbor's cows doing much better than mine, I want to know the reason, and if possible, I will remedy the difficulty. Perhaps I will go and see his herd at milking time, and note his method of feeding. I have seen the record of his ration in the book, and am prepared to get more out of a visit to his herd on that account.

Through the association we are going to find out what cows to keep, and which cows to sell. No, we are not going to keep still and sell those poor cows to our neighbors. If they are not worth keeping, the butcher is going to get them. But we are going to find them out, and the "Babcock test" is the only method that will accomplish this for us.

Lastly, the cow-testing association is one more method of expression of the spirit of cooperation that is growing rapidly among us. The spirit of cooperation is the spirit of brotherhood.

One can not long be a member of a cooperative cow-testing association without feeling a new interest in his herd and without taking a much greater interest than before in the welfare of those associated with him. With each member more interested in his own herd, and feeling a new interest in the bettering of the herds around him, we have a most desirable situation in the community.

Out of our experience during the past year, has come a stronger desire for success on the part of some beginners in dairying. We are planning, if possible, to make our association this year a school in dairy methods. We do not look to the tester to instruct our members. I doubt if that is often possible in practice, though the theory is advanced now and then to induce people to enter the work.

It would be extremely difficult to secure a man to test our cows who could tell us much about feeding that we do not already know. Such a man would cost us more than we could pay. But in our community are some of the most successful dairymen I know in the state, and it is our plan to have one of them visit each man in the association, two or three times, six or

eight weeks apart, and give such help as he may find possible. He will examine each cow, note her general condition, the ration she is receiving, the amount of milk and butter-fat she is producing, and will advise as to the care, and the amount and kinds of feed she should receive. We have taken care this time, to have the members of our association near together, and such a man would be able to cover the territory in less than three days. If we can pay him for three visits two months apart, this will cover half the year. By that time, each man should have acquired sufficient experience and information to enable him to feed with much better results than he could otherwise have done.

I confidently look for more help from this feature of our work than from the others.

It is our hope, and I can almost say our expectation, that through the cooperative cow-testing association we may discover a considerable number of men who are determined to "stay by" until they become successful dairymen, and competent breeders of pure-bred cows.

Nor will our task be accomplished when this, our present dream, is realized. There is no such thing as reaching the limit of human possibility in this work. The chance of producing a greater cow than the world has yet seen, is open to everyone who wishes to strive for it. It may not, and probably will not, be our privilege to accomplish this, but great things are sure to result from our efforts if we stick.

## SOME TRACTOR ADVICE.

TOM DOAN, who has a farm of eighty acres, has used a tractor successfully for four years. Calling on him recently I obtained his experience in regard to his investment.

"Nearly every farm in my community could be bettered with a tractor," he told me. "But many farmers make a mistake by over-estimating what the machine will do.

"I recently saw a man trying to draw an overloaded wagon with a light machine simply because he liked to 'see her dig.' It 'dug' the road all right and also twelve dollars from his pocketbook in repairs.

I make it a point to estimate my load—the condition of the ground, etc., before attempting to pull. I can draw stumps, drag roads, or fill the silo with very little trouble, simply by studying conditions before I begin. Side-pulling due to careless steering is another cause of trouble. Such trouble can be remedied by the use of a small mirror, attached to the fender of the tractor; it enables the driver to see his load behind, without looking back."

"With the one-man tractor," continued Mr. Doan, "I can pull two plows

and a harrow or drag at the same time under ordinary soil conditions. This saves me three extra days' labor each week.

"When I finish my work it takes only one day with my team to plow out corners, around stumps, etc. When I haul my fertilizer from town, I secure enough orders from my neighbors to make up the right load and not only save three trips with the team, but make enough extra to pay gasoline and oil expenses.

"Always care for your tractor as you do your car. Keep it in the shelter, when not in use. Go over it often, remove carbon, waste oil, dirt, etc., from the engine. Keep it working smoothly and you will seldom have cause to find fault."

F. R. COZZENS

## SHOE-PRICE DROP SEEN BY DEALERS.

PREDICTIONS of a decided drop in the price of shoes were made by leather dealers and shoe manufacturers, who testified at the grand jury investigation of the high cost of living. The consensus, however, was that the decline might not come for another year.

Witnesses said the people demanded a high grade of shoes and were willing to pay for them. One leading firm, it was brought out, had millions of dollars' worth of cheaper grades of sole leather on hand which manufacturers would not buy because it did not come up to the standard demanded by purchasers of shoes.

## KEEPING STOCK WELL.

(Continued from page 197).

in some degree by every animal, and it is due to a combination of protective material substances that are much alike in all animals, with one exception, namely, that peculiar type known as natural immunity. It is rather strange that one animal sickens and another escapes the infection; however, we usually find the strong, robust, healthy animal is the one that survives. It must be admitted that this matter is none too well understood. We have but two kinds of immunity; first, natural, which I have mentioned; second, usually termed medical. Immunity is no longer a theory; it is a science fully as well understood as psychological actions of drugs.

Every farm should be equipped with a small building, suitable for hospital purposes, where sick animals can be cared for until they recover. This building can also be used for the detention of new stock, until you ascertain if they are free from disease or not. This is an important step in the direction of preventing the spread of disease. Diseased animals are sometimes sold, you may be unfortunate in purchasing one of them. If you hold the animal in quarantine for three weeks it will generally determine as to whether they are diseased or healthy. Never allow the carcass of an animal to decompose on your farm, either bury it deep, or burn it.

Familiarize yourself with the common symptoms of diseases, but when in doubt as to what the ailment is, promptly call your veterinarian, who should be qualified to make a correct diagnosis of the case.



"DON'T CRY OVER SPILT MILK."

IT'S good advice—crying don't save the milk; but this old adage also infers that we should prevent the spill.

There is a big spill in the dairy world today. In many sections a drought has been prevailing of more or less severity. This is not new; we have these in various parts of the country every year, the kind of drought which burns up the blue grass and renders it tough, hard and dry. This weather also seems to breed flies, and the dairy cow is put to the most severe test of the whole year. Professor Van Pelt has aptly summed up the severity of this season when he says that if this period extended six months it would either kill or ruin the bulk of the dairy cows of the country. Every milk producer knows the trials of July and August. Hot nights, dry pastures, poor water, flies and mosquitoes, and everything to torment the peace and quiet of the gentle cow. Reports from most of the creamery sections indicate that the shrinkage in production from June 15 to August 1 has already ranged from twenty-five to forty-five per cent. This in terms of millions would astound the nation, for it truly runs into scores of millions of dollars in many of the prominent dairy states.

A good deal of this spill can be prevented, and that without very much expense. The summer silo is the cheapest and most practical way to combat this season. Good corn ensilage can always be had, and at this time it can be more profitable and better feed than pasture which in most cases is a minus quantity. A very good use for corn is to soil it and prevent this big shrink. No cow-keeper ever made money by allowing his animals to shrink and fall off in milk when there was a good corn field over the fence and a corn knife handy. A stable that can be darkened by curtains will largely solve the fly question; and with a good supply of succulent feed and fresh clean water, the dairy cow can be made to produce in dog days as in the days of early June. The poor unprofitable winter strippers are now being manufactured and multiplied by tens of thousands. It is worthy of a hard fight to prevent this spill; but it seems to me that the time has come when there should be universal effort to meet this contemptible season. Our friends in the northeast tier of states have little trouble with the dog day shrink, for their pastures are more likely to be green. This advantage has made them prominent dairy states, but outside of this short season they have no advantage—in fact, in many sections further south forage is cheaper and more plentiful while the winter months are less severe. Winter dairying has been advocated for many years as a cure for this shrink season, but for some reason it has not been put into general practice.

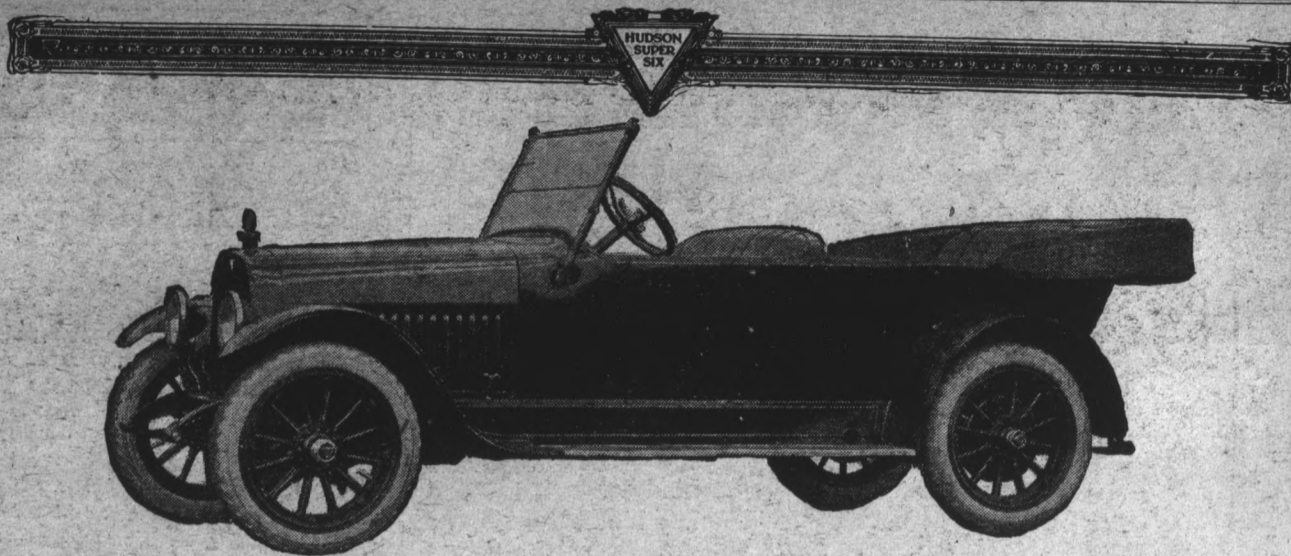
In closing I wish to make the statement that it is possible to prevent at least seventy-five per cent of this shrinkage, and it is not only possible but very profitable to practice the methods of prevention. With a few comforts and plenty of succulent food to the dairy cow there will be no spilt milk to cry over.

A. L. HAECKER.

FARMERS ARE COOPERATING.

THE cooperative effort of farmers of Indiana in producing better crops is shown in the community limestone crusher. Agricultural agents report that in many districts farmers combine in the purchase of the crusher and that they have community stone-crushing "bees."

It is not the good dairy hint you read about that helps you on. Try the suggestion out. Locked-up gold shines to no purpose.



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New Hudson models are not mere changes in body design. Such attractiveness is not overlooked. The main effort has been to increase endurance, to free it from the faults common to all cars.

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Each added quality has been proved in a thousand ways. The speedway, road racing, mountain climbing, trans-continental touring at express speed, did their part. Spectacular records were established, but long after details of the world's fastest mile for a stock chassis, or the double run from San Francisco to New York and return, had been forgotten by the public, Hudson engineers continued to profit by the lessons learned in those tests. Subsequent models showed the result.

Such a car would have been impossible without that experience. We did not enter racing to win prizes but to learn how to build a better car.

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## The Potato Wart

ANOTHER undesirable immigrant to our soil is prohibited from having arrived in this country from several years. As a means of stamping out the disease in small garden plots, soil sterilization is suggested. Another experiment to discover means of wart prevention is the growing of many varieties of potatoes in infested soil to determine their resistance to the disease.

It is highly important to the government and equally so to growers in all parts of the country where potatoes are grown for market, that the first indications of an infestation be reported to the county agent, or to the state experiment station. Mr. Hesler and other field agents from the Department of Agriculture at Washington are traveling through the potato districts in New York state and Pennsylvania for the purpose of getting trace of infections of the wart if there be any, and they are asking the growers to keep watch at digging time for potatoes with warty outgrowths. If the growers are properly informed as to the symptoms of the potato wart and its seriousness in crop loss, the plant disease specialists believe they will willingly cooperate with the government in its efforts to control the disease, and that it can be confined within the present infested area and in time completely eradicated.

The disease has not been reported in New York state, but we have some reason for suspecting that it may have crept into our state just as it did into Pennsylvania. We have definite records from the customs house in New York City showing that several hundred bags were sent to about fifteen different cities scattered over the state of New York. Doubtless many of these potatoes were redistributed to other cities. Of course, we understand that this stock was bought for table use. Nevertheless it was doubtless planted in gardens in many cases.

The particular thing which interested the government is whether this disease occurs in New York state, and if so where; and, of course, if it shows up, we will expect to find it in gardens in cities and villages and measures will have to be taken in the event the disease is found, to prevent its extension to commercial potato growing centers.

There is little doubt but that if the disease gets into our commercial centers of this state, it will greatly handicap the growing of potatoes and perhaps ruin the industry for several years. As you can readily see, it will not be possible to inspect the thousands of gardens and fields within the state for this disease. Consequently we must depend upon a publicity campaign primarily to yield us the desired results. We feel that the public press is one of our best agencies through which to reach the gardener and the commercial grower.

The wart may be identified, according to the plant disease specialists, by small spongy outgrowths on the potato. Infections usually start at the eyes. These increase in size until in some instances the entire potato becomes a warty mass, unsalable in the market and unfit for food. The younger warts are light brown, but become black after the decay begins. The growth of the plant is not affected to any great extent by the wart, making detection of the disease extremely difficult before time of digging.

The government evidently has not found any methods whereby the home gardener or commercial grower can stay the ravages of the disease in a growing crop. The infested area in Pennsylvania has been placed under quarantine, and the growing of pota-

atoes on infested soil is prohibited for several years. As a means of stamping out the disease in small garden plots, soil sterilization is suggested. Another experiment to discover means of wart prevention is the growing of many varieties of potatoes in infested soil to determine their resistance to the disease.

### IMPROVING LIVE STOCK.

THE Mecosta County Farm Bureau adopted as part of its year's program of work the improvement of live stock in the county and instructed their agricultural agent, Paul H. Smith to spend considerable time along this line.

As a result of this work there was recently organized the Mecosta County Jersey Breeders' Association. Very few of the charter members of this association owned registered Jerseys, at that time. However, they selected a committee from their membership to purchase a carload of registered Jerseys for distribution among members.

The committee spent two days driving through Kalamazoo county piloted by county agent Jason Woodman, and one day in Allegan county, under the direction of County Agent Bentall.

Twenty-four head were purchased as follows: From C. B. Wehner, of Allegan, five two-year-old heifers, one three-year-old cow, two four-year-old cows, and one yearling bull. From C. F. Maskey, of Allegan, two two-year-old heifers, two yearling heifers, four three-year-old cows, one five-year-old cow and two six-year-old cows.

These were distributed among seventeen members of the association and in most cases are to be foundations for herds.—S.

The wise use of cover crops will conserve the fertility of the soil and better its physical condition in many cases. Every farmer should consider their possible advantageous use at this season of the year.

When the strenuous labors of the harvest period are over, the haying and harvesting equipment should be promptly housed. The neglect of farm machinery was always costly, but it is doubly so under present conditions.

There was never a better time than the present to cull the flocks and herds and sell the unprofitable animals. The poor producer involves a greater loss, just as a good producer returns a better profit under present price conditions.

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**WART POTATO DISEASE.**

**T**HE Department of Agriculture at Lansing has sent out warning to farmers regarding a potato disease which has appeared in the middle states. A survey is now being made in Michigan. The "wart" first appeared last year, believed imported in potatoes from Europe in 1912. Farmers are asked to report to Lansing the appearance of wart at once. The "wart" is caused by a parasite.

The United States Department of Agriculture gives the following as the signs of the disease: "The first evidences of wart are small spongy outgrowths on the tubers, especially at the eyes. These increase in size and may grow as large as the potato itself. Not infrequently a number of warts may arise at different places on the same tuber, causing the whole potato to become a spongy, warty mass. In the early stages the warts are light brown, the color becoming darker and finally black with age. Badly diseased potatoes decay in the field and those less seriously attacked are extremely susceptible to rot in storage. Wart does not kill the potato plant and seldom interferes seriously with the growth of the potato vines; therefore the detection of the disease is difficult or impossible before digging time."

**BUILDING BETTER HERDS REQUIRES PLUCK.**

(Continued from page 187).

duction the problem of selecting a better bred bull to mate with them increases. As a rule, the better the cows in the herd the more one is safe in investing in an improved dairy sire.

The returns from an investment in a pure-bred breeding bull will depend very largely on how the investment is increased. Perhaps if you have a number of cows that have made creditable milk and butter-fat records an investment of many thousands of dollars in a pure-bred bull may prove profitable. Provided he is given good care and an opportunity to transmit his good qualities through some of the best cows of the breed you may increase the investment until he becomes far more valuable than can be computed in dollars and cents. So much depends upon how the investment is increased that it is difficult to advise how much one is safe in investing in a pure-bred sire. The Holstein-Friesian breeder who paid \$25,000 for Rag Apple Korndyke 8th is increasing his investment through buying many of the best cows of the breed, conditioning them for high records, mating them with his famous bull and selling some of his young bull calves for from \$2,000 to \$20,000. Such returns would not be possible had he used him with only a few good cows and waited for years before increasing his investment in superior blood. The breeder must have thousand-dollar cows before he is safe in investing in thousand dollar bulls and the dairy farmer must have high-grade cows before he is safe in investing in bulls that cost him more than from \$100 to \$200. Provided he has a few pure-bred cows to increase the investment he may be safe in buying a better bull, but it is unwise to invest too much in a bull until some of the cows in the herd begin to make creditable milk and butter-fat records.

**WILL GET SOME ZEPPELINS.**

**T**HE United States will demand its share of the Zeppelins taken from Germany. What shape the demand will take depends on the opinion of Secretary Daniels. It is said that the Zeppelins is the one item of the German vessels of war that would be of any use to the United States, and that the use of the Zeppelin by Great Britain is threatening to put her too far ahead of the United States to permit of any delay in acquiring some of the German vessels.



**No City Child has Greater Advantages— Their Dreams have Come True**

**T**HEY know that the most important crop on every farm is children—and that the best is none too good for them.

So Father, Mother and Grandmother have planned and dreamed of the day when they could have a Colt Lighting and Cooking Plant in their home.

The new Colt plant was installed this morning. As they watch Bess, cuddled up in the arm chair, reading in the flood of rich, soft, white light, sunshine is in their hearts. They envy no one.

**Carbide Lighting *COLT* and Cooking Plant**

is the most efficient and most economical light on the market. A record of nineteen years proves its entire reliability. There is nothing to get out of order. Farmers have used them for over ten years without spending a cent for repairs. It can stand in a corner of the cellar, in the cow

barn or in an out house. It lights the house and barns, and supplies gas for a cooking stove. No other plant for lighting country homes supplies this double service. Write us for the names and addresses of neighbors who prefer it to all other systems.

**J. B. COLT COMPANY, 288 Fourth Avenue, N. Y. City**



**F**IND out now how a Homer Pipeless Furnace will positively keep your house far warmer all winter long at much less cost than with stoves and costly, heat-wasting pipe furnaces.

Gives perfect ventilation—even heat distribution. Burns hard or soft coal, coke, slack, wood, cobs—any fuel.

Easily installed in one day. No tearing up of house. Write us today for prices and full details.

Homer Furnace Company, Homer, Mich. Dept. F-3



**BUY FENCE POSTS** direct from factory. Prices delivered your station. M. M. care of Michigan Farmer.



ADOPTED BY YOUR UNCLE SAM after rigid tests. Ask your dealer to show them to you. JOHNSON IDEAL HALTER CO., Aurora, Ill.

**SEEDS WANTED**

Michigan Grown Winter Vetch, Rye and Vetch, June and Mammoth Clover, Alfalfa, Sweet Clover, Alsike and Field Peas. Known varieties of Garden Peas, Beans and other Garden feeds, if High Germination and 1919 crop.

Send samples for test. The C. E. DePuy Co. Pontiac, Mich.

**SEED WHEAT**

Selections of pure seed of Fultz and Poole varieties for starting high-grade seed crops. We have a limited quantity of very fine seed. Booklet. Samples.

O. C. Shepard Co. Box 62, Medina, O.

**FRUIT SALES** Sell direct to consumers in Minnesota. Individual Sales Service for quality foods. Information free by return mail. D. M. Wigle, Box 347A, Rochester, Minn.

**Unusual Opportunities for Veterinary Surgeons**

MICHIGAN AGRICULTURAL COLLEGE offers complete veterinary course, open to high school graduates in preparation for this work. For particulars write R. P. LYMAN, Dean, East Lansing, Michigan.

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**RED ROCK WHEAT**

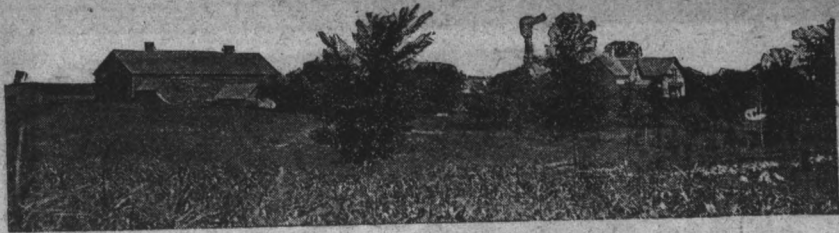
Grown from certified seed; absolutely pure and free from smut, no rye, no foul stuff. In 10 bu. lots, \$3.00; bags extra. Wesley Hile, R. D. 6, Ionia, Citizens phone. Saranac, Mich.

Trained American Fox Hounds Rabbit and Skunk dogs all ages. Send stamp. W. E. LEORY, Holmesville, Ohio.

**Salesmen Wanted**

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.

**The Michigan Farmer**



## Sheep in Cloverland

**B**ECAUSE of the speculators buying tracts of land in the west and homesteaders settling on the once vast fields used entirely for ranges, the sheep and cattle men are compelled to find more favorable locations. For these men, upper Michigan offers splendid opportunities. We are glad that they have heard of us and that many are making preparations to be with us to carry on their vast live stock industry, so very necessary for human consumption.

Not waiting for our western brothers to take the initiative in this phase of the live stock industry, hundreds of small and large farmers and boy clubs have started in the sheep raising business on a small and large scale. Their not being well acquainted with this work, many questions naturally arise which should be answered to help these beginners to be successful in their new and worthy project. And the following is written with this aim in view.

Let us first consider the autumnal season, that being the time when most of the boys' sheep clubs have been organized, with yearling ewes to breed for lambing the following spring. During this period of the season, our country is frequently visited with cold rains and snows, occasionally a mixture of the two. When these storms occur, the ewes should be placed under dry shelter until after the storms have subsided. They may then be turned out to pick their feed from the pasture. Sheep can stand a great deal of cold when dry, but they are subject to colds, pneumonia, etc., if left in cold rains, cold damp draughts and wet snows.

Housing facilities need not be expensive. They may be made of the cheapest sort of material. About all that is necessary is a shed that will keep the sheep dry, both overhead and under foot, and free from draughts, or protected from rain, wind and snow. An open shed facing the south, with doors hinged to the roof which can be lowered only during the most severe weather, will protect sheep and can be constructed at a minimum of expense. It is very essential that the shed be well ventilated and still be free from draughts. To keep sheep in a poorly ventilated, hot shed will cause them to sweat, lose their wool and be subjects of colds, pneumonia, lung fever, and to become in an emaciated condition, frequently dying. The shed should be located so that water will drain away from it and, at the same time, be in the most convenient place for access to the fields. The doors through which the sheep pass should be large enough to prevent crowding for crowding often causes abortion. For the early lambing period, warmer quarters are needed to protect the young lambs from cold. When the lambs are a few days old, they will have strength enough to resist quite severe weather.

### Feeding of Ewes Before Mating.

Where possible, the ewes should be left on a rich growth of pasture until after breeding. However, in this part of the state it is often impossible to practice this method because of heavy snows coming too early in the season. Nor can the ewes in general be bred as early here as farther south. Hence, feeding in the barns is often necessary before breeding. This is where care must be taken to insure a good, strong

crop of lambs. The ewes must be kept in vigorous, healthy and well nourished condition as the hereditary material from the parents is more likely to be active and potent in developing the qualities it conveys when the body of the parent is strong. Other advantages in having the ewes in a healthy condition when mated are a shorter lambing season as more lambs are dropped in a shorter time, lambs dropped are stronger and there are also likely to be a larger number of twin lambs born. The following feeds, all of which can be raised here, constitute a good ration:

Clover hay, two to three pounds daily; rutabagas, two to three pounds daily; free access to salt and water; grain may be added if thought necessary or oat and pea hay make an excellent feed.

### Management of the Ram During the Breeding Season.

The main object in managing the ram during the breeding season is to prevent him from becoming poor through over-use or underfeeding. If a ram gets into a run-down condition, his ability to breed is likely to be suspended. For most successful results, the ram should be kept in a good, robust, vigorous condition with a moderate amount of fatness. As a usual thing, a mature ram will breed about fifty ewes and a ram lamb about twenty-five.

I have found it very practical to handle rams in the following way: Feed oat and pea hay at 8:00 a. m. Turn in with ewes at 9:00 a. m. and leave two hours. At the end of this time, put him back in his own place and allow him to eat all he cares for and at 3:00 p. m. turn him back with the ewes until 4:00 p. m., when he is again separated from the ewes until the following morning. My rams this year have kept up very well on oat and pea hay alone for feed, throughout the breeding season. Four rams, two of which are lambs, were used to breed one hundred and forty-seven ewes. On the station, we have a yearling ram that weighed two hundred and fifteen pounds at the time mating season began and weighed two hundred pounds after breeding over fifty ewes. He was fed entirely on a ration of oat and pea hay.

### HOW TO ORDER ARMY FOOD.

**A**RMY surplus food supplies, placed on the market August 18 through the Postoffice Department, can be purchased by the housewife without leaving her home, according to the plans worked out between the War Department and postal officials.

The food distribution, according to the plans, will work like this:

The price list, when completed, with descriptions of the food for sale, will be put into the hands of the housewives by the postoffice through its 55,000 postmasters and local carriers. With the list will go an order blank.

The housewife who desires some of the army food will fill out the blank and hand it to the carrier, who will turn it over to the postmaster. She will pay the carrier and get a receipt.

The postage, it is believed, will be less than one cent a pound for the food handled that way. The postage will be included in the price of the food.

# MICHIGAN STATE FAIR

## DETROIT

### August 29-September 7

## Wild Life of Michigan

This Second Annual Exposition of native Mammals, Birds, Fish, Forest and Fur Bearing Animals will be one of the outstanding features of the Fair. Not only will it be of exceptional interest to view these members of Michigan's wild life in their native surroundings, but it will prove of exceptional educational value to be able to visualize the inhabitants of the forests, streams and air.

## Mecca of Startling Amusements

### Battle of Chateau Thierry

The outstanding pyrotechnical display of the world. A reproduction of that famous battle with fire works. Returned soldiers will participate each evening.

### Louis Gertson

America's most daring aviator who writes his name in the skies with fire.

### Ruth Law

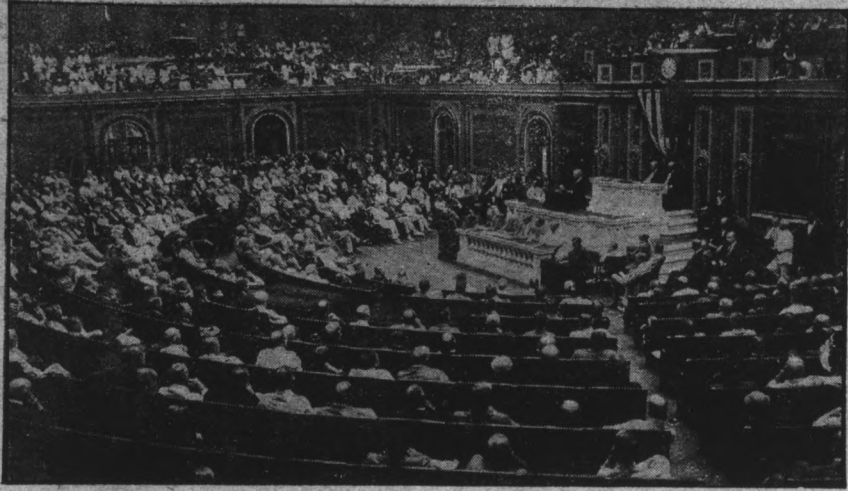
Celebrated Military Aviatrix in competition with Gertson and world's leading auto racers.

Horse Races, Horse Show, Automobile Races, Automobile Show, Auto Polo, Acrobatic Acts, Free Vaudeville, Many Bands, Hawaiian Singers, Dancing Girls, Clowns, Con T. Kennedy's Midway Shows, Dog Show and Innumerable Other Attractions Will Be a Part of this

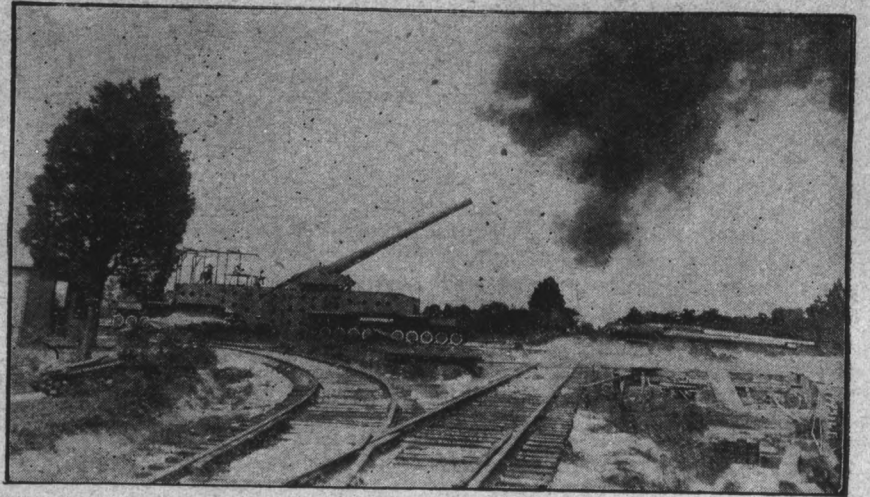
## Seventieth Annual Exposition

### 10 DAYS--10 NIGHTS

# WORLD EVENTS IN PICTURES



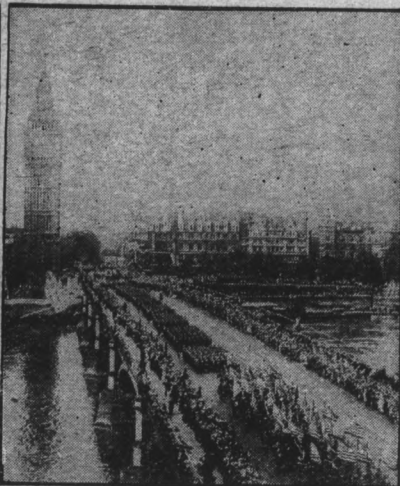
Unusual picture of President Wilson speaking before joint session of both Houses, asking legislation against food profiteering and urging cessation of strikes—note full seats and crowded galleries.



Testing for the first time the new American fourteen-inch naval gun, mounted on specially designed forty-wheel railroad carriage, at the Indian Head, Virginia, proving grounds.



Miss Margaret Wilson, daughter of the President, firing the pistol which started the first event of the Central High School Athletic Meet in Washington.



American troops with their colors passing over Westminster bridge during the tremendous London Victory Parade.



President Wilson presenting the Prize Roosters bought in France by Admiral Knapp for the "Big Four," to the State of Alabama for the Benefit of the Dixie Highway Project.



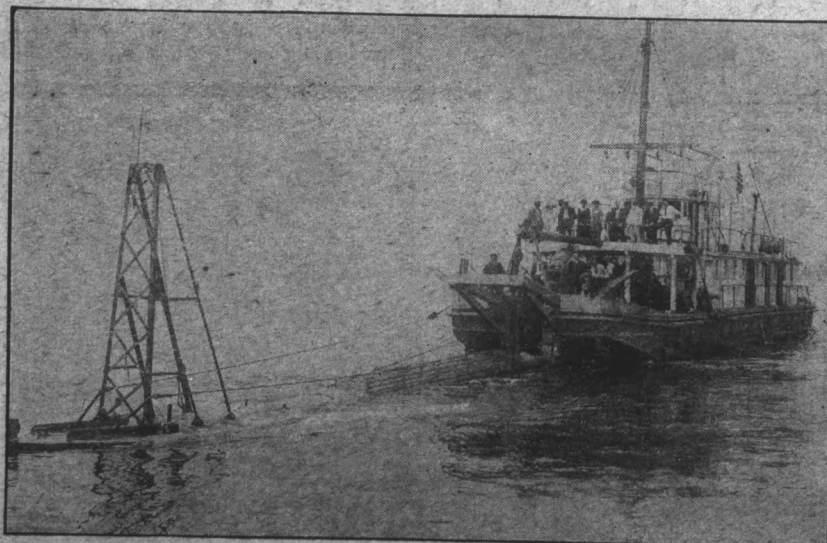
Kitty Ganutt winning second place in the Women's World's Championship Broncho Busting Contest during the "Cheyenne Frontier Days" Roundup at Cheyenne, Wyoming.



Clara Kimball Young in her roadster, holding the silver loving cup awarded her when she was adjudged queen of beauty at the recent Motion Picture Day, at Ascot Speedway, Los Angeles.



Captain Simon Lake (right) and Ruth Byers coming up through tube of Captain Lake's wonderful invention which enabled them to walk freely about the bottom of the ocean without even wetting their clothes.



View of Captain Simon Lake's Submarine Salvage Boat, "Argosy," and Argonaut 3, for searching for sunken boats and treasure—twin-hulled craft with steel cylindrical tube projecting from between hulls—tube, four and a half feet in diameter, is moved about on sea bottom—compressed air keeps water out, enabling persons to walk on bottom without diving costumes.



Brigadier-General G. Neville, who commanded the Fourth Infantry Brigade (Marine Brigade) of the Famous Second Division at Chateau-Thierry, know in many countries as "Follow Me" Neville because of his daring leadership.

# The March of the White Guard

By Sir Gilbert Parker

(Continued from last week).

"January 10: Camp 39.—A bitter day. We are facing three fears now: the fate of those we left behind; his fate; and the going back. We are thirty miles from Manitou Mountain. If he is found, I should not fear at all the return journey; success gives hope. We trust in God."

Another day passes and at night, after a hard march, they camp five miles from Manitou Mountain. And not a sign! But Jaspas Hume knows that there is a faint chance of Varre Lepage being found at this mountain. His iron frame has borne the hardships of this journey well; his valiant heart better. But this night an unaccountable weakness possesses him. Mind and body are on the verge of helplessness and faintness. Jacques seems to understand that, and when he is unhitched from the team of dogs, now dwindled to seven, he goes to his master and leaps upon his breast. It was as if some instinct of sympathy, of prescience, was passing between the man and the dog. Jaspas Hume bent his head down to Jacques for an instant and rubbed his side kindly; then he said, with a tired accent, "It's all right, dog; it's all right!"

Jaspas Hume did not sleep well at first that night, but at length oblivion came. He waked to feel Jacques tugging at his blankets. It was noon. Late Carscallen and Cloud-in-the-Sky were still sleeping—inanimate bundles among the dogs. In an hour they were on their way again, and toward sunset they had reached the foot of Manitou Mountain. Abruptly from the plain rose this mighty mound, blue and white upon a black base. A few straggling pines grew near its foot, defying the calculations of geographers and geologists. A halt was called. Late Carscallen and Cloud-in-the-Sky looked at the chief. His eyes were scanning the mountain closely. Suddenly he paused. Five hundred feet up there is a great round hole in the solid rock, and from this hole there comes a feeble smoke! Jaspas Hume's hand points where his eyes are fixed. The other two see. Cloud-in-the-Sky gives a wild whoop, such a whoop as only an Indian can give, and from the mountain there comes, a moment after, a faint replica of the sound. It is not an echo, for there appears at the mouth of the cave an Indian, who sees them and makes feeble signs for them to come. In a few moments they are at the cave. As Jaspas Hume enters, Cloud-in-the-Sky and the stalwart but emaciated Indian who had beckoned to them speak to each other in the Chinook language, the jargon common to all Indians of the west.

Jaspas Hume saw a form reclining on a great bundle of pine branches and he knew what Rose Lepage had prayed for had come to pass. By the flickering light of a handful of fire he saw Varre Lepage—rather what was left of him—a shadow of energy, a heap of nerveless bones. His eyes were shut, but as Jaspas Hume, with a quiver of memory and sympathy at his heart, stood for an instant and looked at the man whom he had cherished as a friend and found an enemy, the pale lips of Varre Lepage moved and a weak voice said, "Who—there?"

"A friend."

"A friend! Come near me friend!"

Jaspas Hume made a motion to Late Carscallen, who was heating some liquor at the fire, and he came near and stooped and lifted up the sick man's head, and took his hand.

"You have come to save me—to save me!" said the weak voice again. "Yes; I have come to save you." This voice was strong and clear and true.

"I seem to have heard your voice before—somewhere before—I seem to have—" But he had fainted.

Jaspas Hume poured a little liquor down the sick man's throat, and Late Carscallen chaffed the delicate hand—delicate in health, it was like that of a little child now. When breath came again Jaspas Hume whispered to his helper, "Take Cloud-in-the-Sky and get wood; bring fresh branches; clear one of the sleds, and we will start back with him in the early morning."

Late Carscallen, looking at the skeleton-like figure said, "He will never get there."

"Yes," said Jaspas Hume; "he will get there."

"But he is dying."

"He goes with me to Fort Providence."

"Ay, to Providence he goes, but not with you," said Late Carscallen, sadly but doggedly.

Anger flashed in Jaspas Hume's eye, but he said quietly, "I shall take him to his wife; get the wood, Carscallen."

And Jaspas Hume was left alone with the starving Indian, who sat beside the fire eating voraciously, and the sufferer, who now mechanically was taking a little biscuit sopped in brandy. For a few moments thus, and his sunken eyes opened and he looked dazedly at the man bending above him. Suddenly there came into them a look of terror. "You—you—are Jaspas Hume," the voice said in an awed whisper.

"Yes," and the hands of the Sub-factor chafed those of the other.

"But you said you were a—friend, and come to save me."

"I am come to save you."

There was a shiver of the sufferer's body. This discovery would either make him stronger or kill him altogether. Jaspas Hume knew this, and said: "Varre Lepage, the past is past and dead to me; let it be so to you."

There was a pause.

"How—did you know—about me?"

"I was at Fort Providence; there came letters from the Hudson Bay Company, and from your wife, saying that you were making this journey, and were six months behind—"

"My wife, my wife! Rose!"

"Yes, I have a letter for you from her. She is on her way to Canada. We are to take you to her."

"To take me—to her!" He shook his head sadly, but he pressed the letter that Jaspas Hume had just given him to his lips.

"To take you to her, Varre Lepage." "No, I shall never see her again." "I tell you, you shall. You can live if you will. You owe that to her—to me—to God!"

"To her—to you—to God. But I have been true—to none. To win her I wronged you doubly—and wronged her, too; and wronging—both of you, I wronged That Other One. I have been punished. I shall die here."

"You shall go to Fort Providence. Do that in payment of your debt to me, Varre Lepage. I demand that."

In this sinning man there was a latent spark of honor, a sense of justice that might have been developed to great causes, to noble ends, if some strong nature, seeing his weaknesses, had not condoned them, but had appealed to the natural chivalry of an impressionable, vain, and weak character. He struggled to meet the eyes of Jaspas Hume, and doing so he gained confidence and said, "I will try to live. I will do you justice—yet. But, oh, my wife!"

"Your first duty is to eat and drink. We start for Fort Providence tomorrow morning."

The sick man stretched out his hand: "Food! Food!" he said.

In little bits food and drink were given to him, and his strength sensibly increased. The cave was soon aglow with the fire that was kindled by Late Carscallen and Cloud-in-the-Sky. There was little speaking, for the sick man soon fell asleep. Varre Lepage's Indian told Cloud-in-the-Sky the tale of their march—how the other Indian and the dogs died; how his master became ill as they were starting toward Fort Providence from Manitou Mountain in the summer weather; how they turned back and took refuge in this cave; how month by month they had lived on what would hardly keep a rabbit alive; and how at last his master urged him to press on with his papers; but he would not, and stayed until this day, when the last bit of food had been eaten, and the were found!

## CHAPTER V.

THE next morning Varre Lepage was placed upon a sled and they started back, Jacques barking joyfully as he led off, with Cloud-in-the-Sky beside him. There was light in the faces of all, though the light could not be seen by reason of their being muffled so. All day they traveled, scarcely halting, Varre Lepage's Indian being strong again and marching well. Often the corpse-like bundle on the sled was disturbed and biscuits wet in brandy, and bits of preserved venison were given.

That night Jaspas Hume said to Late Carscallen: "I am going to start

at the first light of the morning to get to Gaspé Toujours and Jeff Hyde as soon as possible. Follow as fast as you can. He will be safe if you give him food and drink often. I shall get to the place where we left them about noon; you should reach there at night or early the next morning."

"Hadn't you better take Jacques with you?" said Late Carscallen.

The Sub-factor thought a moment, and then said, "No, he is needed most where he is."

At noon the next day Jaspas Hume looks round upon a billowy plain of sun and ice, but he sees no staff, no signal, no tent, no sign of human life: of Gaspé Toujours or of Jeff Hyde. His strong heart quails. Has he lost his way? He looks at the sun. He is not sure. He consults his compass, but it quivers hesitatingly, and then points downward! For a while wild bewilderment which seizes upon the minds of the strongest, when lost, masters him, in spite of his struggles against it. He moves in a maze of half-blindness, half-delirium. He is lost in it, is swayed by it. He begins to wander about; and there grow upon his senses strange delights and reeling agonies. He hears church bells, he catches at butterflies, he tumbles in new-mown hay, he wanders in a tropic garden. But in the hay a wasp stings him, and the butterfly changes to a curling black snake that strikes at him and glides to a dark-flowing river full of floating ice, and up from the river a white hand is thrust, and it beckons him—beckons him! He shuts his eyes and moves toward it, but a voice stops him, and it says, "Come away! come away!" and two arms fold him round, and as he goes back from the shore he stumbles and falls, and . . . What is this? A yielding mass at his feet! A mass that stirs! He clutches at it, he tears away the snow, he calls aloud—and his voice has a far-away unnatural sound—"Gaspé Toujours! Gaspé Toujours!" Yes, it is Gaspé Toujours! And beside him lies Jeff Hyde, and alive! ay, alive! Thank God!

Jaspas Hume's mind is itself again. It had suffered but for a moment what comes to most men when they recognize first that they are being shadowed by the awful ban of "Lost."

Gaspé Toujours and Jeff Hyde had lain down in the tent the night of the great wind and had gone to sleep at once. The staff had been blown down, the tent had fallen over them, the drift had covered them, and for three days they had slept beneath the snow; never waking.

Jeff Hyde's sight was come again to him. "You've come back for the book," he said, "you couldn't go on without it. You ought to have taken it yesterday," and he drew it from his bosom.

"No, Jeff, I've not come back for that; and I did not leave you yesterday: it is three days and more since we parted. The book has brought us luck, and the best! We have found him; and they'll be here tonight with him. I came on ahead to see how you fared."

In that frost-bitten world Jeff Hyde uncovered his head for a moment. "Gaspé Toujours is a Papist," he said; "but he read me some of that bok the day you left, and one thing we went to sleep on: it was that about 'Lightenin' the darkness, and defendin' us from all the perils and dangers of this night.'" Here Gaspé Toujours made the sign of the cross. Jeff Hyde continued half apologetically for his comrade, "It comes natural to Gaspé Toujours—I guess it always does to Papists. But I never had any trainin' that



Micki Mori, Conceded the Fairest Flower Ever Sent to this County, is First and Only Japanese Girl to Learn to Fly Here. She is Studying at Atlantic City with Earl L. Ovington as Her Instructor.

way, and I had to turn the thing over and over, and I fell asleep on it. And when I wake up three days after, here's my eyes as fresh as daisies, and you back, Captain, and the thing done that we come to do."

He put the book into the hands of Jaspar Hume, and Gaspe Toujours at that moment said, "See!" And far off against the eastern horizon, appeared a group of moving figures!

That night the broken segments of the White Guard were reunited, and Varre Lepage slept by the side of Jaspar Hume.

CHAPTER VI.

**T**O conquer is to gain courage and unusual powers of endurance. Napoleon might have marched back from Moscow with undecimated legions safely enough, if the heart of those legions had not been crushed. The White Guard, with their faces turned homeward and the man they had sought for in their care, seemed to have acquired new strength. All through days of dreadful cold, through nights of appalling fierceness, through storm upon the plains that made for them paralyzing coverlets, they marched. And if Varre Lepage did not grow stronger, life at least was kept in him and he had once more the desire to live.

There was but little speech among them, but once in a while Gaspe Toujours sang snatches of the songs of the voyagers of the great rivers; and the hearts of all were strong. Between Jacques and his master there was occasional demonstration. And Jacques seemed to know that a load was being lifted from the heart of Jaspar Hume, and Jaspar Hume, on the twentieth day homeward, said with his hand on the dog's head, "It had to be done, Jacques; even a dog could see that!"

And so it was "all right" for the White Guard. One day when the sun was warmer than usual over Fort Providence, and just sixty-five days since that cheer had gone up from apprehensive hearts for brave men going out into the Barren Grounds, Sergeant Gosse, who every day and of late many times a day, had swept the northeast with a field-glass, rushed into the Chief Factor's office, and with a broken voice, cried, "The White Guard! The White Guard!" and pointed toward the northeast. And then he leaned his arm and head against the wall and sobbed. And the old Factor rose from his chair tremblingly, and said "Thank God," and went hurriedly into the square. But he did not go steadily—the joyous news had shaken him, sturdy old pioneer as he was. As he passes out one can see that a fringe of white has grown about his temples in the last two months. The people of the Fort had said, they had never seen him so irascible, yet so gentle; so uneasy, yet so reserved, so stern about the mouth, yet so kind about the eyes as he had been since Jaspar Hume had gone with his brave companions on this desperate errand. (Concluded next week).



KATY DIDN'T.

BY MRS. L. M. THORNTON.  
We were riding down the valley,  
And the moon was shining bright,  
We were sitting close together  
'Twas a perfect autumn night.  
And the Katy-Dids were calling  
Clear above the engine's purr,  
I could hear the man I wondered  
Wondered what they said to her.

We were riding down the valley  
And I pleaded for a kiss.  
'Twas a night to tempt a moral  
To a taste of heavenly bliss.  
And the Katy-Dids were calling  
But she shook her pretty head;  
"Katy didn't kiss a fellow  
Katy didn't dare, she said."

City Homes, Farm Homes, Churches, Stores, Factories, Business Buildings — the CALORIC heats them all!



**M**ORE than 76,000 buildings, of every type of construction, are now being heated by the CALORIC.

Some are new buildings. Some are old. Some have one room and some have eighteen. But the CALORIC heats them all—uniformly, thoroughly and at very small cost.

There is nothing mysterious about the CALORIC method of heating. It is perfectly simple and thoroughly practical. And because there is no need of remodeling old buildings, or of costly piping

arrangements for new, the CALORIC with its one register, is the most economical of all installations.

All of its heat rises straight up from the firepot with no waste radiation into basement or walls. Thus the CALORIC saves from 35% to 50% of the fuel that other heating systems require.

So now thousands who never before have known what winter-time comfort was, can have this better heating. They can enjoy the comfort of even, healthful temperatures and of moist, balmy air in every room.



The Original Patented Pipeless Furnace

Perfect Heating Guaranteed

**T**HE CALORIC is guaranteed to heat your building to an average temperature of 70 degrees in the coldest weather. Also to give every advantage in fuel economy, simplicity and high-grade construction that you could possibly ask for.

The Monitor Stove Company of Cincinnati, backed by one hundred years of heating experience, gives this guarantee with every CALORIC installed. If your CALORIC does not absolutely fulfill these claims, it is taken out, every trace of the installation removed, and every cent of your money refunded.

The Monitor Stove Co. "The Monitor Family" In Business One Hundred Years

NATIONAL CALORIC WEEK Aug. 23rd to Aug. 30th inclusive Special Exhibits at all CALORIC Dealers

Pioneers of Pipeless Heating



One Hundred CALORICS Purchased by BETHLEHEM STEEL COMPANY Sparrow's Point, Md

Get The Facts Today

**T**HERE is a CALORIC dealer in almost every town. See yours at once, or write us direct for detailed information. For your protection, remember that the CALORIC is the Original Patented Pipeless Furnace and that its most important features are patented. No other furnace has them.

When such concerns as the Bethlehem Steel Co., Endicott-Johnson Shoe Co.—and dozens more with unlimited money and facilities for making the most exacting investigations—decide on the CALORIC, the conclusion is obvious:— This Is The Heating System For Your Home—For You!

See The CALORIC at State and County Fairs

110 Woodrow St., Cincinnati, O.

BRANCH HOME: 625 E. Michigan Ave., Lansing, Mich.

CALORIC Warehouses In Principal Cities

CALORIC Dealers Everywhere

5000 Mile Guarantee Meyer Tire 20% Off List



Non-skid	List	20% off
30x3 1/2	\$17.95	\$14.36
32x3 1/2	21.55	17.24
31x4	26.55	21.24
32x4	27.35	21.88
33x4	28.35	22.68
34x4	29.35	23.48

**HERE IS A REAL TIRE—** a hand made, guaranteed product—offered at an exceptionally low price. 5000 Miles is the guarantee—not the limit of the mileage that Meyer Tires give.

**Letters From Users** tell us that these tires run 10,000 and 12,000 miles over the rough roads of Michigan without causing any trouble—12,000 miles and still going, is the reputation of the Meyer Tire.

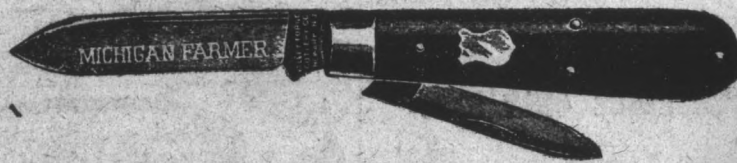
Special Offer

Four non-skid 30x3 1/2 Meyer Tires for \$52.00. Buy a complete set and make all your automobile trips a joy. Order four tires and save \$1.70. Sent C. O. D. or 2% discount if check accompanies order. Tires, Tubes, Retainers. Write for price lists and special dealer proposition. Buy your tires direct.

MEYER TIRE CO.

226 E. Jefferson Ave. Detroit, Mich.

Our Quality Knife



Made by the famous Valley Forge Cutlery Company. Two blades made of best razor steel. Ebony handle. Brass lined and well finished throughout. Guaranteed to give satisfaction. High-grade every way.

These knives were bought a pre-war prices, otherwise we could not make the attractive offers below. They are extra good value.

Sent prepaid for two yearly subscriptions to the Michigan Farmer at \$1.00 each, or for one subscription and 50 cents additional.

Cash for Your Spare Time

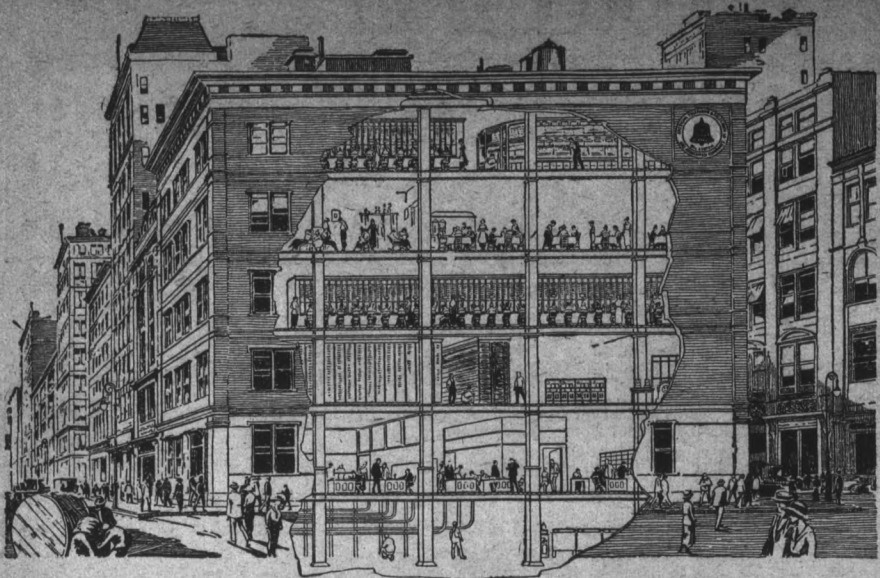
Put your spare time to pleasant and profitable use by cooperating with us in the securing of Michigan Farmer subscriptions.

A good way to get money for Thrift Stamps, Liberty Bonds, or to help in the high cost of living. From two to three dollars a week can be earned with little effort.

Details furnished upon request.

The Michigan Farmer,

Detroit, Mich.



## The Great Task of Construction

With the coming of peace the Bell System faced an enormous construction program. Conditions arising from war resulted in the wiping out of the reserve equipment normally maintained, and necessary to give prompt connection to new subscribers. The release of industry and accumulated growth of population now makes telephone demands almost overwhelming.

Telephone construction, including buildings, switchboards, conduits, cables and toll lines, must, from its inherent nature, be undertaken in large units. A metropolitan switchboard, with its tens of thousands of parts, may require from two to three years to construct and install.

Only great extension can meet the

present excess burden of traffic and provide for future requirements. Extension which cares for immediate demand, only, is uneconomical and calls for continuous work of such a character as to be frequently detrimental to the service.

During the war the Bell System devoted all its margin to the needs of the Government. The great task of getting back to normal pre-war excellence of operation requires the reestablishment of an economic operating margin capable of taking care of a larger growth than has ever before confronted the Bell System.

Construction is being pushed to the limit of men and materials; while every effort is being made to provide the best, present service.

## Disabled Soldier Finds Work Great Fun

A STOOP shouldered man leaning on crutches came into the offices of the Federal Board of Vocational Education one morning, and looking around the room asked if this was the place where the soldiers who had been hurt in the war could find something to do? The agent of the board asked him to sit down, and told him the plan that the government had for helping the handicapped men of the army, navy and marine who had been disabled in the service so that they might keep on with an active life.

"I reckon it was in service all right," the stoop shouldered one said, laying his crutches by the chair, "at Belleau Wood. Lord, what a day." He let his hands drop listlessly between his knees, and turning his eyes to the adviser, he said, "Well, how are you going to help me? I have lost my leg, and I have about two dollars in my pocket, and nowhere to get more. I never had a decent job in my life. I don't know how to do anything special, and I don't care what it is you give me to do, just so it's something." He paused a minute, and smiled a little, "I got a kid now."

The adviser talked to him for a bit, and tried to discover just what this man could do. He had held odd jobs here and there, but none led to anything definite. He wasn't any more interested in auto mechanics than in street sweeping, or in gardening than clerking. He sat there listlessly looking at his hands, and left it to the ad-

viser to decide. Every now and then he slowly turned a strange ring he had on his finger.

The adviser felt rather dashed. He couldn't get a lead from this man's silence, and to get his confidence he asked to see the ring. The man took it off and handed it to him. His face became suddenly animated. "I made that," he said. "Hammered it out of silver myself, and engraved those figures on the outside. Nothing but some playin' of mine," he added depreciatingly. The adviser looked at the ring carefully. It was well done, with a certain look about the engraving that gave him an idea.

"How would you like to learn engraving, and get a good position in it?" he asked.

"Doin' this? Say, this ain't work. It's just play, and nobody pays you for havin' a good time, do they?"

"Let's have a try at it," suggested the adviser, "and see what happens."

The Federal Board sent the man to learn engraving, and in a few months he was the best of all the workers in the jewelry store where he was employed.

That ring was the key that opened the door of success to him. He has waked up, and is enthusiastic about his work, only, he always says "It's not work. This is fun." Well, your work always is when you have found the right vocation. That's what the Federal Board is doing for the disabled soldiers.

## Can See Home-Made Camping Outfit

FROM time to time inquiries have come to the Michigan Farmer office, also to J. H. Brown, of Battle Creek, regarding the Brown touring car equipment for camping along the way when traveling across country.

Mr. Brown has arranged to attend the State Fair and will be in the service of the Michigan Farmer, taking pictures of various and special agricultural features, especially of the State Fair school for boys, the boys' and girls' agricultural clubs, live stock judging, etc. These pictures and stories connected therewith, will appear in this paper from time to time.

The Brown family will drive to Detroit August 27, and camp in the Boys State Fair School section, the same as they did two years ago. They will utilize their complete equipment, and thus it will give readers of this paper who attend the fair, an opportunity to see what comfort and conveniences

can be had while touring. Much of this equipment is home-made and was illustrated and described in this paper last spring. Automobile periodicals claim this is the finest and most complete touring outfit in the whole country. And the fact that the owner invented and made the most of it himself, is also of interest.

Readers of the Michigan Farmer in attendance at the fair will be given full opportunity to inspect the car and camp at any time. The location will be on the north side of the Boys' Fair School Camp.

There is a constantly increasing interest in camping when taking long tours across the country. It costs less and there is much enjoyment in stopping at night in some farmer's yard, setting up the tent and beds, and cooking a supper of meat, potatoes, and making coffee. Hundreds of farmers are doing this stunt every day now.



Perhaps You Will Want to Make One Like It.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY AND ASSOCIATED COMPANIES

One Policy One System Universal Service

### A Special Clubbing Bargain

No. 7.

Michigan Farmer, 1 yr., wk. .... \$1.00  
 Woman's World, mo. .... .50  
 Boys' World or Girls' Comp., mo. .50

Regular price, one year. .... \$2.00

**OUR PRICE ONLY \$1.60**

No. 8.

Michigan Farmer, 1 yr., wk. .... \$1.00  
 Breeders' Gazette, wk. .... 1.50  
 Woman's World, mo. .... .50  
 American Boy, mo. .... 2.00

Regular price. .... \$5.00

**OUR PRICE ONLY \$3.90**

No. 9.

Michigan Farmer, 1 yr., wk. .... \$1.00  
 Green's Fruit Grower, mo. .... .50  
 American Bee Journal, mo. .... 1.00

Regular price, one year. .... \$2.50

**OUR PRICE ONLY \$2.00**

No. 10.

Michigan Farmer, 1 yr., wk. .... \$1.00  
 Youth's Companion, wk. .... 2.50  
 McCall's Magazine, mo. .... 1.00  
 Poultry Success, mo. .... .50

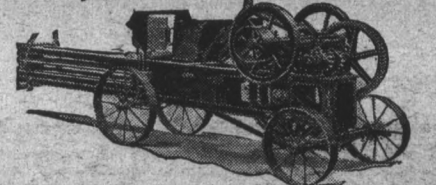
Regular price, one year. .... \$5.00

**OUR PRICE ONLY \$3.90**

### WORTH A BIG FARM

Bale your own and neighbors' hay; 100 days work earns \$1000 to \$2000 a season with the

**A Press for Every Purpose LIGHTNING LINE**



Power Press or Teactor Baler, Junior Belt, Juniors with extension frames, combined press and engine, horse power press, 1 horse baler to heaviest two horse press. The right kind of a press for your needs. Presses bought from us 20 years ago still in use. Send today for complete catalog or write us your needs and we will advise you size of press needed for your work.

Department 29  
**K. C. HAY PRESS CO. KANSAS CITY, MO.**

**CHEAPEST-WAY TO PULL STUMPS**

**TRY IT 30 DAYS FREE!**  
 If satisfied after trial keep puller. If not pleased, return at our expense. You don't risk a penny. Four easy ways to pay!

**Kirstin ONE-MAN Stump Puller**

Weights less, costs less—yet has greater speed, power, strength. Lasts longer! 3-year guarantee against breakage. One man alone pulls stubborn stumps—Quick!—Cheap!—Easy!—due to wonderful leverage principle. One man and Horse Power models. Shipment from nearest distributing point saves time and freight. Write for FREE BOOK and Special Agent's Proposition—today!

**A. J. KIRSTIN COMPANY**  
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Quick Shipment from  
 Escanaba, Mich.  
 Atlanta, Ga.  
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**GET-A-WITTE**

At Reduced Price

Buy on your own terms. Save \$15 to \$200. Catalog FREE.

**WITTE ENGINE WORKS**  
 2150 Oakland Ave., Kansas City, Mo.  
 2150 Empire Bldg., Pittsburgh, Pa.

News of the Week

Wednesday, August 13.

A BILL introduced in congress provides a five-year jail penalty for food profiteering, and calls for United States control over food, fuel and clothing.—General Denikine's troops win further victories over the Reds in Russia; 12,000 prisoners are taken on the southern front. Lenine loses control in Petrograd.—Senator Lodge assails League of Nations terms and calls pact peril to peace of the world.—Final casualty reports from United States forces in the war were 49,498 deaths, 205,690 wounded and 5,480 prisoners.—The actors' strike which closed several large theaters in New York has reached Chicago.—Race riot jury in Chicago holds thirty-six negroes and four whites in connection with the recent Chicago riots.

Thursday, August 14.

ILLINOIS troops are sent to Peoria where rioting broke out yesterday as a result of a clash between the strikers of the Keystone Wire & Steel Company, and deputy sheriffs.—Hidden stores of food are found in southern cities. Palmer asks \$1,200,000 to extend drive. The first dealer to be convicted of profiteering by the United States is given a \$500 fine.—Six Bolshevik battalions are destroyed in Anglo-Russian offensive; more than 1,000 prisoners, twelve field guns and several machine guns are captured.—United States army transport Sheridan is reported adrift 1,700 miles out from San Francisco.

Friday, August 15.

FORD jury debates ten hours and awards Ford six cents damages from the Chicago Tribune.—President Wilson will discuss League of Nations with the senate foreign committee on Tuesday morning.—Food raids continue and large quantities of butter, eggs and coffee are found in storage.—Noted resort hotel at Put-in-Bay was destroyed by fire last night.—Eight women and children are killed as engine crashes into trolley car at Parkersburg, W. Va.—United States note warns Mexico that unless outrages are soon ended we may change our policy regarding Mexico.

Saturday, August 16.

THE German government has rejected the demand of the allies for the recall of General Von Der Goltz, commander-in-chief of German forces in the Baltic provinces.—Director General of Railroads Hines denies shortage of coal cars.—Eight million eggs are seized by United States officials in Detroit, and 200,000 pounds of sugar are found in Canton, Ohio. Forty warrants are issued and more are due soon, it is stated.—President vetoes daylight measure; says the change aids efficiency.—A change in the present immigration law is proposed by Senator Dillingham, of Vermont, which will limit the number of foreigners to be admitted to the United States.

Sunday, August 17.

A STREET car strike is called in New York City and 14,000 men have been ordered to quit. This will mean the tying up of all subway and elevated service.—Detroit police raid four drug stores and seize 140 gallons of intoxicants.—It is declared that the United States Navy is now next to the best in the world and present building plans will make it equal to that of Great Britain.—Senator Townsend of Michigan, urges more economy, both by the government and by individuals, as a means of cutting the high costs.

Monday, August 18.

TWO United States fliers are seized by Mexican bandits who threaten to kill them unless \$15,000 in gold is paid for their ransom.—Locomotive engine men demand big pay boost in United States and Canada.—New York street car strike ties up traffic in that city.—Three die and two are hurt as auto turns turtle after crashing into tree near Trenton, Mich.—Official investigation of food prices starts in Detroit today.—Attorney General Groesbeck will test Michigan's new rail rate act.

Tuesday, August 19.

PROPRIETORS of eating houses are called by grand jury in Detroit food cost investigation.—Attorney general in New York seeks to create a law to put profiteers in jail.—Thomas Millard tells senate that the United States and Japan war is sure to come.—Bandits secure \$3,000 in a daylight holdup in Detroit; a Standard Oil collector is the victim.—New York street car strike is ended; the men are to get a twenty-five per cent increase in pay.—\$15,000 in gold is sent to bandits in Mexico as ransom to free aviators Davis and Peterson, held as prisoners.

Let 100 of Michigan's Best Wheat Growers tell how they made their Banner Yield!



THAT information rightly used will put into your pocket the money from ten or fifteen more bushels per acre.

It will be the greatest help to wheat raising yet made available, for it is a record of how it has been done—the actual experience of a hundred men who did it!

You want this information—and it will be yours if you will only ask for it.

See for Yourself

At the State Fair samples of the wheat these men raised, with the actual record per acre, will be displayed for your information.

Gathering these experiences and making them available for you is a part of the service we are offering the farmers of this State. We are getting together the best possible information from the leading wheat growers of the State and sending it on to you that you may make your fields pay you better.

Don't fail to see the exhibit at the Federal Booth of the Michigan State Fair. You will learn something that will pay you for your trip to Detroit over and over again when you put it into practice.

Get this Information

Write us now so we will know how many to print, because the book will be sent first to those who send for it. Don't delay.

Remember, too, our thirty-five years experience and our big factories at Louisville, Ky., Columbus, O., and Nashville, Tenn., are at your service.

Federal Chemical Company

Incorporated

Columbus, Ohio



PREMO Film Packs Developed.

An entire pack, 12 exposures, size 2 1/4 x 3 1/4, 25c; 2 1/2 x 4 1/4, 30c; 4 x 5, 35c. Let our careful, experienced workmen develop your next Film Pack. We also make Velox prints, of course.

SWEET, WALLACH & CO., INC. (Eastman Kodak Company) 133 North Wabash Avenue, CHICAGO, ILL.

Attention Farmers SAMP'S MANURE LOADERS

Will be on exhibition at the Michigan State Fair. Come and see this great time and labor saving machine. A machine that is practical and guaranteed in every way. And the price is reasonable. For further information write, the

Samp Manufacturing Co. 766-768 Clay Ave., Detroit, Mich.

A Premo Jr. Camera



The PREMO JR. MODEL B is a well-made, substantial, reliable camera in every respect. This camera has to stand the usual rigid tests which are applied to all cameras made by The Eastman Kodak Co. It loads and unloads in daylight with the Premo Film Pack of 12 exposures. It makes pictures 2 1/4 x 3 1/4 inches in size and the negatives are of such quality that excellent enlargements can be made from them.

The instrument is fitted with an automatic shutter, which works for both time and "snap shot" exposures, and the best grade of single achromatic lens that can be obtained. It has two finders, one for vertical, the other for horizontal pictures,—in fact, it is as well equipped a camera as could be wished for in the box type. It will produce first-class results in all ordinary amateur photographic work, such as snapshots in good light, time exposures, home portraits, landscape and street photography, and the like. This camera is unusually simple to load and operate. A complete book of instructions is included with each one, and even a schoolboy who never had a camera in his hands before, can make good pictures with the Model B Premo Jr. within half an hour after getting it. Sent charges prepaid for 3 Subscriptions, or for One Subscription and \$1.25 additional.

THE MICHIGAN FARMER, DETROIT, MICH.

# From Farm Boy to General

By J. H. Brown

## Buy Rosen Rye

Developed and Grown in Michigan. But remember

## Rye Cross Fertilizes

So Get Pure Rosen Rye also

## Red Rock Wheat

Inspected and Registered by the Michigan Crop Improvement Association

Demand the Ass'n Tag

Ask your county agent. If he can't help you get inspected seed, write for list of growers, quoting prices on bushels or carlots, to the Ass'n Sec'y

J. W. NICOLSON,  
East Lansing, Mich.

JUST fifty-eight years ago a farmer boy near Galesburg walked out of his father's log cabin and enlisted in the army.

"That's nothing," you may remark, but it afterward happened that this boy was the only farmer in the state of Michigan who ever became a "General" in the United States army; at least, up to the Great War just closed.

William Rufus Shafter was born in 1835 in the log cabin, shown herewith, and lived the life of the ordinary farmer boy. Later on he attended school in the village of Galesburg and played with the other boys in the square around the old town pump.

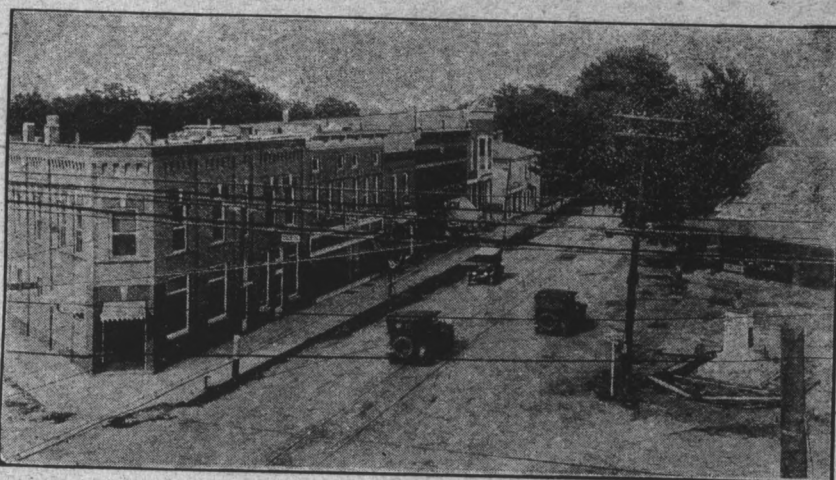
The Shafter farm is about half a mile west of the town and the old log cabin is still standing in a fair state of preservation. The writer took this picture some time ago and inspected the structure. With some repairs it could be turned into as good a home as it was when General Shafter lived there with his parents and helped do chores every night and morning and

After William became of age he taught school for a spell. And in one school in Athens one of his girl pupils must have cast a spell over him that stuck even closer than a brother. And so it came to pass that William Rufus

in order to use in this week's issue of the Michigan Farmer, to show the changes of a half century. We spent some time finding the exact elevated position the old-time photographer must have selected—that was on the



Business Street of Galesburg as it Appeared in 1861.



This View was Taken from the Same Point Fifty-eight Years Later.

roof of the oldest block in town, a three-story brick structure.

We took this picture and the one of the log cabin and new Shafter memorial monument, and are writing this story for the boys who live on farms and read this paper. Just look both pictures over carefully and note the changes and improvements.

When William Shafter trudged to the village school each day from his father's log cabin he saw things just as you see them in the picture. No trees but young ones, no sidewalks, street lights, telephone wires—the boys of those days took great pride in that old town pump, especially in hot weather. The water was cold and tasted "bully," meaning that it could not be beat.

And today, August 22, 1919, just fifty-eight years after the day William Rufus Shafter enlisted to fight for his country, they are dedicating this fine new bust memorial to his memory. And it stands right on the spot where the old town pump stood so many years.

Michigan Farmer boys know that General Shafter was the big man at the head of the United States army during the Spanish war. For nearly a half-century he wore the uniform and fought in many battles and skirmishes. He was called a good Indian fighter, and endured the hardships in the wild west as no one of us can fully understand these days.

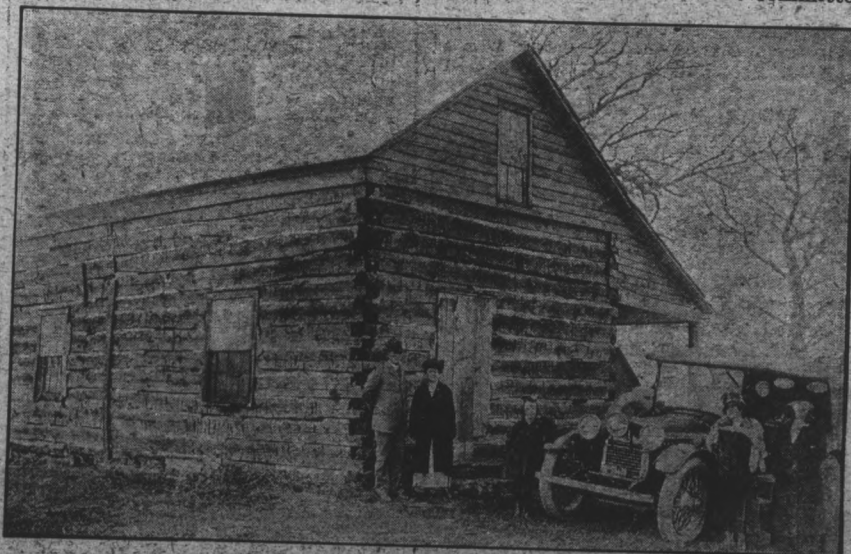
The Michigan legislature appropriated the sum of five thousand dollars three years ago to erect a monument to General Shafter in his home town. The war prevented the early completion of the heroic bronze bust and its erection until recently. M. A. Douglas, a leading merchant of Galesburg, is the chairman of the monument committee,

married this girl. To state it briefly, they lived many years in various parts of the country as a happy couple should. Both are now dead and buried in the Presidio military cemetery in San Francisco.

The first picture shows the center of the village of Galesburg as it looked at the time Shafter enlisted to fight in the Civil War. The exact date was August 22, 1861. At that time there were, of course, no modern improvements in that village. The town pump was a valuable asset to both man and beast; and so it was well cared for. Posts and railing were set up to prevent some farmer or lumberman driving into and over it some dark night.

We found and preserved that old picture that we might place it in the county and state historical records. Recently we made a negative from it, and from that the picture shown herewith.

Just compare these two pictures—the last one we took a few days ago



The Log House in which General Shafter was Born.

## Bale more tons per day the Sandwich Way!

Big Profits This Year  
Big crops plus high prices and unprecedented demand bring tremendous profit opportunity for balers.  
Cash in to the limit by getting a Sandwich outfit. Write.

### Motor Power SANDWICH Hay Presses

All solid steel; can't wear out or break down. Supply own motor power. Gas or kerosene fuel. Hopper cooled; magneto; friction clutch on press. Wonderful improvements bring amazing efficiency. Handles hay, alfalfa, or straw. Write for new book, "Tons Told," guarantee and full details FREE. Address: SANDWICH MFG. CO., Sandwich, Illinois 39 Wood St.



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

assisted his father in the fields in the same kind of a "good old summer time" they had in those days.

## This Drink Doesn't Change Its Price

its quality doesn't vary, and it doesn't start a headache.

## The Original POSTUM CEREAL

is pure and drug-free. It will agree with you, and its rich, robust flavor makes it a big favorite.

Postum is a real part of any meal for old and young.

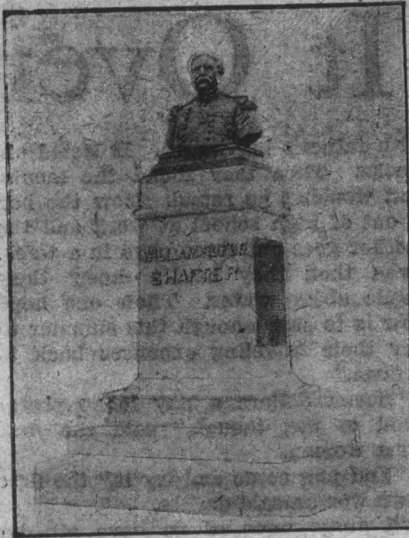
"There's a Reason"



and is now delighted to see the fine memorial set up complete and dedicated to the only farmer boy in Michigan who ever became a "General" in the United States army.

In the old picture, in the rear of the right side, is seen the corner of Hank Bennett's old tavern. It was old even then. It still stands in the same location, but it has been remodeled into a modern automobile garage.

In the old days of 1830 to the time of the Civil War this tavern of Hank Bennett's was a landmark on the "Old Territorial Road," surveyed from Detroit to Chicago. Many of the noted



William Rufus Shaffer, the Farmer Boy who Became a General.

men of the United States stopped at Hank Bennett's to eat dinner or stay over night. Little did a single one of those big men ever dream that old tavern would act as host to an outlandish smelly thing that would scoot across the country faster than the steam cars of those days.

**"By the Way"**

**POOR DAD.**

"Pa, does ink come from the Black Sea?"

A moment later: "Pa, was Joan of Arc Noah's wife?"

**APPROPRIATE.**

"Ben, I'm really surprised at you, putting out your tongue at people."

"It was all right, Mother; it was only the doctor going past."

**SHE PROBABLY HAD.**

It was the first time that the polite little girl had been on a visit alone, and papa had carefully instructed her as to how she should behave.

"Now," he said, "if they ask you to dine with them, you must say: 'No, thank you, I have already dined.'"

It turned out just as papa had anticipated.

"Come, Marjorie," her little friend's father had said; "you must stay and have a bite with us."

"No, thank you," said the small miss with dignity; "I have already bitten."

**WHEN THE SONS SET.**

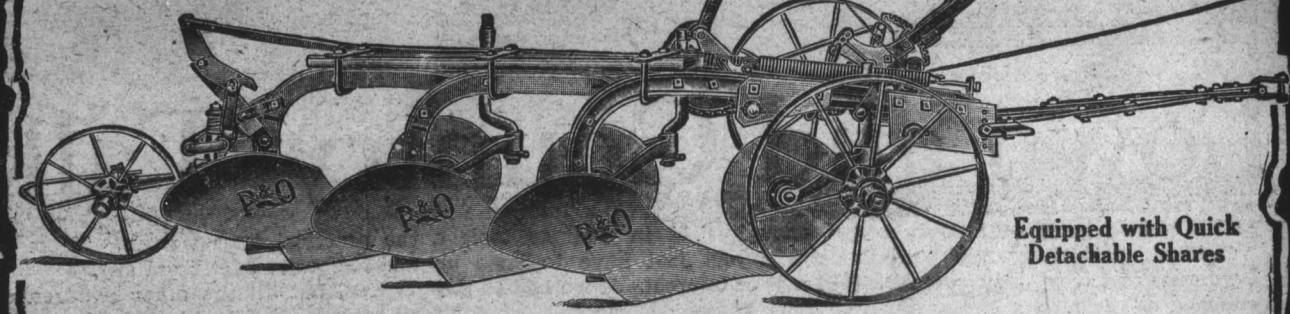
"Where were you boys when I called for you to help me an hour ago?" asked Farmer Jones at the supper table. "I was in the barn settin' a hen," said one. "And I was in the loft settin' a saw," answered another. "I was in Grandma's room settin' the clock," came from the third boy. "And I was up in the pantry settin' a trap," said the fourth.

"You're a fine set!" remarked the farmer. "And where were you?" he asked, turning to the youngest. "I was on the doorstep settin' still!" was the reply.

**P&O Little Genius**

**Power Lift Tractor Plow**

International Tractor  
P&O Tractor Plow  
An unexcelled combination



Equipped with Quick Detachable Shares

THE recent acquisition by the International Harvester Company of the old established plow factory of the Parlin & Orendorff Company at Canton, Illinois, enables the International Harvester Company dealer to supply a complete tractor outfit made by one company. The famous P&O line of plows is now being made by the International Harvester Company. Back of this announcement is the fact that the best known tractor—the Titan 10-20 at its new \$1,000 price, and the most famous of all tractor plows, the P&O Little Genius, will in the future go hand in hand.

The P&O Little Genius Power Lift Tractor Plow has a matchless field record. It is the favorite at all Tractor Plowing demonstrations. Ask any tractor operator which plow he prefers to pull, and if he is free to express his honest opinion he will almost invariably say "P&O".

Sizes: Two and three furrow, with 12 or 14-inch bottoms, and four furrow, with 14-inch bottoms. This gives a range of widths as follows: 24, 28, 36, 42 or 56 inches, to suit all sizes of tractors.

Mechanically it has more to commend it than any similar type of plow made, much more than can be even mentioned in any ordinary advertisement. To know it you must see it. Ask the International dealer about it, or write us for a descriptive folder. Ask the dealer for a P&O catalogue.

**INTERNATIONAL HARVESTER COMPANY**

OF AMERICA INC.

USA

CHICAGO



**Send Your Name No Money**

**Delivery Free**

Just send your name, address and size and we will send this skirt to you. You don't pay one penny until the skirt is delivered at your door by the postman. This is a wonderful opportunity to get a \$7.00 skirt for \$4.98. Our price is an amazing bargain. Compare it with others and see.

**New SATIN SKIRT**

This fashionable skirt is made of a new satin which is strong and durable and will give an abundance of satisfactory wear. The skirt has loose belt beneath which skirt is gathered, cut full and roomy. Two large pockets are fashionably designed with loose flaps, trimmed with gathered ruching. Order on approval. If you don't like it to return it at our expense. The trial will cost you nothing. Color: Black only. Sizes: 22 to 36 waist measure—36 to 42 length.

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will require 4 1/4 yards of 36-inch material. Price 10 cents.

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## Woman's Interests



# Town and Country Talk It Over

THEY were talking over their individual problems, two farm women and two city women. The common one of help had been settled, none of them could get help for love or money. It was agreed that the town women had rather the best of it with gas, electricity, and running water, though one country woman had running water and the other had acetylene lights. How much one should save out of the yearly income and how to do it at present prices for everything under the sun, was brought up.

"I declare, it seems to me as though we can't save a cent," sighed one town woman.

"I guess if my husband was making seven dollars a day as yours is I could save without any trouble," snapped one of the women from the farm.

"You just come in any try it. Just try buying every single thing you put into your mouth and paying \$65 a month rent, and see how much you'll save," flung back the town woman.

"My husband only gets \$4.00 a day and you can imagine we don't save to speak of," interjected the second city woman.

"I should think you'd be in the poor house if Mary can't only exist on seven," the farm woman was sarcastic.

"I guess we would if we hadn't started paying for a home eight years ago," admitted the woman. "We've

got enough paid in now so took a mortgage and just have to keep up \$150 a year interest. If we had to pay the rent Mary does we just wouldn't eat, that's all."

"How much does it cost you for groceries and meat?" The country woman hitherto silent was looking for light.

"My grocery bill is never less than \$60 a month," said the first woman, "that means meat only on Sundays. Often it's more, but say it's just \$60. That with the rent is \$125 a month just for what you eat and a roof over your head. But that doesn't include milk. There's three quarts a day at sixteen cents a quart, and if I get ice cream that's extra."

The statistical farm woman had been figuring. "Seven dollars a day for twenty-six working days is \$182 a month," she announced. "That leaves you \$57 for everything else, clothes, light, fuel, doctors, books, church, recreation and saving for the children's education."

"And if you'd see the way they wear out shoes on those concrete walks." Both city women fetched a sigh. "It's a pair of new shoes or soles every week."

"And clothes," Mary added to the discussion. "You just have to dress the children right for school."

"Let them go barefooted," suggested

the practical farm woman. "Mine do and it doesn't hurt them any."

"Yes, but all the other children do where you live," objected Mary. "If mine went to school barefooted the rest of the children would make life miserable for them."

"Sixty-five dollars a month for just what you have to eat," the second farm woman was still doing mental arithmetic. "You know I don't say it to criticize, but you don't have near as much as we do."

"Yes, and it doesn't cost you a cent!" Both town women exclaimed in a breath.

"O, doesn't it?" The farm woman was ready with her cost statistics. "You just buy the feed for those chickens that don't cost me a cent when I kill one and get up at four o'clock to dig in a garden or pick berries, and you'll think you're paying something for what you eat."

"But you can get the stuff to eat, though," said the town woman with the smallest wage. "If you lived here and had to pay for it you might have to go without a lot you get now. There's a family from the country next door to us—four children. When they came here last fall and the father got work at \$3.50 a day they thought they were on the straight road to wealth. The oldest boy went to high school and everyone was as pleased as Punch

with father's big wages. It lasted six weeks. Then they found the money just wouldn't go round. Now the boy is out of high school at work and the mother goes out three days in a week. Even then they hardly keep their heads above water. Their one hope now is to save enough this summer to pay their traveling expenses back to a farm."

"Seven dollars a day looks pretty good to me, though," said the first farm woman.

"You just come and try it," the first town woman said darkly.

"I guess none of us have all the argument on our side," interposed the second town woman. "They think we have a snap with all our money and we think they have a snap with all their free food and no water and light bills. Maybe we wouldn't just enjoy getting along without city conveniences, but I'd like to pick a fresh egg just once."

"I believe I'll stick to the farm," the woman who had wanted to move to town had been considering things. "I'd rather work hard than be always worrying about how to manage about the rent and never be able to get out and pick fresh stuff. We all have a problem these days, wherever we live, I guess."

"And we all think ours is the worst," said Mary.

DEBORAH.

## Combination Jellies and Jams

By Julia R. Davis

THOSE housekeepers who have not tried mixing fruits when making up the store of winter sweets, will find it a great advantage to adopt this practice. The combination of fruits give a variety to the preserves, and by changing the mixtures and proportions, a still greater variety can be obtained. When small fruits are used in the preparation they are left whole. Larger fruits are cut into small pieces.

Sometimes there is trouble in making jellies, but assured success can be gained by using one-fourth of sour apples to three-fourths of the bothersome fruits. Take peaches for example. Peach jelly is about the most difficult to make. But when you add one-fourth the quantity of sour apples, the result will be beautifully tinted, firm jelly with a peach flavor. So it is with pears and plums. The apple taste is lost or simply adds a flavor very unlike its own, but very pleasant. Even carrots can be made into an appetizing, healthful jelly by adding as many apples to them. Grate the carrots or put them through the food chopper. To the pulp obtained add the apples, cook, drain and proceed in the usual way.

A can of pineapple added to preserved pears will make the whole taste like preserved pineapple. Grapes and apples make a good combination for marmalade. Boil the grapes after pulping them—skins and pulp separately; run pulp through colander; strain the

skins. Pour together, and to each quart of the mixture add the same amount of sour apples, the juice and pulp of four lemons, one ounce of stick cinnamon, broken in bits and tied up in cloth, and two and one-third pounds of sugar. Stir until the

sugar dissolves. Boil one-half hour; take out the spice bag when the flavor suits. Put up like jelly. This will keep for years. Other appetizing combinations are apples and quinces; raspberries and cherries; plums and quinces; pineapple, strawberries and peaches.

The following combinations are conserves which are used as condiments or as spread for sandwiches:

### Plum Conserve.

4 pounds of plums  
3 pounds of sugar  
1 pound shelled nuts  
2 oranges  
1 pound raisins.

Remove the pits and chop the plums. Peel the oranges and slice thinly one-

half of the peel. Mix the chopped plums, orange pulp, sliced orange peel, sugar and raisins, and cook altogether rapidly until thick as jam. Add the nuts five minutes before removing from the fire. Pack hot into sterilized jars, seal, and boil (process) in hot water bath for ten to fifteen minutes for half-pint jars and thirty minutes for pints.

### Fig Conserve.

2 pounds of fresh figs or one quart of plain canned figs  
1 orange  
1½ pounds of sugar  
½ cup of pecans (shelled)  
½ pound of raisins.

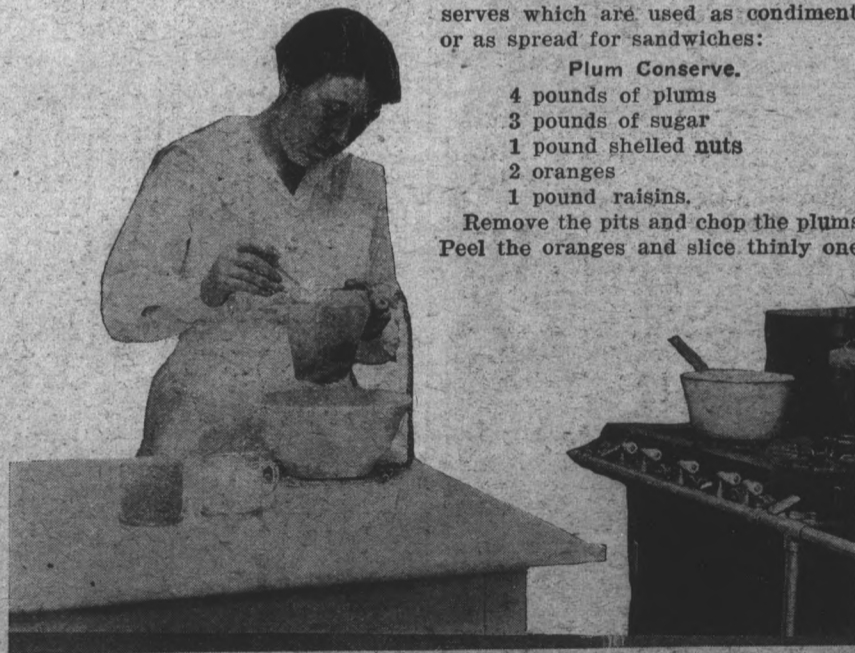
Cut all, except nuts, into small pieces and cook until thick and transparent (about one hour). Add nuts, five minutes before removing from stove. Pack and seal hot. Process as for plum conserve.

### Medley Fruit Conserve.

2 pounds peaches  
1½ pounds quinces  
1½ pounds pears  
1 pound apples  
3 lemons  
sugar.

Wash, peel, and core or stone the fruit. Pass through a food chopper and weigh. For each pound of fruit allow three-quarters of a pound of sugar. Put fruit and sugar in alternate layers in a bowl and let stand over night. Place the fruit, the pulp of the lemons, and one-half the rind of the

(Continued on page 212).



This Convenient Jelly Strainer Leaves Both Hands Free.

# Beets Served in New Ways

By Gracia Shull

### Beets in Jelly.

Boil, peel and chop several medium-sized new beets. Let cool and mix with them one cup of cold chicken, pork or mutton, chopped fine. Pour over the mixture one pint of lemon jelly made from jelly powder that has been dissolved and is beginning to set. Mix well, pour in a mold and let it get firm. Slice and serve on a platter or on individual plates garnished with crisp lettuce. Place a spoonful of salad dressing on each portion.

### Beet Green Salad.

Cook in salted water until tender, one-half peck of tender beet leaves with the tiny beets attached. Drain and cool. Peel the beets and chop the leaves. Mix the leaves with three chopped, hard-boiled eggs and enough mayonnaise dressing to moisten nicely. Pile in the center of a shallow salad bowl. Garnish with the tiny beets, small balls of cottage cheese and shredded lettuce leaves.

### Beet Greens Served Hot.

Cook as many beet tops as desired in salted water until tender. Drain and pile on a platter in a mound. Dress with melted butter, white pepper and juice of one lemon and serve hot.

### Beet and Vegetable Salad.

Cut two cold boiled beets in small cubes. Slice four small, cold-boiled car-

rots and one dozen small white onions. Mix and add one cup of cold boiled peas. Dress with mayonnaise and serve in a bed of shredded lettuce leaves.

### Baked Beets.

Clean the required number of beets, place them in a pan containing one-half inch of boiling water, and bake until tender. Just before removing from the oven lay a slice of broiled bacon and a spoonful of shredded green pepper over the top of each beet. Salt and pepper to taste, dress with a little butter and serve hot.

### Beet Cups.

Peel six boiled beets and scoop out the center to form cups. Chop the part removed with one cup of white fish—cold boiled or baked—and six or eight stuffed olives. Add two tablespoonfuls of thick cream, one tablespoonful of prepared French mustard, salt and pepper to taste and juice of one lemon. Mix and fill cups. Grate the yolks of two hard-boiled eggs over the top and lay rings of the white of eggs and a sprig of parsley on the plate with each salad cup.

### Beet Jelly.

Pour one pint of boiling beet juice over the contents of one package of lemon flavored jelly powder; add two tablespoonfuls of sugar. Pour into mold and let harden. Serve in squares as garnish for meats, fish, salads, etc.

# Swat the Fly

By Mary E. Kramer

"Oh, every fly that skips our swatters,  
Will have five million sons and daughters,  
And countless first and second cousins;  
Of aunts and uncles, scores and dozens,  
And fifty-seven billion nieces;  
So knock the blamed thing all to pieces."  
—Walt Mason.

A female fly lays about one hundred and twenty eggs at a time. She lays two, three, or four batches of eggs. In one day the eggs hatch into little white maggots. After five days each maggot goes into the pupa stage. Five days later the fly emerges full grown from the pupa. Fourteen days later the female flies lay eggs and start other big families on their way. Swarms of flies during the late summer mean that we have not been busy swatting flies during the early spring months.

Let us make up our minds that we will not have flies in the house. Every member of the family should know that flies carry filth and disease germs. Don't let mother do all the fly swatting. Every member of the family should help.

### How We Can Get Rid of Flies.

Screen porches, doors and windows. Trap the flies—swat the flies. Haul out the manure. Kill the winter flies. Make all privies fly-proof. Each community breeds its own flies. Flies do not travel more than one hundred yards from their breeding places.

The fly that creeps over the face of a tubercular patient in the palatial home, in the cottage, or hospital, may deposit a deadly germ on the lips of a healthy person in your house, marking another victim for the great white plague.

Trap the fly before he gets into the house. There are several traps which can be made easily. Hang the trap about ten feet from the back door or put it near the stables or outhouses. Protect it from the wind. Bait it with banana peeling, sugar and vinegar, or a piece of meat.

Some people think they can keep

their home sanitary by cleaning up their yard and dumping the trash on the other side of the fence. But the height of the fence does not bother the fly.

Filth always attracts flies, and carelessness about leaving garbage about, or throwing refuse or slops in the back yard, soon advertise itself to the flies. If you want to know about a family look at their back yard. It is an insight to their character, their health, and their citizenship.

Finally, keep everlastingly at it. That is the only way to succeed in anything, and it is especially true in combating a pest, such as the fly which multiplies with such alarming rapidity.

### HOW WE DO IT.

A teaspoon of vinegar added to each gallon of water in the boiler in which white clothes are scalded will whiten them.—Mrs. L. M. T.

If tablecloths, napkins and handkerchiefs are folded a little beyond the middle when ironing, they will last much longer, as it is on the edges of folds where they first wear, and by folding not on the middle line, with each ironing they get a new crease.—Mrs. R. G.

To bleach your handkerchiefs a pure white, after washing let them soak over night in water in which a bit of cream of tartar has been dissolved.—M. A. P.

For gingham and other colored cottons dissolve and add to every pint of starch, a piece of alum the size of a hickory nut to keep the colors bright.—Mrs. J. K.

I have discovered that when flannels have become hard and shrunken, they may be restored to their former softness by soaking them a short time in gasoline.—M. A. P.

Cedar oil rubbed on the side walls and under side of shelves in closets is good for prevention of moths. Turpentine rubbed on carpets under heavy furniture and in corners will keep the moths away.—Mrs. J. J. O'C.



# Don't Pare Peaches Plums and Pears

IT'S the old, slow and wasteful way of removing the skins when preserving and canning. Not only is it slow and tiresome, but it wastes the fruit next the skin—the finest flavored portion.

You can remove the skin from peaches, pears, and plums just as the best California canners do by using BABBITT'S Concentrated LYE. The U. S. Government Board of Food and Drug Inspection has ruled that this method does not injure the quality or flavor of the fruit.

Simply dissolve half a can of BABBITT'S Concentrated LYE and a half ounce of alum in nine gallons of cold water and boil in an iron kettle. Put the fruit in a wire basket or cheesecloth and suspend in hot solution for two minutes. This will remove the skin. Then wash fruit twice in cold water to cleanse thoroughly. For small quantities of fruit, use four tablespoons of BABBITT'S Concentrated LYE and a pinch of alum to one gallon of water.

This method leaves the fruit whole and perfect and does not injure the quality of flavor.

No fuss, no muss, no special utensils.

Insist on BABBITT'S Concentrated LYE to be sure of the best results.

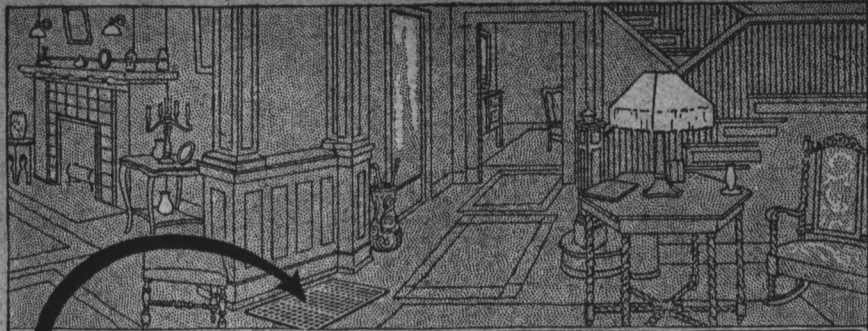
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Letters from users tell stories of almost unbelievable economies effected with this heater. The Estate uses much less fuel than stoves and fireplaces necessary to do the same work.

IN its FIFTH successful season. Thousands installed in old and new homes, stores, churches, etc., in every section of the country, and all delighting their users.

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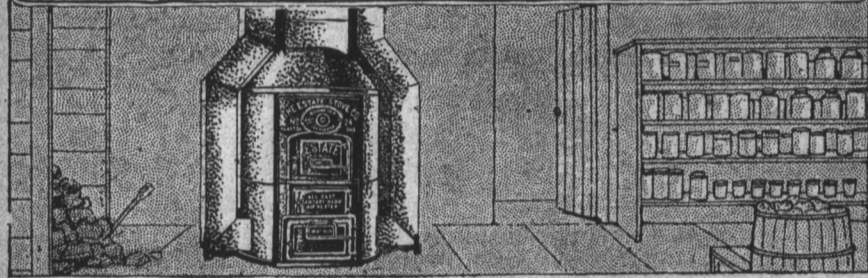
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## Fence In the Toddler

By Dorothy Canfield Fisher

PERHAPS the greatest privilege is the wonderful resource of having all outdoors, but this is a privilege which the mother of young children is apt to neglect. She herself must be in the kitchen or near it during much of the day, and she must have her babies where they are within sight. It often follows that country little folks spend most of the time hanging drearily around the kitchen where they are in the way and where the air is not always good.

But what else can the busy mother do? She can apply to her children the lore she has learned about little chicks. Fencing will keep little children safe from automobile haunted roads, from wandering cows, from running out of sight of their mother's eyes. And there is no farm in the country where there is not enough discarded material of one kind or another lying about to inclose a spot, say twenty feet square, though it might be larger to advantage. It is better if there is a tree to furnish some shade for hot days, but if there is none near enough to the house, a piece of old paper roofing or a section of old corrugated metal roofing, or some old boards with odds and ends of shingles put over them, will furnish shade for hot days.

Little children wish and need to be doing something with their bodies and hands every minute they are awake. The problem is to provide them with something to do which cannot hurt them, which will help them to grow, and which will not be too upsetting to the regularity of the family life. To begin with, if a load of sand is dumped in one corner of the baby yard, and some old spoons and wornout utensils contributed from the kitchen, there will be many hours of every day during which the fortune of a millionaire could give the little folks no more happiness.

A piece of planed board can be nailed upon four stout sticks driven into the ground and another on higher sticks put before it, and the little folks will have a bench and table which cost but a few cents, and are as serviceable as the pretty painted ones which cost ten times as much. Potters' clay can be bought for a few cents a pound and for a variation from the sand pile plays, young children will gladly turn to clay modeling. If the clay is kept where it can be obtained easily, it is possible that one or more of the children may show some stirrings of native ability and begin to try to reproduce the animal life of the country. If the mother has time and ability to supervise the play, so much the better, but if she is so busy that she can only call out from the kitchen a suggestion to make some little cups and saucers, or a bird's nest and eggs, this will serve very well for a beginning.

If four strips of wood are nailed in the form of a square at one end of the little table and a pan half full of water is set securely down into the square so that it will not tip over, another great resource is added to the play yard. With an apron of oilcloth, a spoon and an old tin cup, it is an abnormal child who is not happy and harmlessly busy for a long time each day. Any ordinary child a few years of age loves to play with water in this way and learns steadiness of hand and sureness of eye which go a long way toward insuring agreeable table manners at an early age. As he grows older a fleet of boats made of bits of wood or walnut shells vary the fun. An apron can be made in a few minutes out of a few cents' worth of table oilcloth. If the mother is very busy she can simply fasten it together at the shoulder and back with safety pins.

Children under four delight in climbing, and if possible provision should be made for that. A wooden box can be set a little down in the ground, so that it will not tip over, and the edges padded with a bit of an old comforter, so that the inevitable bumps are not too severe. The smallest children, even the baby who cannot walk, will rejoice endlessly in pulling himself up over the edge and clambering down into the box, thereby exercising every muscle of his body.

Little children cannot co-ordinate their muscles quickly enough to play ball with much pleasure, but if a large soft ball is suspended by a long cord, they can swing it back and forth to each other with ever increasing skill, and they should have a rubber ball to roll to and fro on the ground. If a two-by-four board is laid on the ground the little folks will find much fun in trying to walk along it, and thus acquire a considerable addition to their capacity for walking straight and managing their bodies. A pile of hay or straw to jump into will save the little gymnasts from bumps and bruises.

Nothing in this baby yard need cost a farmer's family more than a few cents, nor take but little time and almost no carpentering skill. And yet, the suggestions made cover a very complete outfit for the outdoor exercises of children under five or six. Any mother who makes this provision for play may be sure not only that her own little children will pass numberless happy hours, but that they will never lack for playmates, because their play yard will be sought out by all the little folks in the neighborhood.

### CANNING COMPOUNDS HARMFUL TO HEALTH.

CANNING compounds sold under various trade names for use in home canning are often harmful to health and should never be used by housewives, say the specialists of the Bureau of Chemistry, United States Department of Agriculture. These preparations, which are usually in powdered form and contain salicylic acid or boric acid, are unnecessary since fruits and vegetables can be kept for long periods in perfect condition without any chemical preservatives whatever if proper methods of canning are followed.

The Federal Food and Drugs Act prohibits the use of harmful preservatives in foods which come within its jurisdiction. The food laws of nearly every state in the union forbid the sale within the state of foods which have been preserved with harmful substances. Although neither the federal or state laws apply to foods canned in the home and consumed there, the housewife should not use, in the foods she preserves for her family, substances that are prohibited by law in foods for sale because the substances are injurious to health.

### COMBINATION JELLIES AND JAMS.

(Continued from page 210).

lemons, sliced thin, into the preserving kettle, and boil until the mixture is thick as jam. One cup of scalded chopped nuts may be added, if desired five minutes before removing from the fire. Pack into hot sterilized jars and seal at once.



ACCUMULITIS.

MODERN housewives are rather preening themselves these days upon their growing efficiency, and the results they are obtaining. But no woman should dare claim efficiency whose house harbors a useless accumulation of things which absorb her time, strength and attention needlessly.

One woman realized she was wasting time and strength over the non-essentials and was suffering from the disease of accumulitis, so she began her emancipation by elimination. Her spacious attic that had formerly been crammed with trash she divided into a large play-room for her small children and a gymnasium for her growing boys, and considered it put to an infinitely better use.

Her broken furniture was not stored away. What she wished to keep she took to a shop, and had mended for continued use. If she did not want it, she gave it to someone who needed it more than she possibly could at some remote date.

The woman with the mania for accumulitis, or hoarding, is often the most extravagant. She saves what she could make immediate use of and buys needless new material because no mind could remember all that she has stored away in a multitude of trunks, boxes, and drawers. In most instances, what we put away in a store-room for safe-keeping is certain to remain indefinitely. And it often happens that the most useless articles are put away carefully and handled over one house-cleaning after another. What possible use can one expect to make of ancient hats, wornout shoes, broken utensils, and out-of-date magazines and papers?

"Where do you keep all of your old things?" I asked a friend, viewing with pleasure an orderly and almost empty store-room.

"I don't keep many things," she replied. "Of course, some articles, although of no real value, I prize from association. These I store away carefully. But usually when we stop wearing garments, they are made over as soon as possible. If I do not need it, it is given to someone who can make immediate use of it, otherwise it is cut up for various uses. In the kitchen is a deep drawer where I put cloths for cleaning purposes. In the sewing-room is a basket for other rags which I am working up at odd moments, winding into balls for rugs, and that is the end of it."

And this is the sensible view most of our modern housekeepers are taking of this question. A crowded store-room represents to her not a commendable saving, but a lamentable negligence. Don't salve your conscience by tucking things away to be used "sometime." This new way may mean the piling up of work at a busy season, but a crowded sewing-room and overflowing mending basket may bespeak more capable and efficient housekeeping than an attic crammed with discarded garments.

So let's emancipate ourselves from accumulitis by elimination, before we demand commendation as housekeepers. Keep those things which are essential to the comfort of our families and the orderly and attractive aspect of our homes, and systematically discard the useless and non-essentials. This course will be the means of a great saving of time and energy. It is the lack of decision to cast away once and for all articles whose real value is questionable that makes a home cluttered and disorderly. Mrs. J. D.

Save old kid gloves for ironing day. Sew a piece from the left glove on to the palm of the right one, and you will find your hand is saved from becoming blistered, while the fingers and back of the hand will be protected from the scorching heat which is so damaging to the skin.—Mrs. J. J. O'C.

# Lily White

"The flour the best cooks use"

Undoubtedly the finest all-around flour in Michigan. There is no waste to LILY WHITE FLOUR. It is all flour, every bit of it. All undesirable material is eliminated during the process of making.

The wheat is cleaned three times, scoured three times and actually washed once before going onto the rolls for the first break.

The result is perfectly pure, clean flour. Our money-back guarantee is behind it.

VALLEY CITY MILLING COMPANY  
GRAND RAPIDS, MICHIGAN.

## Ring Necked Pheasants

We can now make shipments of our birds. They will lay next spring—are easy to raise and do not eat one-half as much as chickens. These birds are not subject to disease—are hardy and unrelated. You can sell their young and eggs at good prices—they are much more profitable than chickens.

Single Pheasants \$ 6.00 Each  
5 Hens, 1 Cock (Pen) 30.00

## Genuine Wild Mallard Ducks

Guaranteed to be from nothing but genuine Wild Trapped stock—not the coarse semi-wild strain. Will lay next spring. Fine eating—good decoys—and money makers.

Single Ducks or Drakes \$ 5.00 Each  
5 Ducks, 1 Drake (Pen) 25.00

## Bloomfield Giant Bronze Turkeys

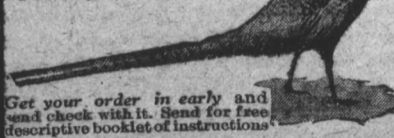
We have some of the young for sale, from our wonderful 55 pound tom "BLOOMFIELD KING." Why not buy one of our fine extra toms and improve your flock.

Pullets . . . \$ 15.00 Each  
Cockerels . . . 20.00 to 35.00 Each  
Hens . . . 20.00 Each  
Toms . . . 35.00 to 50.00 Each

We are accepting orders now for eggs from our Pheasants, Wild Mallard Ducks, Turkeys and Single Comb Rhode Island Red chickens for spring delivery. Orders will be filled in the rotation that they are received.

## Bloomfield Farms America's Largest Game Farm

1714 Penobscot Bldg.  
Detroit, Michigan



Get your order in early and send check with it. Send for free descriptive booklet of instructions.

## Mount Sinai Hospital School of Nursing

A three years' course in the theory and practice of nursing with the facilities afforded by this modern, fully equipped institution, is offered to qualified young women desirous of entering the Nursing Profession. The curriculum has been carefully planned, emphasizing especially the educational and cultural development of the nurse. The Fall Term commences October 1st. For particulars address Principal of School, 1800 East 105th Street, Cleveland, Ohio.

**Wanted Man and Wife** to work farm. Must be ambitious man and not afraid to work and run the farm in capable manner. Electric lights, hot and cold water, bath and heat furnished. Good wages to the right man. Give all particulars with reference, Michigan Farmer, Box 8 523.

## POULTRY

### Yearling Leghorns

400 S. C. White Leghorn Yearling Pullets from two of the best colonies; a valuable fowl for the farmer-poultryman. Write for Fall Price List and illustrated spring catalog, if you do not have the catalog now.

Standard breed Cockerels, Guinea, Ducks, Geese, Turkeys, for fall delivery.  
Rabbits—Belgians; New Zealand; Rufus Reds; Flemish Giants.

STATE FARMS ASSOCIATION,  
Bloomington, Michigan

**Barred Rocks** Exclusively. Baby chicks all gold. Thanks to all our customers. Order early for next season. H. H. Pierce, Jerome, Mich.

### LOOK BABY CHICKS \$12 A 100 UP

By Special Delivery Parcel Post, postage paid 20 different thoroughbred breeds, Utility & Exhibition grades. Live delivery guaranteed. Capacity 100,000 weekly. Catalog free. Nabob Hatcheries, Gambier, Ohio.

**Buff Leghorns**, and White Leghorns. 100 early hatched Cockerels from great laying strains \$1.50 each. Dr. WILLIAM SMITH, Petersburg, Mich.

**Barred Rocks** egg contest winners, eggs from strain with records to 200 a year. \$2.00 per setting prepaid by P. P. Circular free. FRED ASTLING, Constantine, Mich.

**Fowler's Buff Rocks** Cockerels \$5 up. Utility eggs for hatching \$2.00 for 15. B. B. FOWLER, Hartford, Mich.

For sale "Buy the Best" eggs for hatching from 200 egg strain Barred Plymouth Rock. \$2.00 per 15, \$5.00 for 45 eggs. H. B. PROCTOR, Grand Haven, Mich.

### March Hatched R. I. Red Cockerels

Both Combs. Write for prices and order early. Interlakes Farm, Box 39, Lawrence, Michigan.

**R.C. Brown** LEGHORNS, Pekin Ducks, W. Chinese Geese. Place orders early for young stock. Mrs. Claudia Betts, Hillsdale, Mich.

**S. C. Brown** Leghorns. Heavy laying strain. Cocks, cockerels and yearling hens for sale. Floyd Robertson, R. 1, Lexington, Ind.

**S. C. B. Minorcas**. Eggs from pen 1, \$3.00 per 15, from pen 2, \$2.00 per 15. Incubator eggs \$7.00 per hundred. R. W. MILLS, Saline, Mich.

Silver Golden and White Wyandottes young breeding stock after Oct. 1st. Choice cockerels \$5 to \$15. Write your wants now. C. W. Browning, R2 Portland, Mich.

## Farms and Farm Lands For Sale

Michigan Country Home in "The College County" for sale. Immediate possession; on long term contract if desired. Fully equipped 220-acre dairy farm with established state and federal inspected herd, registered Holstein-Friesian cattle; two good farm homes within 15 minutes of State Normal College, 30 minutes of University of Michigan, 50 minutes of Detroit, 90 minutes of Toledo, over good roads. With or without cattle and equipment. William B. Hatch, Ypsilanti, Mich.

## 1370 ACRE FARM

For Sale within two miles of Bartles Station on the Detroit, Toledo & Ironton R. R., 12 miles north of Ironton, Ohio, and on macadamized road. 300 Acres cleared, the remainder in uncultured second growth timber from 45 to 75 years old. Plenty of water and all fenced. Good 7-room dwelling, 35 tenement houses, store building, four stables, crib, warehouse, mill and machinery for grinding, clay, orchard. Large area underlaid with No. 5 coal, limestone and good No. 2 fire clay. Well suited for stock farm and timber business. E. B. WILLARD & CO., IRONTON, OHIO.

**MINNESOTA** farm opportunities are described by the U. S. E. R. Administration for the information of home seekers. Minnesota offers strategic location, dependable climate, fertile soils, abundant rainfall, pure water, good markets, excellent transportation and many social and educational advantages. Much desirable land at moderate prices. The book is fully informative about "The Bread and Butter State." If interested, send name and address, for a free copy of the Minnesota book, J. L. Edwards, Mgr. Ag. Sec., Room 655 U. S. E. R. Administration, Washington, D.C.

## Locate in Caroline County, VIRGINIA.

Caroline County, Virginia, offers unusual advantages and opportunities to homeseekers and those desiring to invest in farm and timber lands. Soil very productive and adapted to growing tobacco, truck, fruits, corn, wheat, oats, peas, beans, alfalfa, etc. Excellent transportation facilities—2 railroads and a water route connect with the principal nearby northern markets. For free map and booklet address Caroline County Improvement League, Bowling Green, Virginia.

## 344-Acre State Road Michigan Farm \$5000, with

Splendid 10-room residence, steam heat, house alone estimated worth \$7,000, large barns, etc., near R. R. town, 8 miles large city. Productive loam tillage, 50-cow pasture, wood, timber, orchards. Borders river, motor bus passes door. To settle now, low price \$5000, only \$1500 down gets all. Details page 78 Catalog Bargains 19 States, copy free. Strout Farm Agency, 81-80 Ford Bldg. Detroit, Mich.

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**167 Acres**. Two-story, 12-room house, papered, red, 100 sheep and 5 cattle, 4 horses, 50 hens. Farm tools. Plenty fodder for stock. All goes for \$8,500, good terms. Hall's Farm Agency, Corning, New York.

**Rich Michigan Farms**. Low prices. Easy terms. STAFFELD BROTHERS, 35 Merrill Building, Saginaw, Michigan

Rich Michigan farms, low prices, flowing wells. Clay R. subsoil, good clover and timothy, well drained, near school. O. M. Smith, Care State Bank Coleman, Mich.

**Look for a Farm?** Don't fail to send for our list and prices. T. S. AUBLE CO. WELLINGTON, OHIO.

**IF YOU WANT** to sell or exchange your property write me. JOHN J. BLACK, 105th Street, Chippewa Falls, Wis.



# Our Boys and Girls

## At Work and play



# Trailed by a Cougar

By Ladd Plumley

STUART BALDWIN was invited by his uncle to spend his summer vacation at a ranch in the foothills of the Rocky Mountains, and one night the men of the ranch exchanged stories about the animals of the Rockies.

"I was once trailed by a lion," said Dave, one of the cowboys.

"I didn't know there were lions in America," said Stuart.

"Not the kind of lions you see in a circus," replied Dave. "But our mountains lions are almighty savage, 'cougars,' the naturalist called 'em I guided one time. Sometimes they're called panthers. When they are hungry they are pretty dangerous.

"I thought panthers wouldn't attack a man unless they're cornered," said Stuart.

"As a rule that's so," agreed Dinkley, another cowboy. "But if they're hungry they'll sure tackle a chap."

"The lion didn't get me," went on Dave. "But I've the hunch it was because it found another kill. It was on a trail that ran to a sheep run, when I'd been sent in with provisions for the men. The lion kept on my trail for five miles, but until I turned back I didn't know it. I was on foot, for a pony couldn't make the climb, and going back I ran onto the track of the socker of a lion, and he'd trailed me on and on.

"But I'm ahead of my story. For when I come to the big lion's track, thinks I, there must have been a reason why the critter left me. There was. A rod one side the trail I see a fawn's track, and I remembered in the morning I heard a deer, but didn't see it. There in the sand was the lion's track, and the critter had left me and followed the fawn. Just beyond the lion made his killing, and he'd eaten the fawn. There wasn't anything but bones."

A few days later Stuart decided he would go fishing to a stream noted for its trout, which was reached by a trail that led over a divide. Dave was to go fishing with him, but when they reached the top of the divide Dave picked up the trail of a valuable heifer,

er, which had been lost for several days.

"You'd better follow the cow," said Stuart. "Uncle has taken me over to the creek and I'm not afraid to fish it alone."

"I think that's best," replied Dave. "I ought to hunt up the heifer. You'll be all right." And Dave went away.

By noon, when Stuart ate his lunch, he had half-filled his basket, for the fish took the fly well. He was tired out with scrambling over the boulders and sat for some time in the shade of a rock. It was a lonely place, but Stuart is an enthusiastic fisherman and is frequently alone at the stream-side. But just as he was dipping his creel into the stream, so as to keep his catch in good condition, he started to his feet. "What's that?" he exclaimed, and above the churn of the water, way off on the ledges, an animal gave forth a cry which was not unlike a woman's scream.

For a time Stuart continued to listen, but the cry was not repeated, and soon the sport of the afternoon made him forget what he had heard. Two more hours passed, and what with the weight of his fish and the incessant scrambling amid the boulders, he was ready to give up his fishing. After taking his rod apart he rested for a few minutes and then began retracing his steps toward the trail back to the ranch. He had made the first quarter-mile, when coming to a stretch of sand he noticed an animal's footprints, which were like those of an enormous cat. "It isn't a big dog's tracks, and it isn't a bear track," said Stuart. "I have seen photographs of tracks and this is like a tiger track—but there're no tigers in Colorado. It must be the track of what Dave calls a lion, and it looks as if it had been trailing me. When I turned maybe it took to the woods."

Stuart had no weapon, and the remembrance of Dave's story, and the loneliness of the solitude about him, caused him to hasten his steps, but at first he was not much frightened. For a while he continued at a good pace, then a thought came to him. Suppose the panther didn't make off into the forest and suppose it's still on my trail!" he exclaimed. "Perhaps it's waiting until it gets toward dusk to make an attack. And before I can make the top of the ridge it'll begin to be dark. I'll sneak back and try to find out if the brute is really following me."

Quietly he took the back trail, until he came to another of the sandy stretches which were frequent. Here again were the panther's double tracks, made when it trailed the fisherman

er, which had been lost for several days. Stuart's heart pounded, as he gazed all about him, but nothing but boulders met his gaze. "I'll make the best time ever!" he exclaimed, but even as he spoke he remembered he had read that a panther can run more swiftly than a running pony. "And there's no use climbing a tree," he said. "A panther there is as much at home in trees as on the ground."

For some moments Stuart gazed in the direction where his enemy was doubtless lurking, and nobody can blame him that he was almost frenzied with fear. "The brute is waiting for dusk for its attack," he whispered. "I must find a way to save myself, although there doesn't seem to be a way!"

Fearing if he approached the place where the animal was lurking it would make an immediate attack, Stuart continued his retreat, but believing the panther was still following, he frequently turned, but did not see the beast. Dave had told him a mountain lion was fond of trout, and an idea came to him. "I'll leave my creel on this rock," he said. "Perhaps when the panther has eaten the fish it will stop trailing me."

The basket was left on the rock, but Stuart wanted to make sure that the animal was satisfied with the meal of fish and had given up the pursuit, so he climbed to a ledge, from whence he could see the basket. Almost immediately the cougar sneaked from amid the boulders and leaped upon the basket. But in its hunger and eagerness, it secured but one of the fish; for its leap overturned the basket and rolled it into the stream. With a loud snarl the cougar gulped down the one trout it had secured, glaring meantime directly toward Stuart, who fearing an immediate attack slipped away, and the silent pursuit began once more.

"There must be a way to escape the horrible creature," panted Stuart. "The sun is dropping low and the creature may sneak upon me any time. There is only one thing that can save me—fire! I'll make a fire!"

But it was easier to think of fire than to make one that would bring security, for nowhere was there any-

thing but boulders and small bunches of grasses. As Stuart's mind frantically searched for a method of discouraging by fire his unrelenting pursuer, he remembered that where the trail began its climb away from the creek was a half-mile stretch of tall grasses and bushes, dry as tinder under the midsummer sun.

Now that a plan for deliverance had come, he made quicker progress, but several times he turned to catch fleeting glimpses of his indefatigable pursuer. At length, his breath coming in gasps, soaked with perspiration, with the rapidity of his retreat, his heart pounding and his head throbbing, he stumbled into the expanse of dry grasses and bushes. Fortunately there was a breeze which blew directly down the creek. Near the water he frantically gathered together a heap of dry stuff, and pulling a match from his pocket set fire to it. Then, stumbling a rod or so away, he made another fire, and still another at a little further distance. The last heap of grasses was bursting into flame, when from the rocks but a few rods distant he heard a wild scream from the panther, and a few seconds later, as the fires, fanned by the breeze, caught the tall

(Continued on next page.)



TEDDY'S JOB.

Get down there, Ted, you piggy,  
You've had your morning ration  
Of balanced bran, and milk, and corn,  
In just the right relation;  
And there's the lush alfalfa  
Clear up above your snout,  
That ought to make a hog of you  
If you do what you ought.

A slick two hundred pounder—  
A pound a day or more—  
You must be putting on in pork  
If you are to win a score.  
You've got to beat Dad's last year's  
hogs  
(I called one mine, to pet),  
But Daddy fed and paid for him,  
And the pork was Dad's, you bet.

But Ted, you're just my very own,  
Nine dollars down in tin  
I paid for you, and to earn your feed  
I have to work like sin.  
Now, Teddy boy, you understand  
The job you've got to do—  
You've got to pay that tin all back,  
And feed and profit, too.

For we are business farmers:  
I've got down every cent  
That you have cost, beside the work,  
Your pasture, and your rent.  
I'd like to be a farmer, Ted,  
Now chum, it's up to you  
To prove that growing pigs will pay  
With fun and profit, too.  
—By a Boy Business Farmer.



Lulu Bishop, of Marlette, Michigan.

grasses, and smoke began to ascend, heard a wild scream from the panther, the panther sprang out on top of a flat rock, its mouth extended, its teeth gleaming, and its tail lashing its flanks with its fury. Hardly conscious of what he did, the frenzied boy gathered a great bunch of dry grasses, and thrusting the bundle into the flames until it was a flaming torch, he leaped directly toward the panther, pushing the burning grasses fairly under the angry red eyes and almost into the distended jaws. With a mighty yell of rage and sudden terror the panther turned, dropping behind the rock and retreating a hundred yards, from whence it continued its wild cries.

Stuart retreated hastily, the fires, now a continuous line behind, making a flaming rear-guard; and within five minutes the entire upcreek end of the expanse of grasses had taken fire and was burning so fiercely that Stuart feared that before he could gain the end of the stretch he would be surrounded with flames. He broke into a run, and a few moments later, panting and choking, for the smoke had become thick in the valley, he began his climb toward the top of the divide.

Two hours later, a clear starlighted night had come, and Stuart was making fast time down the trail on the other side of the mountain. Late in the evening he stumbled into the ranch cattleyard, where the men were beginning to wonder why he had not returned.

"We were just talking of going to hunt for you when you opened the cattle-gate," said Dave, when the story of the cougar had been told. "And if you hadn't got the hunch of fire—well, seeing as you show yet what you've been through, that isn't nice to chuck you."

Stuart's uncle says the time has come when his nephew should carry a weapon, and on his next fishing trip he will have an automatic pistol, and if a cougar trails him, and he catches sight of the brute, it's likely there will be one cougar less in the state of Colorado.

PRIZE LETTER CONTEST.

DEAR BOYS AND GIRLS:

We were obliged to omit the contest letters this week. But next week we will print the winning letters entitled, "The Kind of Stories I Like Best," and I hope we will not have to miss another issue as long as your interesting letters keep coming along.

I wonder how many of you boys and girls will be at the State Fair this year? I hope I may meet many of you there. I shall spend as much time as possible near the automobile camp described on page 206 of this paper and hope that as many of you as can will meet me there so that we may become better acquainted.

Editor Boys' and Girls' Dept.

Our Prize Contest

TO the boy or girl writing the best letter, of less than 250 words on each of the following we will give a cash prize of \$1.

Subject of letter to be mailed by August 31:

"Fun on rainy days."

Subject of letter to be mailed by September 8:

"The best day of vacation."

Write neatly with ink on one side of the sheet only. Give your age, full name and address.

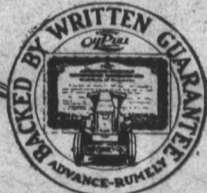
Address your letters to The Boys' and Girls' Dept., Michigan Farmer, Detroit, Mich.

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Low speed—heavy duty.  
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Crankshaft built to U.S. naval specifications.
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Rating based upon only 80% of maximum—20% reserve power.
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Hot riveted steel members.  
No bends—no splices.
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Cut steel gears.  
Enclosed and running in oil.
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On right hand side.  
Driven directly off crankshaft.  
No bevel gears—no intermediate gears.
10. **Governor controlled**  
Speed of motor automatically regulated to meet varying loads.
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Plenty of belt clearance.  
No sacrifice in design.
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Plenty of traction—easy to steer.
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Fits all implements.
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No danger of turning over.  
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15. **Hyatt roller bearings**  
Reduce friction—save power.
16. **Bosch magneto**  
Highest quality—highest price.  
Dependable service.
17. **Madison-Kipp lubricator**  
Individual leads to all bearings.
18. **Roomy platform**  
But a step from the ground.
19. **Easy to operate**  
No complicated mechanism.  
All levers within easy reach.
20. **Accessible**  
All parts easy of access.
21. **Dependable service**  
27 branch offices and warehouses.  
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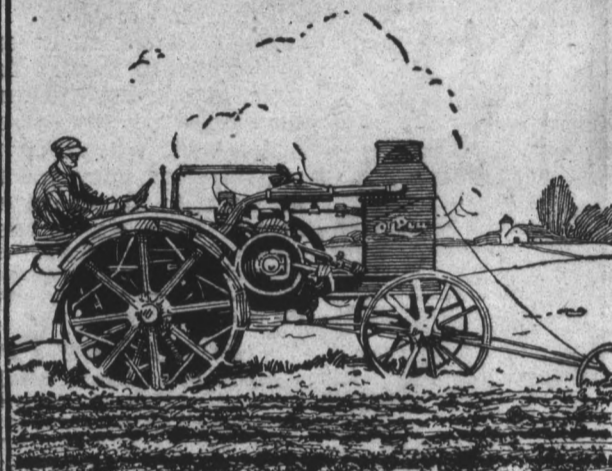
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- draw your own conclusions



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Retreaded—double chain stitched together. Nothing but first class materials used in treads and casings. Built so well, so carefully, so honestly that the satisfaction given by the first tire we sell you always brings you back for more!

Guaranteed, of course—even at these little prices:

Size	Price	Size	Price
30x3	6.50	34x4	\$11.00
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32x3 1-3	8.00	35x4 1-2	13.00
31x4	10.00	36x4 1-2	14.00
32x4	10.00	37x5	14.00
33x4	10.50	37x5	14.00

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THE BUCKEYE TRACTION DITCHER CO.  
361 Crystal Ave., Findlay, O.

**READ THIS LETTER**  
Work has been so plentiful that I have turned away more than I have done. The machine has given entire satisfaction and far exceeded my expectations. I find it very easy to average 130 rods working ten hours. The machine has been in operation for five months and during that time I have done work amounting to \$4000 which netted me \$2500.  
VICTOR MASON  
Mt. Pleasant, Iowa



Scene on the Well-managed Farm of E. L. Vincent.

## Badly Twisted

MY DEAR EDITORS:

This morning's mail brought me your letter, together with the page from "Michigan Business Farming." I am surprised by the misrepresentations of the editor, whoever he is. And I am sorry that I should have been the cause of it all.

The truth is, however, my little sheep story was all true. The girl who earned the flock of sheep mentioned afterward became Mrs. Vincent, and I had the facts from her. Then, too, the time mentioned for doubling sheep under the pasture plan was four years, not one. That is one thing I have always tried to do, keep close to my facts.

The facts about my own experience are as follows:

My father and mother had a little farm in Cattaraugus county, N. Y., near Gowanda. Father died in the War of the Rebellion, leaving mother with six boys and girls. We tugged on until we had cleared up the mortgage and had a comfortable home. At nineteen I went to work on the farm by the month, in Alleghany county. The next fall, with the ninety dollars I had earned, I began school at Friendship, New York, Academy. Teaching winters and working on the farm summers I finished the academical course. Then I entered Union College, but my health gave out and I had to leave. I went back to the farm, taught school and got my health back. Wrote a little account of a boiler explosion near Dayton, New York, which led to the editor of the Olean Times asking me to come as reported, which I did. Afterward I was editor of the same paper. From Olean was appointed after a competitive examination to a place in the Interior Department, living for three years in the city of Washington, and traveling as a special examiner for the department in Ohio, Illinois and Missouri three years more.

Tired of this, I bought the farm at Maine, New York, in 1889, ten miles from this city. We have added to it until we now have two hundred and fifteen acres. We do a general farming, cows, sheep, hogs, hens, everything that goes with that kind of farming. Our oldest son is now on the place, and Mother and I are there a good share of the time, especially during the summer months. Our youngest son is a doctor just home from France with a captain's commission. I never lived in the west, anywhere, save as stated when traveling for Uncle Sam, and surely never owned a foot of land there or anywhere else except in Broome county.

Since coming on the farm I have been honored with five years as member of the board of supervisors, representing the town of Maine, and two years at the state capitol, member of the assembly, serving on the committee on agriculture, taxation and re-trenchment, internal affairs and others. Mine has been an active life. I

have loved my work, having written four books, and acres of articles for papers and magazines. What I have written has always been from experience. I wish that distinctly understood. I am not a professional writer in the sense alleged by the "Michigan Business Farming." If the editor of that paper will come out here, I will take him over our place and be glad to set him right about some things concerning which he seems to be in error.

My first book was written after I had been at Albany. I had a big pile of "pole wood" at the door. For half an hour I would saw wood with a bucksaw and then go in and write half an hour. That book, "Margaret Bowlby," has been pronounced by good authorities the best political novel ever written. It was true to life as I found it, and helped many to see things in their right light.

Will you forgive me for writing at this length? I never have done such a thing before in my life, but I wanted you to know just how things have been with me. The inclosed picture is one our youngest boy took on the home place. We have one of the old home, but perhaps this one is enough. I thank you more than I can tell for wishing to set the man out there right. He certainly has gotten badly twisted somehow.

Yours sincerely,  
EDGAR L. VINCENT.

### DAIRY PRODUCTS TO STAY HIGH.

NO relief for several years from the high prices of butter, milk and cream is promised by members of the Kansas Creamery Men's Improvement Association, who met in Kansas City recently. G. L. Warner, president of the association, put the blame upon a shortage of dairy cattle, slaughtered during the war to augment the meat supply.

"It will take several years to build up the herds," he said.

Present prices are the highest ever known, Mr. Warner said. He added that butter prices are fifteen to forty cents higher now than before the war.

### WILL CONTINUE RATE CONTROL.

DR. EMORY R. JOHNSON, head of the rate investigation of the United States Shipping Board declares in a report, that "The Shipping Board will need to continue its control over charter and freight rates until the serious shortage in shipping tonnage due to the war has been overcome.

### BARS SUGAR EXPORT TWO YEARS.

REPRESENTATIVE ELLIOTT, of Indiana, introduced a bill in the house recently prohibiting the exportation of sugar for a period of two years. Violation would make any person or firm subject to a fine not exceeding the value of the sugar.

## Save on a Spreader!

### GALLOWAY'S GREAT OFFER

Get my new advertising proposition. It will save you much cash on any style of Galloway Complete Spreader. Ask for it now—today—as the time is limited. Remember that Galloway Spreaders take less horse and man power, spreading more land thoroughly with less effort than old style, cumbersome machines. Will supply your soil with plant food. Enables you to cash in big on record-crop prices. Helps your land to work overtime. Gets you 50 bushels where you got 25 before. Remember, manure is money but it must be spread on your fields to be worth anything.



### THE NEW DISTRIBUTOR

The greatest spreader improvement in years. Makes positive, manure distribution of six to seven feet. Breaks up all lumps that might slip through the beater. Absolutely pulverizes every bit of manure. Cuts down trips across the fields thus saving time and labor.

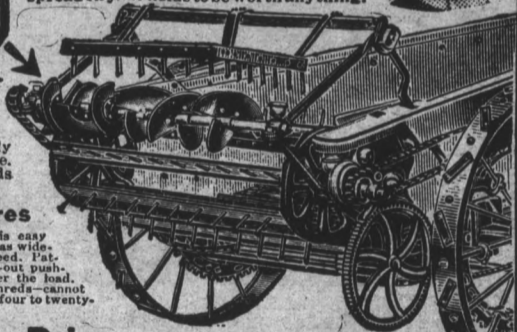
### Eleven Great Features

The new No. 8 Galloway low down is easy on the man and easy on the horse. Has wide-spreading V rake. Patented roller feed. Patented automatic stop uniform clean-out push-board. Short turn, all wheels under the load. All steel beater—ears manure to shreds—cannot twist, warp or break. Spreads from four to twenty-four loads per acre.

### Write for Low Price

Send at once for low price Spreader Offer and Galloway money-saving Spreader Books. They point the way to the best Spreader made at big savings. Close shipping points save freight. WRITE NOW—BUY TODAY AND SAVE MONEY.

Sold Direct from Galloway's Great Factories



WM. GALLOWAY CO., WATERLOO, IOWA

To be sure of a **Saginaw Silo** order now - Tomorrow may be too late - Write today

McClure Company, Saginaw, Mich.  
Saginaw Silos and Whirlwind Silo Fillers

Mention The Michigan Farmer When Writing to Advertisers



STATE AID FOR DRAINAGE.

SO far as I have been able to learn, New York is the first state to go into the business of farm drainage on an extensive scale. Last year there were operating in the state thirteen traction ditching machines owned by the New York State Food Commission. These machines excavated over 35,000 rods of ditch, tile draining between 5,000 and 10,000 acres of land. The average cost per yard, including all depths, was fifty-six cents.

It is claimed that several of the machines were operated at a loss. A few made money, while others cleared expenses. The soil conditions, lay of land, experience of the operators and accidents all had an influence on the earning capacity of the machines. This year, owing to increased cost of operation, a new schedule of prices has been arranged, ranging from fifty-five cents for a depth of two feet, six inches, to \$1.50 for a depth of from four feet six inches to five feet.

The state operators agree under the contract that the ditch when dug will be to grade, or as nearly so as reasonable effort on the operator's part can leave it. The farmer is to clear the way for the machine, removing stones, fences, etc., he is to have the tile on the ground before the arrival of the machine; to lay tile and furnish help to do the same; to do the back filling, and if necessary to board two men. He also agrees to furnish transportation of fuel, oil, supplies and repairs while the machine is working on his farm.

While the state owns the machines, they are operated under the supervision of the county farm bureaus.

This tile ditching is one of the most helpful undertakings in which New York state has ever engaged in aid of the agricultural interests. The state contains many thousands of acres of naturally fertile land that is non-productive because of too much moisture. By ditching, and tiling this land is made to produce large hay, grain, vegetable and fruit crops. There are many more thousands of acres that are wet and cold, and only under favorable conditions can the crops be seeded in season and a fair crop secured. Tile drainage will enable the farmers to get onto this land early in the spring.

E. E. R.

WISCONSIN COUNTIES BOOST PURE-BREDS.

"PURE-BRED sires pay," is the story that twenty-six Wisconsin county fairs will tell this year in special exhibits. Beginning with Boscobel, on August 6-8, for two months county fair visitors in all parts of the state will see the story acted out by scrub cows and their offspring by scrub and pure-bred sires. In most of the exhibits every dairy breed will be represented, and cow-testing records will support the evidence offered by the animals themselves.

Signs and charts prepared by D. S. Bullock of the college of agriculture are being sent out by the state live stock breeders' association to aid in making up the exhibits.

The exhibits will be part of the fairs at Boscobel, Marinette, Monroe, Tomah, Wausau, De Pere, New Richmond, Rice Lake, Ashland, Antigo, Fond du Lac, Janesville, Berlin, Richland Center, St. Croix Falls, Chilton, Bloomington, Grantsburg, Jefferson, Lancaster, La Crosse, Augusta, Oconto, Ladysmith and Mondovi. The live stock breeders' association will have an exhibit at the state fair in Milwaukee.

Many good breeders let the sow wean her pigs in order that the change may be made gradual, and that the growth may not cease when the milk diet is left off. A better plan, however, is to give the pigs access to a little grain before they are weaned, that their stomachs may be better accustomed to the change.

# Cletrac

## TANK-TYPE TRACTOR

(Formerly known as the Cleveland Tractor)

### Plows on the heels of the Harvest

The actual experience of farmers everywhere proves conclusively that wheat yields are increased from 5 to 8 bushels an acre by plowing immediately after harvest.

But this is usually the hottest and busiest season of the year when men and horses tire easily.

With the Cletrac Tank-Type Tractor you can actually plow right on the heels of the harvest—and do it so quickly that you will not interfere with cultivating, haying or other routine work.

Through the most extreme heat the Cletrac contentedly and steadily does a job that would kill a team. It will work all day and all night if necessary. You can drive it unmercifully—and in return get an increased yield of better quality, that will often pay the whole cost of the tractor in one season.

Prompt plowing after harvest enables your soil to soak up and store away moisture that would otherwise be lost.

But remember the Cletrac does far more than merely plow. That is only the beginning of its work. Its distinctive tank-type construction en-

ables it to go almost anywhere—particularly over soft plowed ground or moist or sandy soil where the average tractor would flounder or "dig itself in". All the power of the Cletrac is used to pull the implement. And because of its 600 square inches of traction surface it doesn't leave two packed down tracks of earth behind it.

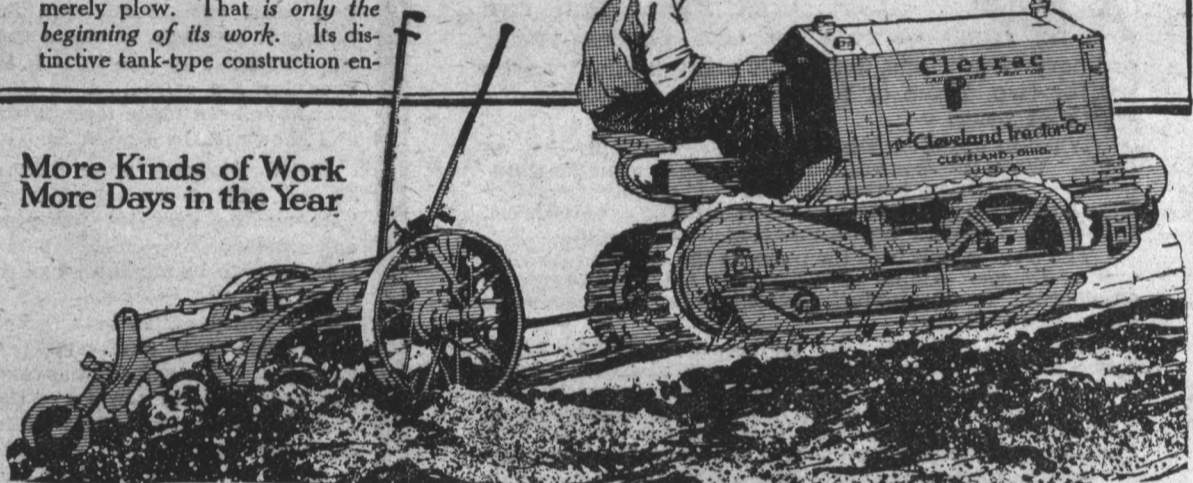
The Cletrac is extremely economical to operate, using kerosene, distillate or gasoline. Most owners are using kerosene or distillate.

Send for our booklet "Selecting Your Tractor". It will be a real help in solving many of your most difficult problems. And order early as we cannot promise prompt delivery later on.

The Cleveland Tractor Co.

19021 Euclid Ave., Cleveland, Ohio

The largest producers of Tank-Type Tractors in the world.



More Kinds of Work  
More Days in the Year

### BALE HAY NEW WAY

No Blocks—No Bale Ties—2 Men Less!

Save 40 per cent on baling cost! "Figure your saving by using straight wire. No Bale Ties." Get wise in the new method introduced by the marvelous new patent Self-Threading Hay Press. No blocks or bale ties to handle—save the pay of two men. Make big money baling hay for others. Write for free catalog showing all types of this wonderful new press. Write today—NOW!  
Threader Press Mfg. Co 1028B Ottawa St Leavenworth, Kan.



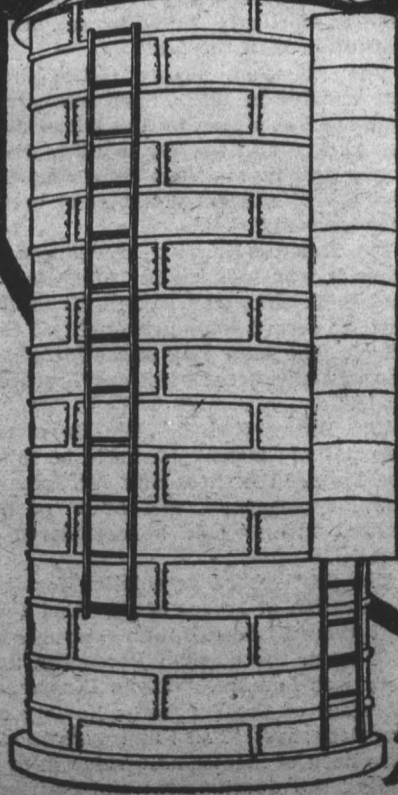
### BARN PAINT \$1 PER GALLON

Get factory prices on all paints. We guarantee quality. We pay the freight.  
Franklin Color Works, Franklin, Ind.

## MAKE PIN MONEY IN SPARE TIME

The Michigan Farmer makes attractive offers to lady representatives who will get subscriptions from their friends  
The Michigan Farmer, Circulation Dept., Detroit

# A Special Money-Saving Offer on Metal Silos



WE have a big, special money-saving proposition. It is for the first 500 far-sighted men who want the best kind of silo at lowest possible cost—a silo that insures perfect, unspoiled silage from top to bottom and lasts for a lifetime. Write for it today.

### ROSS In-De-Str-Uct-O Metal Silos

Acid proof, rust proof, and wind proof. Air tight, rain proof, and fire proof. Selected materials, best grade construction—made to withstand any climate and every change in weather. Built entirely of cold-rolled metal, treated to resist the acetic and lactic acids found in silage.

You erect the ROSS yourself—in your spare time. No experience necessary. No high priced labor or expensive scaffold needed. Any man who can tighten a nut on a bolt can have a perfect, air-tight, economical, and long lasting silo that will meet his every need.

#### Write for Special Silo Offer

Be one of the men to get our quick action, money-saving offer. Build any size you like and add to it as your herd grows. But do it now if you want to get the benefit of rock-bottom prices.

Agents—Some territory still open.

The E.W. ROSS COMPANY

Box 314,  
Springfield, Ohio

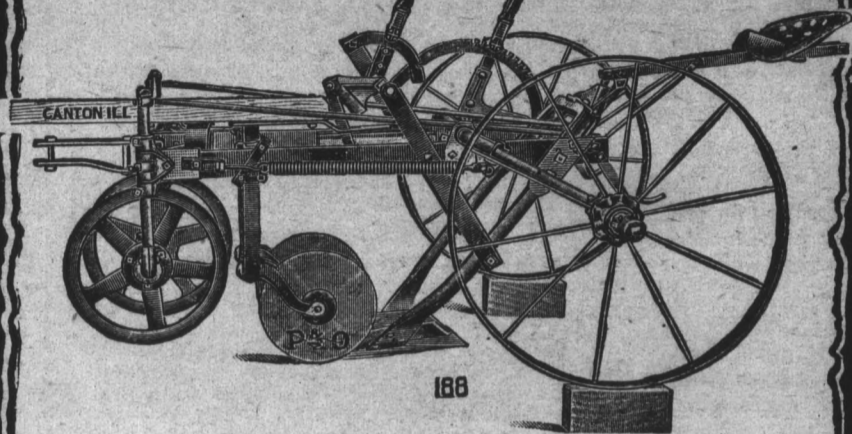
Lasts  
A Lifetime

#### Get These Free Books

A postcard brings these four valuable booklets free. Filled with facts regarding silos. A big help to the man interested in silage and silo construction. Write us today



**P&O Riding Beet Puller**



**Gets Every Beet - Whole and Unbruised Saves Money, Beets and Labor**

A FOUR-WHEEL Beet Puller that can be easily drawn by two horses under ordinary conditions, but with a hitch that can be set for two, three or four horses. Adjustable for width of rows.

When in operation the seat and tongue pivot—easy to guide. When lifters are raised the tongue is rigid for transporting. The lifting bars can be swung in or out for small or large beets, or to suit soil conditions. The lifters raise the beets, running at a shallow depth, reducing draft to a minimum.

The front wheels hold the puller to the row and assist in cutting foliage. Ample clearance for foliage—clogging is eliminated. Equipment includes rolling coulters, three-horse evener and neckyoke.

This mere outline of a few features of the P&O No. 2 Beet Puller does not by any means convey an idea of its worth. That it is made right—in design, construction, strength, and all those other things that a beet grower has a right to expect, is further evidenced by the fact that it bears the famous P&O trade-mark. It is now a product of the Harvester Company.

Ask the International dealer for a folder fully describing and illustrating the P&O Beet Puller.

INTERNATIONAL HARVESTER COMPANY



CHICAGO

OF AMERICA INC.

USA



**SHORTHORNS FOR SALE**

One Of The Best Small Herds In Michigan.

One herd bull; 5 cows, 3 with calves at foot; 1 2-yr. old heifer; 1 yearling heifer; 3 young bulls, 8 to 11 months old. These cattle are in excellent condition and can be seen at farm 2 miles south of Ithaca. Write, phone or better to come and see

C. V. TRACY, R. F. D. No. 6, Ithaca, Michigan. Both phones.

**BREEDERS' DIRECTORY**

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

**A bull calf, sired by our imported "EDGAR of DALMENY"**

recently sold in Scotland at the Perth Bull Sale for the record price of 2,100 guineas, or \$10,584.00 in our money. This goes to show the quality of the

**ABERDEEN ANGUS**

that Mr. Scripps is breeding. He enjoys seeing good stock on "Wildwood" and believes that THE BEST IS NONE TOO GOOD.

"Edgar of Dalmeny" won the Michigan Grand Championship last September at the Michigan State Fair and was a winner in his class at the Chicago International last December.

We have a few females with calves at foot and re-bred to "Edgar of Dalmeny" that Mr. Scripps has consented to sell to reduce the fast growing herd.

**WILDWOOD FARMS**  
ORION, MICHIGAN

W. E. SCRIPPS, Prop., Sidney Smith, Supt.

**WOODCOTE ANGUS**

Established in 1900.

TROJAN-ERICAS and BLACKBIRDS (Blackcaps).

The herd (tested annually) is absolutely free from tuberculosis.

A few bulls (no females) for sale

WOODCOTE STOCK FARM, Ionia, Mich.

**Cloverly Angus** Bred cows, heifers and bull calves of good breeding. GEO. HATHAWAY & SON, Ovid, Mich.

**Registered Guernseys** Choice May Rose Bull Calves—at prices you can afford to pay. J. M. WILLIAMS, North Adams, Mich.

**REGISTERED GUERNSEYS**

Just two young yearling bulls left, ready for service. Come and look them over quick, or write. They are the good ones. Priced to sell.

**AVONDALE STOCK FARM, WAYNE, MICH.**

**Guernsey** Pure Bred Bull Calves from one to two months old. \$50 each. "Registered" WALTER PHIPPS FARM, 30 Alfred St. Detroit, Mich.

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

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

For Sale: Guernsey bull calf fawn and white, 10 months old, a beauty, Nancy's Sequel 56736; Sire, Halcyon Sequel 22326; Dam, Nancy's Nancy 61002. Dr. W. R. Baker, 1360 West Fort St. Detroit, Mich.

**Guernsey Bulls** For Sale—St. Austell Dalton, 43928; born December, 1915. Sired by Don Diavolo of Linda Vista; Dam—Langwater Suffragette, A. R. 2346; Class A 585.18 butterfat. Also Niavara 2nd Duke, 50564; born December, 1917. F. E. Robson, Room 307 M. C. R. R. Depot Bldg. Detroit.

75 gets 1 1/2 mo. old son Maplecrest Horn Heng and 27 lb. daughter of Johan Heng. Lad. and 18.48 lb. daughter of Cal. Jane Paul A. Dam is my best milk-er. Terms. M. L. McLAULIN, Redford, Michigan.

**Registry Association Out-Growth of Fairs**

The Following Letters Were Made Available Through the Courtesy of G. W. Dickinson, Sec.-Manager of the Mich. State Fair

LIVE stock shows and fairs antedate all breed registry associations. The oldest shows of cattle were held in the Valley of the Tees in Northeast England. Fifty years later the Shorthorn Registry Association of England was established. The Shorthorn is the oldest registry association founded in England in 1822 and established in America in 1846.

Galloway cattle were first registered in 1857, but during the first five years only one hundred and fifty-three animals, owned by four breeders, were recorded. In 1877 the present society of Great Britain was organized. The secretary of the American Galloway Breeders' Association says: "It is hard to conceive of any advancement that could have been made without the show ring."

"The American Hereford Cattle Breeders' Association," says Secretary R. J. Kinzer, "was started about thirty-five years ago. I am sure that the Hereford breed today would not be in the position they are in if it had not been for the exhibition of Herefords that have been made through the fairs and shows of the United States."

Polled Durhams were first recorded in 1890. Secretary Martz says: "Among the agencies for promoting any grade of live stock I believe the show ring to be far and away the best of all plans."

Red Polled cattle have been registered since 1874. Secretary H. A. Martin says: "The principal advancement has been made by the use of the show ring, as comparison really affords the far better manner of selecting the most of it. Red Polls were shown at agricultural meetings fifty years or more before there was a herd book established."

The American Aberdeen-Angus Breeders' Association was organized in 1883 and now has nearly five thousand members. Secretary Gray says: "Without the show ring I am afraid our breed would have been a quarter of a century behind the advancement it has reached."

Standard Polled Hereford cattle have been recorded since 1902. The American Guernsey Cattle Club was organized in 1875. "The function of the show ring has been to unify the ideal type of Guernsey in the minds of breeders. In this respect it has fulfilled a function which would not have been as efficiently served by any other institution than the fair."

The American Jersey Cattle Club was founded in 1868. Systematic registration was begun by the Island Jersey Agricultural Society in 1834. Secretary Gow says: "The show ring has been a very efficient promoter of breed advancement."

The Holstein-Friesian Association of America was founded in 1879. Secretary F. L. Houghton says: "It is difficult to accord too much credit to the office of the show ring in the introduction and advancement of any breed of cattle."

The Brown Swiss Cattle Breeders' Association began business in 1875. Speaking of the show ring, Mr. Inman, secretary, says: "We know of no method which would be considered a parallel."

The first record association for the registration of horses of any kind (except thoroughbreds) was started in 1876 when the original Percheron Society was founded. Wayne Dinsmore, secretary of the Percheron Society of America, says: "Fairs and expositions have been of incalculable value in promoting the development and distribu-

tion of Percheron horses. I know of no satisfactory substitute for the show ring."

Hackney horses were registered in England in 1880 and in America since 1890.

The Belgian has been registered in America since 1887. "Without the show ring no breed of horses could properly be presented to the public as many more people visit the show rings in our various states than read the advertisements in our agricultural papers," says J. D. Conner, Jr., who has been secretary of the Belgian organization for thirty-two years.

The Cleveland Bay Horse Record Association was established in 1855.

Poland-China hogs have been registered since 1877. "Had it not been for the show ring, what possible method for advancement could have been devised?" A. M. Brown, secretary.

The American Berkshire Association was founded in 1879. Secretary Springer says: "The advancement of the breed is due largely to the show ring, since in no other way is it possible to bring together for comparison the animals of the different breeds."

The National Duroc-Jersey Record Association was organized in 1886.

The American Hampshire Swine Record Association was established in 1893. Secretary E. C. Stone says: "The show ring is the most important and best place to introduce live stock of quality."

The American Hampshire Sheep Association was organized in 1889—the English in 1854.

The American Shropshire Registry Association was organized in 1884.

The American Oxford Down Record Association was organized about 1880. The Continental Dorset Club was organized in 1898.

The American Southdown Breeders' Association was organized in 1882. F. S. Springer, secretary, voices the general sentiment of all the managers of sheep breeders' associations when he says: "The fairs have been the principal agency for the improvement of the breed and I do not know how the comparison of the handwork in improvement on the part of breeders could be compared except by these annual exhibitions."

**AIRPLANE DEVELOPMENT CREATES NEW GASOLINE ERA.**

ACCORDING to persons well informed on the situation, the recent flights across the Atlantic ocean in both airplane and dirigible will result in a new era in the oil industry that will be a close rival to the automobile, in commercial importance. Many oil men are now looking forth to that era and in all probability the industry will take tremendous strides in increasing production within a short time.

The world-wide airplane program will naturally increase the demand for high grade petroleum to enormous proportions, as the oil used for airplane propulsion is of a better quality than that used for automobiles. Although there are six million cars in use at present, it is expected that the airplane industry will develop more rapidly owing to the various advantages the airplane is expected to have over the automobile.

**FAIR AT ANN ARBOR.**

Washtenaw county will hold its first annual county fair at Ann Arbor on September 16-19. Liberal premiums are offered for practically all classes of exhibits. E. W. Martin, Ann Arbor, is secretary.

**COVER DEVICE FOR STRAINING.**

**E**RNEST Kelly, of the dairy division of the Department of Agriculture, has invented a useful method of covering the milk can while straining. This may readily be made on any farm. While the milk is being poured into the strainer the cover is raised by a



foot pedal. When the pedal is released the cover automatically drops back, serving as a protection against flies and dirt. When the can has been filled, the cover is placed on and set to one side, placing an empty under the device. An inch-sized board 12x24 will serve the purpose, while two twelve-inch springs, such as used on screen doors, will supply power.—E. W. G.

**ALL BRANCHES OF THE LEATHER TRADE ARE PROFITEERING.**

**T**HE Federal Trade Commission has found that the high price of shoes cannot be justified by underlying economic conditions. The commission, after exhaustive inquiry into the price of hides, leather and shoes, is reporting to congress that the larger packers control the hide supply and have taken excessive profits and passed increased costs to subsequent steps in manufacture and distribution; that the tanner has taken exceptional profits; that the manufacturer of shoes has taken unusual margins, and that the prices charged by the retailer are not justifiable, each factor in the industry adding to the burden he had to bear before he passed it on to the next.

**COMBAT CABBAGE DISEASES.**

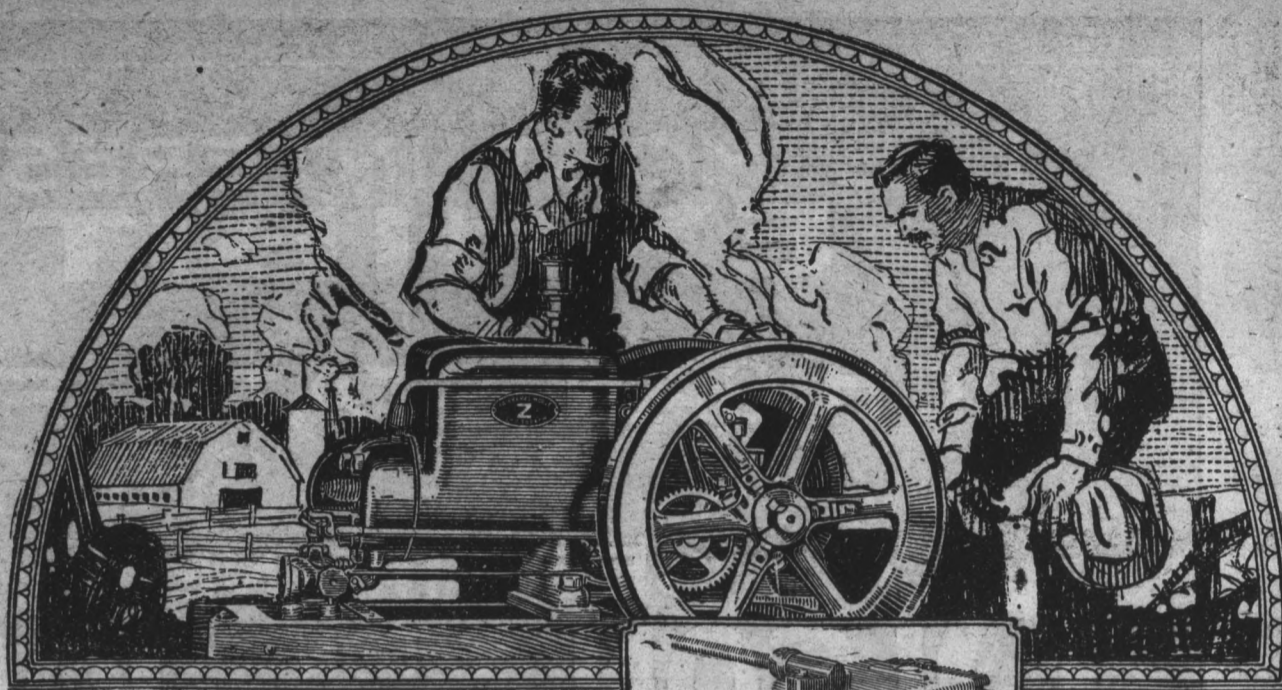
**W**OULD you spend a nickel to save five acres of cabbage? If you would, treat your seed next year, for less than five cents worth of poison will suffice to treat a pound of seed, which will grow cabbage plants enough to plant five acres of cabbage.

The poison to use in this treatment is corrosive sublimate, sold by druggists as bichloride of mercury tablets. Dissolve the poison in the proportion of one part to one thousand, or one gram of poison to one quart of water. The seed should be soaked in this solution for twenty minutes.

This solution should be made up in a stone jar or wooden pail, because it corrodes metals. Immediately after the seed has been treated, spread it on a clean cloth in a warm room to dry quickly. When thoroughly dry, return the seed to a clean sack, not the one that the seed was in before, for it still contains the spores of the diseases which were killed on the seed. It is a good idea to use sacks which were dipped in the solution.

Disinfecting the seed will do no good if it is planted in an infected soil. A field which has had infected cabbage on it the year before will still contain the disease-producing germs, which will re-infect even healthy plants. Therefore a clean seed bed is as essential as a clean lot of seed.

Every cent we pay out for feed for creatures that do not give it back in good, honest service, is so much toward the fare on the road to the poor house.



*Fairbanks-Morse  
"Z" Engine with  
Bosch Magneto*

# Farm Engine Supremacy

**T**HE famous "Z" Engine and the Bosch high tension, oscillating magneto combine to make the one SUPREME farm engine. The dependability of the Bosch in delivering a steady succession of hot, intensive sparks is well known and adds the one possible betterment to the "Z"—always recognized as America's foremost farm engine. Call on your "Z" Engine dealer and see the result of this newest combination—FAIRBANKS-MORSE "Z" WITH BOSCH MAGNETO. Over 200 Bosch Service Stations assist our dealers in delivering maximum engine service. Prices—1½ H. P., \$75.00—3 H. P., \$125.00—6 H. P., \$200.00—all F. O. B. Factory.

# Fairbanks, Morse & Co.

MANUFACTURERS CHICAGO

**CATTLE.**



**\$150,000 For Prizes,  
Publicity And Extension Service**

Breeders of Holsteins unanimously voted to quadruple the fees for recording transfers of their cattle sold, and spend the income therefrom to place the merits of this greatest of dairy breeds before the public. If interested in

**HOLSTEIN CATTLE**

Send for our booklets—and inform yourself on how to make money in breeding dairy cattle  
**THE HOLSTEIN FRIESIAN ASSOCIATION OF AMERICA** Box 164, Brattleboro, Vt.

**The Traverse Herd**

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

**TRAVERSE CITY STATE HOSPITAL**  
Traverse City, Mich.

**THE HOLSTEINS**

At Maple Avenue Stock Farm are under Government supervision. The entire herd have just been tuberculin tested and not one reactor. A good place to buy that bull you are looking for, and I have two very fine, richly bred, and splendid individuals ready for any amount of service. I want to answer any question you may ask about them.

**L. E. CONNELL**, Fayette, Ohio

**NO** more bull calves to offer until next fall. Place your order for one from next fall's crop. My herd is on the state and federal accredited herd list.  
**A. F. LOOMIS**, Owosso, 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.**

**"Winwood Herd"  
REGISTERED  
Holstein-Friesian Cattle  
Sire in Service  
FLINT MAPLECREST BOY**

His sire is Maplecrest Korndyke Hengerveld. His three nearest dams each over 30 lbs. of butter in 7 days. His dam and granddam both made over 122 lbs. of butter in one year. It is the yearly cow we are looking for to deliver the goods. Flint Maplecrest Boy's Dam is Gluck Vassar Bell, 30.57 lbs. of butter in 7 days and 121 lbs. in 30 days. Her butter fat test is 5.27. We have a few choice bull calves about ready for service and one or two ready. Remember we are breeders and not dealers in cattle. Our price is right, breeding considered. Write us your wants, or come and look this herd over before you buy, and see for yourself. You will be glad you came. Herd tuberculin tested.

**JOHN H. WINN, Inc.**  
Lock Box 249, Roscommon, Mich.  
Reference Roscommon State Bank.

**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.

**CLUNY STOCK FARM**

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

**LIGHT** colored Reg. Holstein Bull 15 mo. old. Sire breeder. 30 lb. Pontiac breeding. Priced to sell.  
**B. B. Reavey**, Akron, Michigan.

**A BULL CALF**

from a clean healthy herd where A. R. O. work is being done. The dam to have a 35 lbs. official record, and the sire preferably of Hengerveld breeding.  
**Serradella Farm, Oscoda, Mich.**

**REGISTERED** heifer and bull calves, of the best R. breeding in Holsteins for sale. Special price on 2 heifers and bull. **C. H. GIDDINGS**, Gobleville, Mich.

**BUTTER BRED JERSEY BULLS  
CRYSTAL SPRING STOCK FARM**

Silver Creek, Allegan County, Michigan.

**JERSEYS FOR SALE**

Two young cows due to freshen in Oct., one bred heifer or due to freshen in Dec., two heifer calves dropped last Dec. All are recorded or eligible. No bulls or bull calves at present. Will ship **C. O. D.** Newman's Stock Farm, Marlette, Mich. R. No. 1.

**Maple Lane R. of M. Jersey herd.** Bull and heifer calves sired by a nephew the new World's Champion. Sophie's Agnes. Also R. C. Red eggs and chicks.  
**IRVIN FOX**, Allegan, Mich.

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

**The Wildwood Jersey Farm.**

Bulls for sale by Majesty's Oxford Fox 13424 and Eminent Lady's Majesty 150894, and out of R. of M. Majesty dams.  
**ALVIN BALDEN**, Capac, Mich.

# THE MOST INTERESTING EXHIBIT

at the

## MICHIGAN STATE FAIR

Aug. 29<sup>th</sup> to Sept. 7<sup>th</sup>

### SEE THE NEW

# OLSON 2 TON TRUCK \$1095.<sup>00</sup>

*The lowest Priced 2 Ton Truck in the World - and the Ideal*

SPACE  
20-21  
AUTO BLD'G.

FARM  
TRUCK

SPACE  
20-21  
AUTO BLD'G.

**CATTLE**

**For Sale** Registered Jersey bulls ready for service and bull calves. SMITH & PARKER, R. 4, Howell, Mich.

## Herefords

20 cows and heifers for sale.

ALLEN BROS., Paw Paw, Mich.

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

**Herefords** Bob Fairfax 491027 at head of herd. Stock for sale, either sex, polled or horned, any age. Priced right. EARL C. MCCARTY, Sec'y, H. B. Ass'n, Bad Axe, Mich.

## Harwood's White Faces

Owing to labor shortage will sell one half my herd, consisting of 120 head of Reg. Herefords, yearling and two year old heifers, cows with calf at side, re-bred to ton bull. Ten short yearling bulls. Priced right for quick sale.

JAY HARWOOD, Ionia, Mich.

## BIDWELL SHORTHORNS

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

BIDWELL STOCK FARM  
Box B, Tecumseh, Mich.

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

## Richland Stock Farm

HOME OF THE MICH. CHAMPIONS. We offer for sale a few good dual purpose cows with calves at foot. Also two three year old bulls suitable for range purposes. We invite inspection. C. H. PRESCOTT & SONS, Office at Tawas City, Mich. Herds at Prescott, Mich.

**Shorthorns** Scotch and Scotch Topped cows and heifers, priced right. Come and see them or write W. B. McQUILLAN, R. 7, Howell, Mich.

**For Sale** Shorthorns of Quality Scotch and Scotch Topped descendants of Archers Hope, Avondale, Maxwellton Sulton and White Hall Sulton. Model Type, by the Oscola Co. Shorthorn Breeders Ass. John Schmidt, Sec. Reed City, Mich.

**Scotch Topped Cows For Sale.** Bred by the Mich. Agrl. College. M. V. Butler, Williamston, Mich.

**Shorthorns** New list, 27 bulls; 28 females. Feb. list all sold. Central Mich Shorthorn Breeders' Assn., Oscar Skinner, Sec'y., Gowen, Mich.

**The Kent Co. Shorthorn Breeders** have both males and females for sale. Ask about them. L. H. LEONARD Sec., Caledonia, Mich.

**Milking** Shorthorns of best Bates breeding and O. I. C. swine. Bulls for sale 1 mo. to 1 year old. E. H. KURTZ, Mason, Mich.

**Bates Shorthorns** Three extra fine cows for sale. J. B. Hummel, Mason, Mich.

**SHORTHORNS** A young Mary cow and calf also a young bull for sale. Louis Bubbitt, Williamston, Mich.

**Meadow Hills Shorthorns** - For sale females of all ages, including one aged cow at bargain; also one roan bull ready for service. Geo. D. Doster, Doster, Mich.

**MILKING SHORTHORNS** Clay bull calves. Davidson and Hall, Tecumseh, Mich.

**WANTED** to purchase two full blood registered Pole Durham Heifers of combined milking and beef strain, that will come in fresh next fall, address P. O. Box 317 Saginaw, Mich.

**HOGS**

Registered Berkshire Boars; ready for service. A few gilts and sows bred for May and June farrow. Also spring pigs. CHASE STOCK FARM, Marlette, Mich.

**Big Growthy Berkshire Pigs** Registered. W. H. Every, Manchester, Mich.

**Attention Breeders and Farmers** Now is the time to buy that Duroc Boar for fall service. We have some Corkers. March pigs will weigh 100 lbs. - July 1st. Inspection Solicited. Prices very reasonable. RUSH BROS., Oakwood Farm, Roméo, Michigan.

**DUROC JERSEYS** Fall pigs either sex also spring pigs pairs not akin. Sired by the Grand Champion and Junior Champion boars. E. J. DRODT, R. 1, Monroe, Mich.

## Duroc Opportunity

What would the earning capacity of a Brookwater Boar be in your herd? A mid-west breeder states that the Brookwater boar he used added from \$75 to \$100 to every gilt bred to him. It payed this man to use one of our boars it will pay you.

We have several that we are offering at prices which appeal to the small breeder who must of necessity be a conservative buyer. We have a few that are good enough to be used in high class herds at prices in keeping with their individuality and breeding. Money invested in a good herd boar very speedily increases the value not only of what you sell but what you keep. Send for price list or better, visit the farm.

**BROOKWATER FARM,** Ann Arbor, Mich. HERBERT W. MUMFORD, owner. J. BRUCE HENDERSON, Manager.

**DUROC SOWS** sired by Walt's King 92949, the sire of 1st. prize winners last year, and bred to Orion's Fancy King the real big type Duroc. NEWTON BARNEART, St. Johns, Mich.

## DUROC--JERSEYS

E. D. HEYDENBERK, Wayland, Mich.

### Registered Duroc Boars

We have a choice lot of spring boars, sired by Michigan Cherry Col. No. 13478. Ira Jackson selected this boar to head our herd. Our prices are within every farmer's reach. The Jennings Farms, Bailey, Mich., R.F.D. No. 1

## DUROC JERSEYS

CAREY U. EDMUNDS, Hastings, Mich.

**DUROC Jersey spring boars** sired by Orion Cherry King Col. 2nd, with size and feeding qualities. W. C. Taylor, Milan, Michigan.

**8734 Hampshires** recorded from Jan. 1 to Apr. 1, 19. Did you get one? Boar pigs only for sale now. JOHN W. SNYDER, R. 4, St. Johns, Mich.

## THE WORLD'S CHAMPION

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

**O. I. C.** One very choice 9 months old boar and 2 spring pigs sired by Prandell's Big Bone, (68928). Glenwood Stock Farm, Zeeland, Mich.

**O. I. C.'s.** Big type boars of April and May farrow. G. P. Andrews, Danville, Mich.

## Shadowland Farm

### O. I. C.'s

**Bred Gilt** 200 to 300 lbs. from prize winning stock. A few fall yearlings and 2-yr. old sows, big type, growthy boars of all ages, guaranteed as breeders. Everything shipped C. O. D. Express paid and registered in buyer's name. J. CARL JEWETT, Mason, Mich.

**O. I. C. For Sale - Spring Pig's** H. W. MANN, DANVILLE, MICHIGAN.

**O. I. C.'s.** Bred gilts all sold. Plenty of spring pigs good enough to ship C. O. D. F. C. BURGESS, R. 3, Mason, Mich.

**O. I. C.'s 2 Choice Yearlings** Boars and Spring pigs. Clover Leaf Stock Farm, R. 1, Monroe, Mich.


**O. I. C.'s** One very good yearling boar, and this spring pig to offer, registered free, 1/2 mile west of Depot. Citizens Phone 124. OTTO B. SCHULZE, Nashville, Mich.

**O. I. C.** Choice bred gilts due to farrow in Weber, Bros. Royal Oak. Phone 408.

**Big Type Poland Chinas** - A litter by Gerstdale Jones B(Carter); one by Gerstdale King (Gerst); and a nice bunch of pigs by Mammoth Ben 311959. The stretchy, growthy, smooth, well marked pigs we like to see. Boar pigs for sale. A Big Bob-Long Jumbo sow - a real one - bred to the Clansman for Sept. 3. Visitors welcome. WESLEY HILE, R. 6, Ionia, Michigan.

**O. I. C.'s.** One extra good fall boar and spring pig for sale. Stock registered free and guaranteed satisfactory. John O. Will, R. 2 Alma, Mich.

**For 25 Years** We have been breeding Big Type Poland China hogs of the most approved blood lines. Our new herd boar "Michigan Buster" is a mighty good son of the great "Giant Buster" dam "Mou's Miss Queen 2." Some breeding! Litter of 14. We are offering some sows bred for fall farrow. J. O. BUTLER, Portland, 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." S. S. BENJAMIN, R. F. D. 10, Portland, Michigan

**O. I. C. & Chester White Swine.** Strictly Big Type with Quality. Three yearling sows that raised 24 pigs last spring, bred for Oct. farrow. Will weigh from 350 to 400 lbs. Price, \$100 each. Also a choice lot of spring pigs. I will ship C. O. D. and record free. NEWMAN'S STOCK FARM, R. 1, Marlette, Mich.

**Ohio State Fair** 1st. premium big type Poland China yearling boar for sale. Write for pedigree and price. Lone Cedar Farm, Pontiac, Mich.

**LARGE Type P. O.** the largest in Mich. Spring boars now ready to ship. Boars for the breeders and boars for the farmers. Come and see the real large type with quality. Free livery from Parma furnished visitors. Look up my exhibit at the Great Jackson Co. Fair, Sept. 8th. to 12th, expenses paid if not as advertised. W. E. LIVINGSTON, Parma, Mich.

**Big Type Poland Chinas** with quality Pigs for sale by Robert R 534795, out of Upsome Matron 240346, and by Upsome Lad 90555, out of Eureka Giantess 241028. New herd header B's Bonanza Joe 100892, by Bower's Mammoth Joe 7441. G. A. BAUMGARDNER, R. 2, Middleville, Mich.

**L. S. P. C.** Boars all sold. A few nice gilts bred for fall farrow. H. O. SWARTZ, Schoolcraft, Michigan.

**MICH.** Champion herd of Big Type P. O. Nothing for sale but fall pigs; orders booked for spring pigs. E. R. LEONARD, St. Louis, Mich.

**Big Type P. O.** boars all sold. Nothing now until fall. B I thank my customers for their patronage. Spring pigs coming fine. O. E. Garnant, Eaton Rapids, Mich.

**L**arge Type P. C. Nothing for sale now. Will be in market with better than ever this fall. If herd stuff counts. W. J. HAGELSHAW, Augusta, Mich.

**Big Type P. C.** gilts, bred for August and September farrow. A. A. WOOD & SON, Saline, Mich.

**Big** Type P. C. Choice bred sows from Iowas greatest herds, the big bone prolific kind with size and quality. E. J. MATHEWSON, Burr Oak, Mich.

**Big** Type Poland's all sold out, nothing for sale at present. Booking orders for spring pigs. Thanking my customers. L. L. Chamberlain, Marcellus, Mich.

## Investigating Milk Costs

AFTER making an investigation of the cost of milk production and distribution in New York state, the Council of Farms and Markets has made a brief report, in which the contention of the producers with regard to the cost of producing milk is sustained, and it is asserted that improved distribution methods would mean a reduction in the cost.

It would appear, according to the report, that the average production per cow is gradually increasing and that some of the poorer producing cows are being eliminated. Thirty dairies from which complete data were furnished showed an average production of 6,628 pounds per cow. Other dairies investigated showed an average of 6,221.8 pounds per cow.

Evidence taken from dealers who were also producers showed that approximately sixty per cent of the consumers' price should go to the producer and forty per cent to the distributor; but in nearly all the cities the margin received by the dealer is much larger. The yearly average showed that the distributor received more than half of the consumers' price. The investigating committee found that in nearly every city there are too many dealers and duplication in routes—several wagons serving customers in the same block. In a large number of instances, dealers were handling from one hundred and fifty to two hundred quarts. At the hearings, however, experienced dealers testified that an efficient distribution would require the handling of at least three hundred quarts per wagon.

Statistics covering the cost of producing milk on thirty farms having a total of 524 cows, shows that it costs \$3.44 to produce one hundred pounds of 3.57 per cent fat, the average of the thirty dairies, or reduced to a three per cent basis, the cost per one hundred pounds of milk is \$3.212.

Records obtained from twenty-six distributors in several cities showed the cost of marketing milk to be 2.79 cents per quart.

It was found by the state investigators that producers generally were making very small profits and that some were only meeting expenses, while many were running their dairies at a loss.

The Dairymen's League announces that it sold the milk under its control for June at \$2.89 per one hundred pounds, testing three per cent butterfat and at the two-hundred mile zone from New York City. This was seventeen cents less than the price paid for May milk. The League officials report that the market for dairy products is good, and the new price plan agree-

ment by which the milk is sold each month does away with uncertainty by both farmers and dealers, and with much friction such as arose last year.

Reports that I am receiving indicate that farmers generally are taking advantage of the high prices for butcher cattle to get rid of their small-yield cows.

E. E. R.

### GRAIN CORPORATION LIMITS RETAILERS' MARGIN.

IN furtherance of the statement made following his recent conference with the President, that flour would be placed on the market at \$10 a barrel, Julius H. Barnes, United States wheat director, has wired the agents of the United States Grain Corporation authorizing them to make the following announcement in their zones:

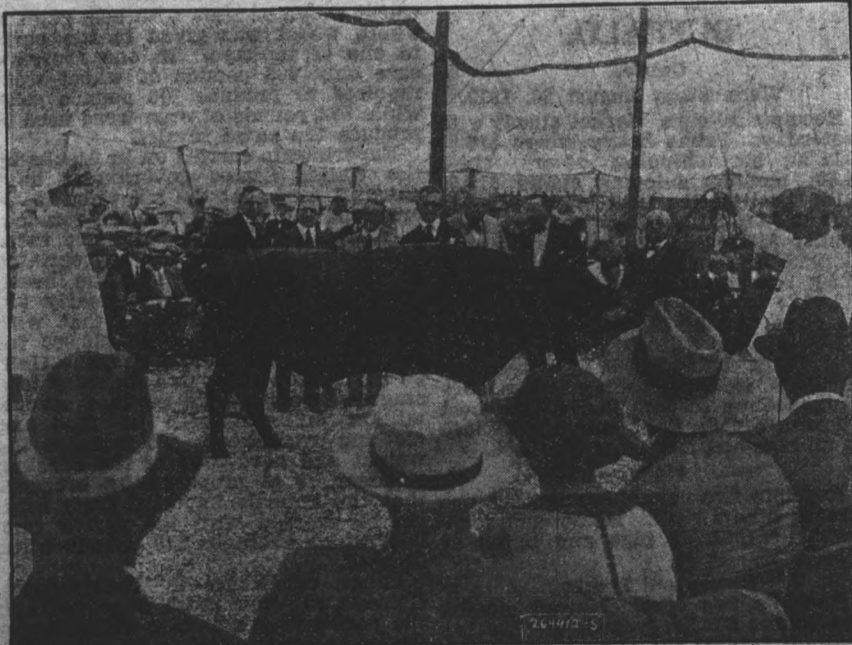
"The United States Grain Corporation is prepared to divert from its flour purchases and to sell and deliver to wholesalers and jobbers straight flour in 140-pound jute sacks on a basis of \$10.25 delivered in carload lots, in territory east of the Illinois and Indiana line and east of the Mississippi from Cairo to the Gulf, and at \$10 delivered in carload lots on track west of that line, but not applying to Pacific Coast territory.

"Jobbers and wholesalers who purchase such flour from the grain corporation are required to guarantee not to sell it at not more than seventy-five cents additional. Wholesalers and jobbers must in turn require that the retailer shall not sell at more than \$1.25 additional to the wholesale price in original packages and at a price not higher than seven cents a pound for broken packages of any size."

### LOST MONEY DURING WAR.

FOR five years farm survey records have been kept by the agricultural economics department, of all of the farms in Verona township in Dane county, Wisconsin. The results show the principal crops grown were corn, oats and hay; the principal products sold were milk, cattle and hogs. The incomes for the first three years, from 1913 to 1915, inclusive, were low, but in the main rose to a satisfactory level in 1916 and 1917.

The labor income of each of sixty farms shows a wide range, which is explained largely in the inherent differences in the ability and character of the farm operator. It is a startling fact that while some men are making good labor incomes, which have been increased under war conditions, a number have actually lost money, even under war conditions.



Sybil's Gamboge, Imported to this Country from the Island of Jersey, Sells to Senator Walkley, of Connecticut, at \$65,000, the Highest Price Ever Paid for a Jersey Bull.

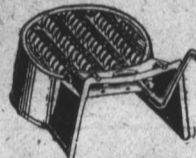
## Now is the Time to Put a Furnace Into Your Home

DON'T wait until next year or even next month before freeing yourself once and for ever from the disagreeable, annoying, unsanitary job of trying to heat your home with a stove. Install a *Gilt Edge* furnace and keep soot, grime and foul air out of your rooms. Now is the time to get it—manufacturing and shipping conditions may make another "month or so" too late. Even if your house was built with no idea of furnace heating, it can be successfully heated the *Gilt Edge* way, for the new *Gilt Edge Pipeless Furnace* can be installed in the smallest of cellars or even where there is no cellar at all and will make it unnecessary to cut into floors and walls to locate warm air pipes.

### GILT EDGE Pipeless Furnace

#### The Furnace with abundant air spaces

If a pipeless furnace best suits your needs, the *Gilt Edge* Pipeless is the one you want. You want it because it will stand up under years of service—because it will heat your rooms comfortably at low fuel cost—because it has many special features of advantage found in no other pipeless furnace. *It will do all any other pipeless furnace will do and more.*



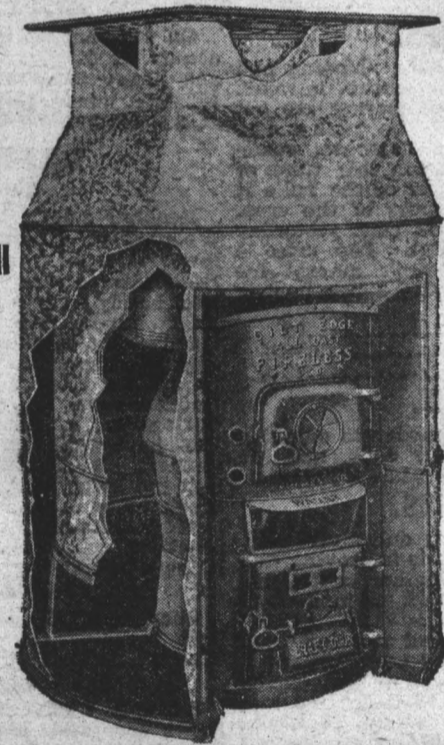
The *Gilt Edge* Anti-Clinker grate clears entire fire from ashes evenly and easily. Clinkers can't catch. Live coals can't be dumped accidentally.

The *Gilt Edge* is not skimmed at any point—there's a large enough space between the triple-wall inner casing and the heating to keep a big volume of heat going up into your rooms and a full five-inch air space between inner and outer casings to permit the free return of air so necessary for proper circulation and ventilation.

Write for our free booklet on pipeless heating and name of a dealer who will tell you more about *Gilt Edge* Furnaces.

R. J. Schwab & Sons Co.  
297 Clinton St. Milwaukee, Wis.

Easily installed  
Easy to tend  
Easy on fuel



Only one register needed  
Can't overheat cellar

### HOGS

**Mammoth** Poland Chinas all sold. General Jones No. 3E7249, son of Gerstdale Jones heads our herd. Clyde Weaver, Ceresco, Mich.

**BET P. C.** Some of the best males I ever raised. Two October Boreas extra good. April pigs weight 100 lbs. Price reasonable. JOHN D. WILEY, Schoolcraft, Mich.

Two gilts for sale, sired by C. A. King Joe. Dam is sired by Great Big Half Ton, by Big Half Ton and out of a Dishier's Giant Sow. (Breeding.) Bred to Monster Big Bob by Luken's Big Bob (same breeding as the Grand Champion of the World, Caldwell's Big Bob). A very valuable litter to possess. Fall pigs farrowing now. Book orders early. C. A. Boone, Blanchard, Mich.

### YORKSHIRES FOR SALE

Gilts bred for October farrowing. WATERMAN & WATERMAN, Meadowland Farm, Ann Arbor, Mich.

For Sale. Herd boar Gladstone Sensation. Fine type of Berkshire. Also a few of his pigs, both sex. Fairman Farms, Plymouth, Mich.

### SHEEP

#### Kope-Kon Farms Coldwater, Michigan

Will not exhibit at any Fair this fall. We are offering about 100 yearling rams and ram lambs better than ever and as good as you can buy. Order early, it always pays. Also bred ewes for Dec. delivery.

### BUY A SHEEP

Wait a minute, buy Hampshires. The American Hampshire Sheep Association wants to send you a dandy little booklet with list of breeders. Some near you. Write COMFORT A. TYLER, Secretary, 22 Wood and Ave., Detroit, Mich.

### HAMPSHIRE

One of the best bred flocks in America. Home of the International Champion ewe of 1918. Rams of all ages for sale. Write me your wants or come and see them. Harley R. Emmons, Elsie, Mich.

**Hampshires**, Registered Rams, all ages for sale. Bred for size, type, quality. Priced to sell. W. W. Caster, Ovid, Mich.

**Shropshires** Am offering 16 yearling rams and 8 yearling ewes of Senator Bibby breeding. C. J. THOMPSON, Rockford, Mich.

**For Sale** Three Registered Oxford Yearling Rams \$40 each. Reg. and Del. for quick sale. Don't wait. J. Robert Hicks, St. Johns, Mich.

**For Shropshire Yearling Rams** write or call on ARMSTRONG BROS., R. 3, Fowlerville, Mich.

**For Sale—Shropshire Rams** and Duroc Jersey Boars. Chas. Bray, Okemos, Mich.

**WANTED.** Sheep to double, two thousand acres of pasture land. Don M. Smith, Carran, Mich.

### HORSES

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

### BREEDERS OF PERCHERONS

Important, (Wt. 2550) Sire of one & two yr. olds. Sevier a ton son with 14 in. bone at two years in service. Mares as good. Young stock for sale. Chas. Osgood & Sons, Mendon, Michigan.

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



SECOND EDITION.

The markets in this edition were revised and corrected on Thursday afternoon, August 21.

**WHEAT.**

Wheat is in good demand and the market is firm and flour prices have advanced. At Detroit Wednesday receipts were two cars; six cars a year ago. Stocks 42,000 bushels, compared with 21,000 bushels a year ago. A year ago today No. 2 red wheat sold on the local market at \$2.22 a bushel. Today's prices are unchanged from last week, as follows:

No. 1 red	\$2.26 1/2
No. 1 mixed	2.24 1/2
No. 1 white	2.24 1/2

**CORN.**

Corn was inactive here Wednesday, and no change was made in the price because there was no business. In Chicago the market showed a slight tendency to advance. Cash corn was scarce and offerings from the country were rather light. Crop reports are showing great improvement and some states are figuring on the greatest crop in years. Weather conditions have been nearly perfect over the entire corn country for several weeks and fields that a short time ago did not promise to return the seed are now coming forward with fine prospects. A year ago the price for No. 3 corn was \$1.77 per bushel. Present prices are:

No. 3 corn	\$2.07
No. 3 yellow	2.10
No. 4 yellow	2.08
No. 5 yellow	2.03

**OATS.**

The demand for oats, shipping and local, is light and the market is weak. Conditions in the oat market are not considered bearish. The visible supply shows a heavy decrease, something very unusual for this time of year, but in the minds of the bulls it is proving the shortness of the crop. Old oats declined one cent yesterday over Tuesday's prices. The price a year ago in the Detroit market for standard oats was 72 1/2c per bushel. Today's prices are:

No. 2 white	79
No. 3 white	78 1/2
No. 4 white	77 1/2

**RYE.**

Rye has been in moderate shipping demand the past few days, and the price has dropped to \$1.54 a bushel.

**BEANS.**

Beans are generally dull and steady. In this state the crop is improving, due to more favorable weather conditions. At Detroit the quotation for immediate and prompt shipment is \$8.25. At Chicago offerings are small in volume and the prices are holding steady under a moderate inquiry, hand-picked, choice to fancy bringing \$8.75@9.25; red kidneys \$11.50@12. At New York the best Michigan pea beans are quoted at \$8.50; mediums \$7.

**HAY.**

The receipts of hay are not heavy enough to depress the market; consumers are active buyers, and a steady tone prevails, with quotations as follows: No. 1 timothy \$31@32; standard \$30@31; light mixed at \$29@31; No. 2 timothy \$29@30; No. 1 mixed \$27@28; No. 1 clover \$25@26.

Pittsburgh.—Hay receipts, while not heavy, are in excess of demand. Buyers are holding off, anticipating a lower market. No. 1 timothy \$36@37; No. 1 light mixed \$31.50@32.50; No. 1 clover mixed \$30@31; No. 1 clover at \$30@31.

**FEEDS.**

The feed market shows no change, despite the recent fluctuations in corn prices. Detroit quotations to jobbers are: Bran \$47; standard middlings \$56; fine middlings \$64; coarse corn meal \$81; cracked corn \$83; corn and oat chop \$63 per ton in 100-lb. sacks.

**POTATOES.**

The market for potatoes holds firm and receipts are not large. Demand is active for both local use and for shipping to outside points. The yield of early varieties did not come up to expectations, however, the crop is de-

veloping under improved weather conditions. Prices early this week at Detroit are: Ohio \$6 per 150-lb sack; New Jersey Cobblers \$6.60@6.65 per 150-lb. sack.

**BUTTER.**

Butter is firm and moderately active, though some uncertainty is felt among buyers, due to investigations in storage stocks. At Detroit fresh creamery is jobbing at 51 1/2c a pound. At New York the range for creameries is 52 1/2@57c. At Chicago the feeling is firm, with the better grades showing a slight advance, creamery extras bringing 53c; firsts 50@52 1/2c. Western creamery extras are quoted in Philadelphia at 56 1/2c.

**CHEESE.**

While production has been quite liberal this season, stocks are decreasing, and Canadian cheese has come on to the eastern markets. Buyers are inactive, awaiting the result of the investigations into the operations of the supposed hoarders of this product. At Detroit Michigan flats are steady at 31@31 1/2c; single daisies 33 1/2c; brick 35 1/2c. In New York state whole milk flats bring 30 1/2@31c; do average run 29 1/2@30c. On the Philadelphia market New York and Wisconsin full milk cheese is quoted at 31@33c.

**EGGS.**

There is nothing doing in the egg deal, which has been somewhat unsettled by official action. Detroit jobbers are paying 43c for fresh candled current receipts; do in new cases 43 1/2@44c; extra firsts, candled and graded in new cases 46 1/2@47 1/2c. In Chicago choice grades are in demand, 41@42c being paid for fresh firsts; ordinary firsts 36@37 1/2c. At New York the range for western white stock is 55@68c. The Philadelphia trade is paying \$15.60 per case for extra firsts, and do firsts \$14.40@15.

**DETROIT CITY MARKET**

Cabbage and tomatoes furnish the bulk of the offerings on the city markets this week, with tomatoes selling at sharp discounts from former values owing to the quick ripening of the crop. Cabbage 75c@1 per bushel; tomatoes, choice \$1.50 a bushel; small \$1.50; apples No. 1 \$2.50@3; No. 2 at \$1.50@2; beans, wax and green \$1.75@2.50; beets \$1@1.25; carrots at \$1.25@1.75; cucumbers 50c@1.50; dry onions \$2.25@2.50; huckleberries \$7.50@8; peaches \$2.50@3; plums \$3@4; potatoes \$2.50@3.00 per bushel; green corn 15@25c per dozen; live poultry 33c; springers 35c per pound.

**WOOL.**

The wool situation has been affected by the railroad strikes the past week which have hampered and even retarded trading. Prices remain firm, however, the lack of activity being considered only a temporary condition. Some accumulations of three-eighths-blood fleeces is noted and, though not burdensome, it makes this grade the weakest feature of the moment. Otherwise, fleeces are even stronger than territory wool, especially fine delaine and half-blood combing. The former is firm at 83@85c and half-blood at 81@82c. A considerable amount of half-blood combing has been sold during the week at 82c. Fine unwashed delaine is quiet, after having been sold freely hitherto. A basis of 70@72c is quoted for fine unwashed clothing, of which manufacturers have bought sparingly. Buyers have secured three-eighths-blood combing Ohio at 72c. Mixed three-eighths-blood and quarter-blood fleece, Kentucky clips, has been sold at 72@75c. Missouri quarter-blood has been sold at 68c. Ohio quarter-blood is held for 70c.

**GRAND RAPIDS**

The season's crop of honey is fully forty per cent of normal, due to the long drouth affecting blossoms and the forest fires which have raged extensively in best honey producing sections in western Michigan. Prices are near double those last year. No. 1 comb is 40 cents per pound. There will be a light seeding this fall and many farmers are discouraged over the fears of a light catch. Medium clover is \$32 per bushel retail, and scarce. Alsike is \$20 and very little alfalfa is in market. Little, if any, clover seed will be grown in this section of the state this season. Market gardeners have been hard hit in some lines of vegetables, especially head lettuce and celery, by the long dry spell. During the past week three carloads of Duchess apples were shipped daily. Orchardists report the crop a good one. Hauls were made in a forty-mile radius to this market. The crop of early potatoes is not sufficient to meet the demand of Grand Rapids market. At present it takes ten cars weekly to meet the deficiency. Prices prevailing the past week were: Potatoes, home-grown \$2.75 per bushel; Duchess apples \$1@1.25; hay \$25; plums \$2.50; osage melons \$3.50; Michigan peaches \$3.50; Michigan dry onions \$2.50; rye \$1.40.

**LIVE STOCK NEWS.**

Many farmers are pondering over the question whether it will pay to feed low grade wheat to hogs. Many fields proved disappointing after being threshed out, with a large percentage of shrunken kernels. Feeding wheat to hogs has been generally satisfactory, with the exception of the heavy swine nearly ready for marketing, these showing better gains on corn. Where pigs or stock hogs were fed, wheat was a success with best returns where wheat was given in ten parts to one of tankage. In one recorded case only 483 pounds of wheat were required to produce 100 pounds gain, while 582 pounds of corn were used to produce the same results.

Experiments carried on in Alaska by the United States government have demonstrated that the meat and leather producing capacity of the reindeer is extremely large. To start these herds the government appropriated \$307,000, and the return on the investment has mounted up to nearly \$2,300,000. Experts estimate that with an annual expenditure of \$30,000 for the next ten to fifteen years, the United States could lift this industry to a stage where it would produce several million dollars' worth of food and clothing every year. To increase the weight and hardihood of the Alaskan reindeer, it is proposed by breeders that the animals imported from Siberia be crossed with the native caribou, which averages 350 pounds when dressed.

Labor conditions in Packingtown, Chicago, are now much improved and the packers have been working larger forces and managing to keep up with the much reduced receipts of live stock, sheep receipts being liberal, while hogs and cattle were marketed sparingly for several days.

**Live Stock Market Service**

**Reports for Thursday, August 21st**

**BUFFALO.**

On our market here today pigs are steady at \$21@21.50, mixed; medium and heavy \$22@22.25; yorkers \$22.40@22.60; lambs \$18.75; calves higher at \$24@24.50.

**DETROIT**

**Cattle.**

Receipts 2,047. Market steady with Wednesday; general market is 50@51 lower than last week's close. Best heavy steers \$13.00@14.00. Best handy wt bu steers 10.00@11.50. Mixed steers and heifers 9.50@10.50. Handy light butchers 7.50@8.50. Light butchers 6.75@7.75. Best cows 9.00. Butcher cows 7.50@8.00. Cutters 6.50. Best heavy bulls 9.50. Canners 6.00@6.25. Bologna bulls 8.00@9.00. Stock bulls 7.00@8.00. Feeders 9.00@10.00. Stockers 7.00@8.50. Milkers and springers \$75@125.

**Veal Calves.**

Receipts 1,166. Market steady. Best \$22.00@23.00. Others 8.00@19.00.

**Sheep and Lambs.**

Receipts 3,823. Thin half-fat buck lambs very dull; others steady. Best lambs \$16.00@17.00. Fair lambs 13.50@15.00. Light to common 11.00@12.50. Fair to good sheep 8.50@9.00. Culls 4.00@6.00.

**Hogs.**

Receipts 2,871. Pigs steady; mixed hogs 25c higher. Pigs 20.00. Mixed 21@21.25.

**CHICAGO.**

**Hogs.**

Estimated receipts today are 13,000; holdover 3,676. Market fully 25@50c higher; mostly 40@50c higher. Tops \$21.45; heavy 250 lbs up medium, good and choice \$18.85@21.25; medium 200 to 250 lbs, medium, good and choice \$19@21.45; light 150 to 200 lbs, common, medium, good and choice \$19.10@21.45; light lights 130 to 150 lbs, common, medium, good and choice at \$18.50@21; heavy packing sows 250 lbs up smooth \$18@18.75; packing sows 200 lbs up, rough \$17@17.75; pigs 130 lbs down, medium, good and choice \$17.50@19.

**Cattle.**

Estimated receipts today are 9,500; market mostly 25c higher; calves and feeders steady. Beef steers, medium and heavy weight 1100 lbs up, choice and prime \$16.35@18.75; do medium

and good \$12.75@16.35; do common at \$10.25@12.75; light weight 1100 lbs down, good and choice \$14.25@18.25; do common and medium \$9.75@14.25; butcher cattle, heifers, common, medium, good and choice \$7.50@15; cows common, medium, good and choice at \$7.50@13.75; bulls, bologna and beef \$7.50@12.75; canners and cutters, cows and heifers \$6.25@7.50; do canner str \$6.50@9.55; veal calves, light and handyweight medium, good and choice \$19.50@21; feeder steers common, medium, good and choice \$8@13.75; stocker steers, common, medium, good and choice \$7.25@11; stocker cows and heifers, common, medium, good and choice \$7@8.75; stocker calves, common, medium, good and choice \$8@11.25; western range cattle, beef str medium, good and choice at \$11.25@16.50; do cows and heifers, medium, good and choice \$9@13.

**Sheep and Lambs.**

Estimated receipts today are 29,000. Market mostly 25c lower than yesterday's close. Lambs 84 lbs down, medium, good, choice and prime \$14.75@18; do culls and common \$10@14.25; feeder lambs medium, good and choice \$13.25@15.25; spring lambs, medium, good and choice \$10.50@13; ewes, medium, good and choice \$7.55@9.50; ewes cull and common \$3@7.25; breeding ewes, full mouths to yearlings at \$8.50@14.75.

**BUFFALO.**

**Cattle.**

Wednesday, August 20, 1919.

Receipts 10 cars. Market steady with yesterday. Prime heavy steers \$16.50@17.50; best shipping steers \$14@14.50; medium shipping steers \$12.50@13; best native yearlings, 950 to 1000 lbs \$15@16; light yearlings, good quality \$13.50@14.50; best handy str \$13@13.50; fair to good kind at \$10@11.50; handy steers and heifers, mixed \$12@13; western heifers \$11@12; best fat cows \$10.50@11; butchering cows \$8@9; cutters \$6.50@7; canners at \$5@6; fancy bulls \$10@11; butchering bulls \$7@8; best feeding steers \$9@9.50; medium feeders \$7.50@8.50; best stockers \$7@8; light common \$6.50@7; milkers and springers \$75@150.

**Hogs.**

Receipts five cars. Light grades are strong; others slow. Heavy and yorkers \$21.50@21.75; pigs and lights at \$22@22.25.

**Sheep and Lambs.**

Receipts two cars. Market steady. Top lambs \$18.25; yearlings \$12@14; wethers \$11@11.50; ewes \$9.50@10.50.

**Calves.**

Market steady; tops \$24; grass calves \$8@11.50.

NEW YORK PRODUCE MARKET.

Butter.—During the week there has been a considerable agitation of high food prices and the district attorney has subpoenaed practically every receiver of butter who holds and quantity in stock in order to determine whether or not there has been undue hoarding of butter. As a result of the two conditions cited, the prices fell more than conditions really would warrant. The receipts of butter continue to be on the decline and the percentage of high quality butter that is being received is very low. If it had not been for the agitation mentioned above, prices would have increased very materially. There has been a considerable delay in the delivery of stocks during the week because of embargoes placed on shipments of butter at some points in the west when it looked that there would be a tie-up on the railroads because of a strike among the shopmen. As a result, there was a considerable shortage of butter during the middle of the week. However, the delayed shipments began to arrive and prevented a serious shortage. On last week Saturday, the market became very weak because of the strong pressure to sell and the lack of buyers, the price fell one cent. The weakness was temporary and on Tuesday the price recovered half a cent. There was no further change in the market until Friday when, because of the marked buying activity and shortage of high quality butter the price advanced a half cent and the market closed very firm and with indications that there would be a further advance in the very near future. The long spell of hot weather in the middle west has caused a great deterioration in the quality of butter being received. Many of the finest marks are now graded as low as a low first. Established quotations at the close on Friday were as follows: Extras 54½¢; higher scoring than extras 55½¢; firsts 52½¢@54¢; seconds 50@52¢.

Cheese.—The past week has been a decidedly poor one in the cheese market. The export demand has been very moderate and has been supplied by Canadian cheese which has been arriving quite freely and which can be sold at a profit much below the initial cost of our domestic cheese. Speculative buying has been curtailed by the prevailing agitations against hoarding of food supplies. Buyers are taking only enough for their wants from day to day. That there is no optimistic feeling in regard to the future of cheese is shown by the fact that some dealers are selling fancy June make at a loss of 1½¢@2¢. At the close the market is weak and unsettled and unless some factor enters to change the general situation, we will see a further decline in price. At the close on Friday established quotations were as follows: Common to good 26@28½¢; average run 29½¢@30¢; specials 30@½¢@31¢ a pound.

Eggs.—Egg receipts have decreased about 25,000 cases during the past week. The receipts have been just about sufficient to meet the demand, as less than 5,000 cases were drawn from storage within the week to supply the trade. There has been practically no reduction in the accumulation of medium and under-grade stock that has been burdening the market for some time. The quality of the eggs being received is slightly improved but the majority of stocks at the present time is in bad condition. The general condition of the market is not satisfactory. High quality eggs are very scarce and are in demand. Established quotations at the close on Friday were as follows: Seconds 42@45¢ per dozen; firsts 46@49¢; extra firsts 50@53¢; extras 54@55¢.

Poultry.—Receipts during the week have been somewhat lighter than was expected and the market has gained strength. The demand at present seems to be particularly for heavy fowls. Trade has continued active and all classes of poultry have cleaned up well. Established quotations are as follows: Spring chickens 37@40¢; fowls 34@35¢; old roosters 22¢; ducks 30¢; geese 20¢.

LULL IN BUYING HITS BOSTON WOOL.

RAILROAD embargoes following the strike have interfered with local wool trading this week. Certain leading concerns have got around the difficulty to some extent by shipping wool to their mills by motor trucks. One such truck with a trailer was noted the other day with a load weighing upward of five tons. For moderate hauls, in good weather and under

favorable road conditions, this is not only feasible but profitable. It is suggested that the increasing movement of wool to the mills in this manner is partly responsible for the growing discrepancy in receipts and shipments of wool as shown by the Boston Chamber of Commerce figures.

Shipments of wool for the week up to August 13 are as follows:

	Pounds.
Boston and Albany .....	454,007
New Haven .....	893,000

Total .....1,347,007  
Shipments during the previous week 2,630,000; same week in 1918, 2,363,544.

Shipments thus far this year, 84,755,134. Shipments same period in 1918, 131,257,239.

Veterinary.

Elbow Tumor.—I have a driving mare that is troubled with a shoe-boil or capped elbow. It opened and discharged pus for a while, but wound is now nearly healed. What can be done to reduce the bunch? C. P., Romeo, Mich.—Dissolve ¼ lb acetate of lead, 3 ozs. of sulphate of zinc, 3 ozs. of tannic acid in one gallon of cold water and wet elbow four or five times a day. Perhaps you know what is causing all this trouble, if so remove the cause and it will help to reduce bunch. When cool weather comes you can have bunch cut out.

Cow Has Sore Teats.—Barrenness.—One of my cows seems to be troubled with sore teats and I wish you would tell me what to apply. I have three young heifers that come in heat every two weeks; we breed them to our herd bull, but they fail to get with calf. T. Z., Peawek, Mich.—Apply equal parts of glycerine and compound tincture benzoin to cracks once a day. Carbolyzed vaseline is another useful remedy for chapped teats. I am inclined to believe that your heifers suffer from a cystic condition of the ovaries and your heifers need the attention of a skillful veterinarian to crush their ovaries. After this work is done the heifers may perhaps get with calf.

Bruised Fetlock Joint.—Some two months ago my colt hurt her leg and since then the fetlock joint has been enlarged and I have applied different remedies, none have done the leg any good. F. E., Ravna, Mich.—Apply one part tincture iodine and two parts camphorated oil to thickened leg once a day. Hand-rub the joint twice a day.

Chronic Stifle Ailment.—For about 12 months my two-year-old colt has had a puffy swelling of both stifle joints. When he walks you can hear a sort of grating of the cap and our local veterinarian says he is incurable. What line of treatment do you advise? C. B., Bitely, Mich.—You will obtain fairly satisfactory results by the persistent application of equal parts of tincture of iodine and spirits of camphor. These applications should be made daily, and I might add that hand-rubbing will give good results. The writer has obtained good results from blistering with one part powdered cantharides and five parts of fresh lard every ten or fifteen days.

Cattle Are Troubled with Lice.—I would like to have you tell me how to kill lice on cattle. Some of my calves are in bad shape on account of being lousy. Have applied coal-tar disinfectant, then in two days applied chicken lice powder but it fails to kill them, especially where the powder drops off. I thought the powder killed more than the coal tar. F. T. G., Homer, Mich.—First of all let me say, we have three species of cattle lice, two of the sucking lice, and one a short-nosed cattle louse, another a long-nosed cattle louse. These are commonly called blue lice, and one biting louse, commonly called red lice. Cattle lice reproduce by means of eggs or nits, which they fasten to the hair. If you will mix one-half pint of kerosene in one pound of lard and smear it on the lousy parts of your cattle it will kill the lice. Coal tar disinfectant will kill lice, but perhaps you failed to apply it often enough, or your solution might have been too weak. If you stable your cattle, spray stalls and walls with kerosene, or apply fresh lime wash.

You need not expect big-framed hogs from starved pigs. They must be pushed from the time they are able to eat until the finish, and on bone-producing feed if you want strong animals.

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Roysters pushes my crops ahead at least 15 days. E. B. Norman, Kenton, O.

Have used Roysters for several years; find my bank account in better shape each year. John Kilpatrick, Newton, Pa.

I get at least \$5.00 for every dollar invested in your fertilizer. L. S. Malcolm, Kenova, W. Va.

I used Roysters on wheat and averaged 30 bushels on fallow ground. J. R. H. Price, Middleton, Va.

Have used Roysters 3 years. Last year my wheat yielded 37 bushels per acre. C. B. De Witt, Bradford, N. Y.

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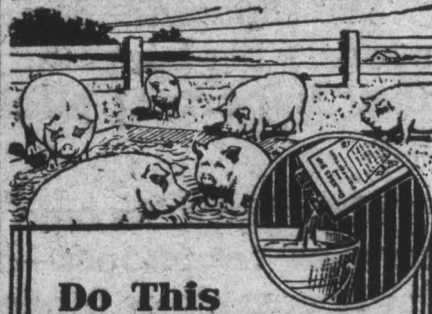
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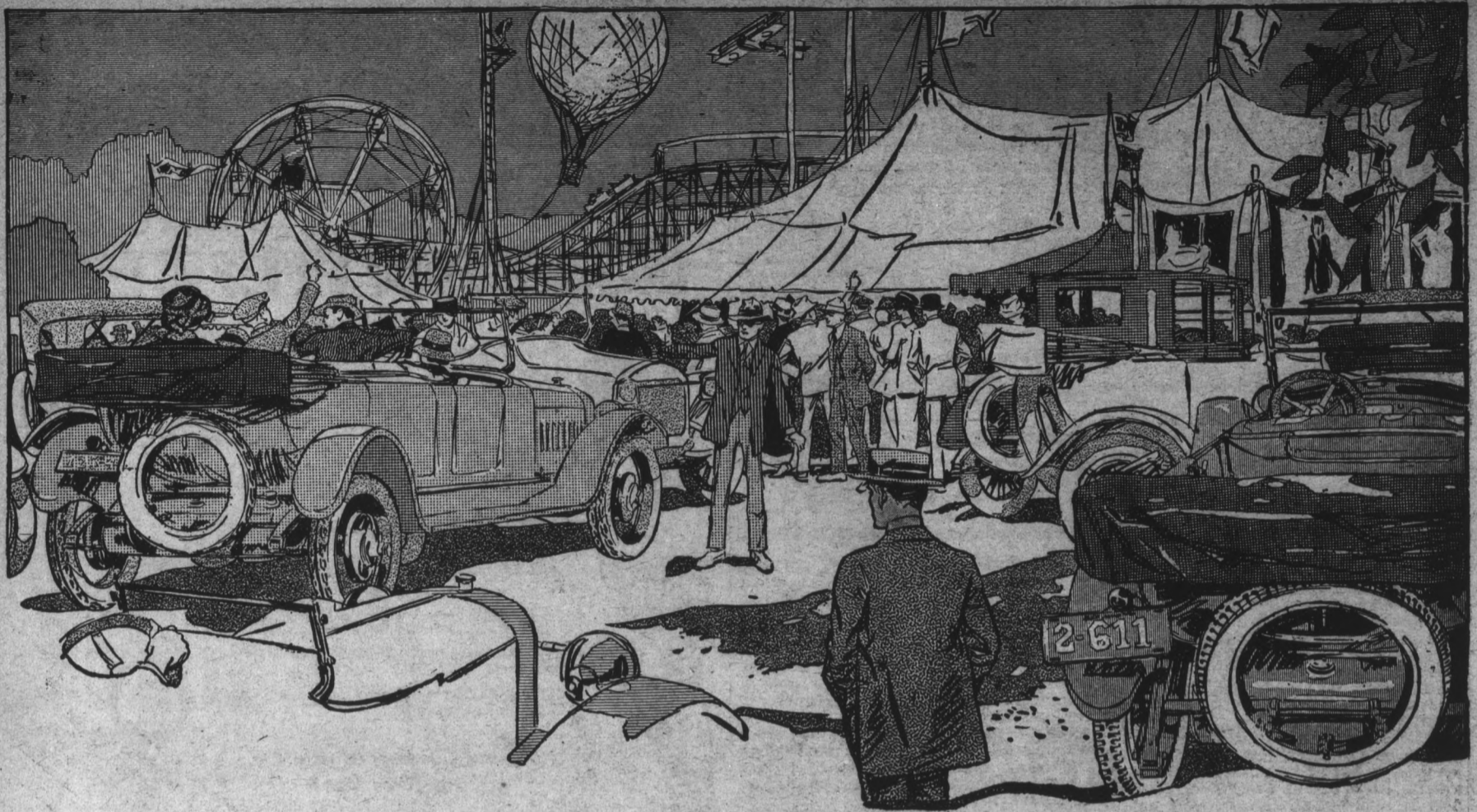
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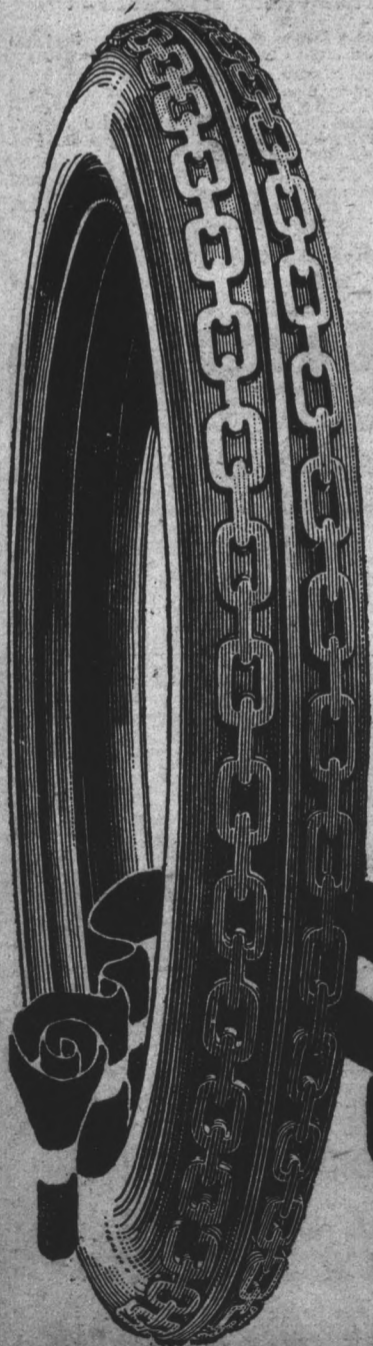
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