

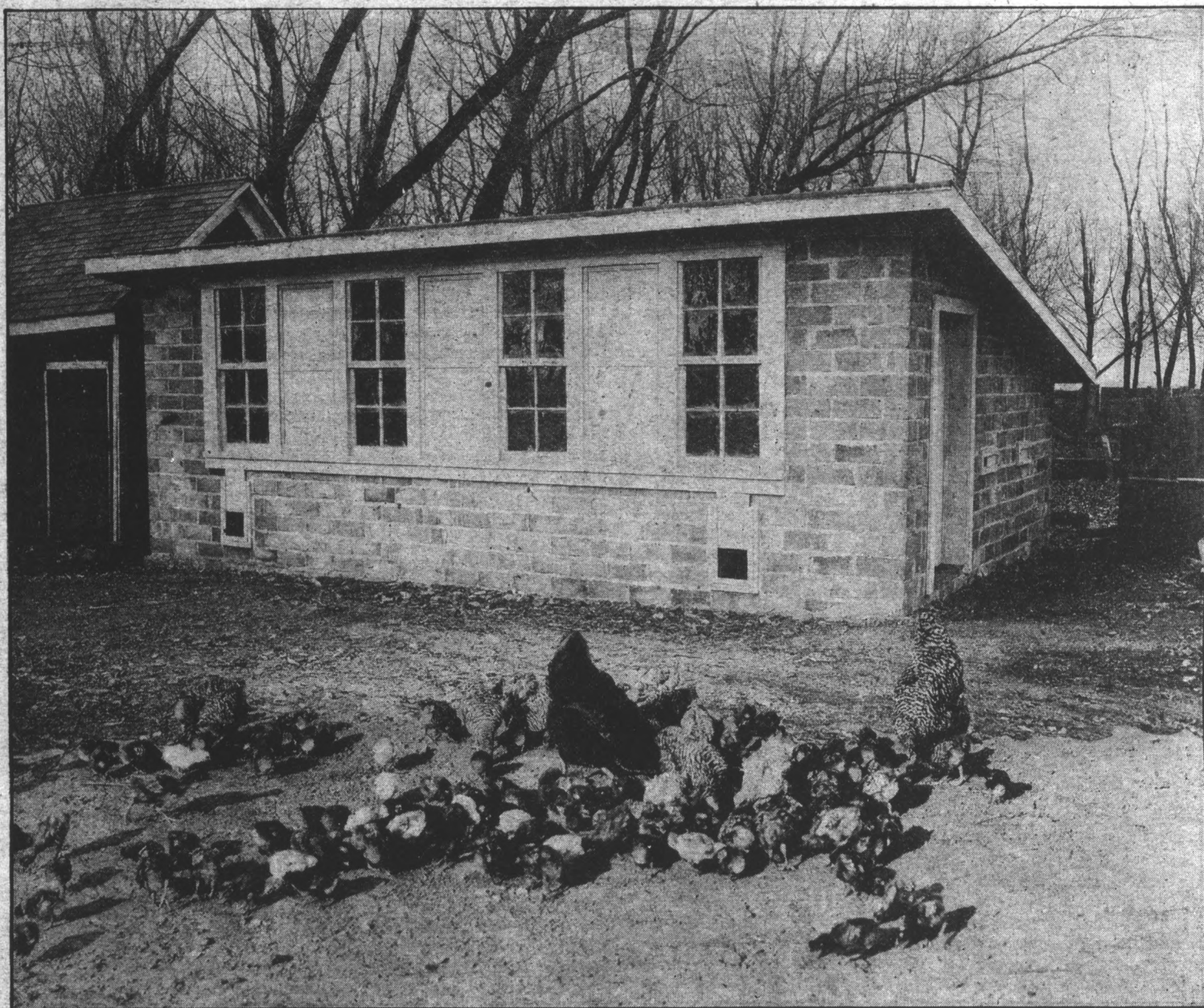
# MICHIGAN FARMER

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## Spotting the Layers

**T**HE average person should not try the impossible, and it is impossible for the ordinary farmer, as well as the most skillful poultryman, to succeed with hens which lack the capacity or ability for egg production. Slacker hens fed the most practically prepared feeds, housed in the best quarters and given queenly care, have not the remotest idea of gratitude for they simply will not produce eggs under the most persistent urging. Laying birds are just as necessary to the successful poultry venture as are good seeds to the enterprising gardener. Having the producing kind, then, the actual efficiency in egg production rests with the person operating the machinery.

The man or woman who looks to the poultry department of the farm for its proportionate contribution to the farm income

naturally asks, "Can the layers be separated from the slackers?" The economy of such a practice goes unchallenged but the average farmer is concerned about the practical phases involved. The poultry specialist may have known for many years that the non-layer could be spotted without the use of the trap nest, but the average keeper of fowls has not been acquainted with the practice until very recently, and although much has been written upon the question and many demonstrations by extension men have been given, it appears that the greatest progress in spreading the gospel of poultry culling has been made in those communities where the boys and girls have formed poultry clubs. When culling becomes common the poultry business will enter a new economic era.



## The Michigan Farmer

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DETROIT, OCTOBER 16, 1920

### CURRENT COMMENT

#### Amending the Constitution

IT is a matter of great importance to the welfare of the state that every voter give careful attention to all proposed amendments to the constitution of the state which are submitted to them at any general election. This has always been important, but is more important than ever, since the application of the initiative in the submission of proposed amendments to the fundamental law laid down for state government, since the text of proposed amendments may be written by anybody with sufficient following to secure the required number of signatures to a petition for its submission, and in case the interest of the voters is not general, a comparatively small rate may secure the adoption of important amendments to the constitution, the letter or spirit of which may not be in accord with the views of a majority of the voters of the state. Every progressive step in the development of popular government carries with it added responsibility and duty for the citizen, which the great body of good citizens must recognize and discharge if such progress is to be real and beneficial, rather than apparent and of doubtful benefit if not actually harmful. The matter of constitutional amendments is no exception to this general rule. In fact, it is probably its most important application. For this reason we are, as has been our rule in the past, publishing the proposed constitutional amendments to be submitted to the electors at the coming November election, with such explanations as seem to make their meaning clear, and urge every voter to express his approval or disapproval of them on election day. There are five proposed amendments to be submitted as follows:

The proposed amendment to Section 21 of Article VI of the Constitution is as follows:

"Section 21. The governor and attorney-general shall each receive an annual salary of five thousand dollars. The secretary of state, state treasurer and auditor-general shall each receive such annual salary as may be prescribed by law. They shall receive no fees or perquisites whatever for the performance of any duties connected with the office."

This proposed amendment, if adopted, will authorize and empower the legislature to fix the compensation of certain state officers as indicated in the text.

The proposed amendment to Section 1 of Article III of the Constitution:

The text of this proposed amendment is long and its meaning simple, for which reason it is omitted. Its ef-

fect, if adopted, will be to extend the absent voters' privileges to teachers in the public schools and the immediate family of any member of the legislature during sessions of the legislature.

The proposed amendment to Section 29, of Article V of the Constitution is as follows:

"Section 29. The legislature shall have power to enact laws relative to the hours and conditions under which men, women and children may be employed."

This proposed amendment, if adopted, will empower the legislature to enact laws relative to the hours and conditions under which men as well as women and children may be employed.

The proposed amendment to Article XIII of the Constitution is as follows:

"Section 5. Subject to this Constitution the legislature may authorize municipalities, subject to reasonable limitations, to condemn and to take the fee to more land and property than is needed in the acquiring, opening and widening of parks, boulevards, public places, streets, alleys, or for any public use, and after so much of the land and property has been appropriated for any such needed public purpose, the remainder may be sold or leased with or without such restrictions as may be appropriate to the improvement made. Bonds may be issued to supply the funds to pay in whole or in part for the excess property so appropriated, but such bonds shall be a lien only on the property so acquired and they shall not be included in any limitation of the bonded indebtedness of such municipality."

This proposed amendment, if adopted, will empower the legislature to authorize municipalities to condemn more land than is necessary for parks, boulevards, etc., and to issue bonds therefor.

The proposed amendment to Article XI of the Constitution is as follows:

"Section 16. All residents of the state of Michigan, between the ages of five years and sixteen years, shall attend the public school in their respective districts until they have graduated from the eighth grade; Provided, that in districts where the grades do not reach the eighth, then all persons herein described in such district shall complete the course taught therein."

"Section 17. The legislature shall enact all necessary legislation to render section sixteen effective."

The effect of this proposed amendment, if adopted, will be to compel all residents of the state of Michigan between the ages of five years and sixteen years to attend the public schools

in their respective districts until they have graduated from the eighth grade, and to require the legislature to enact legislation rendering effective the provisions contained in section sixteen.

While this amendment, sometimes referred to as the parochial school amendment, is aimed at a single class of privately supported schools, its practical effect would be to abolish all schools teaching these grades which are supported by private capital or contribution, and make it necessary to at once expand the public schools to care for all pupils in these grades.

#### Cow Tests for Small Breeders

A CAREFUL study of the methods of conducting semi-official yearly cow-testing work as practiced by the breeders of pure-bred dairy cattle, as well as the methods of conducting local cow-testing associations cannot fail to impress the thoughtful student of breeding problems that action could profitably be taken to put the local cow-testing association work on some basis where by the yearly records made under the supervision of the local tester might be given credit by the various breed associations of the country. As we understand the matter it is purely a question for the state authorities to determine.

There is no denying the fact that there are several difficulties to overcome, such as securing more competent men to handle the work, and putting the general work under more strict supervision of state dairy authorities. One of the advantages of such a system of conducting cow-testing work would be the fact that it would encourage more breeders of dairy cattle to keep accurate production records and exercise greater care in the selection and mating of breeding stock. Under the present system of conducting seven-day, thirty-day and semi-official yearly tests the breeder who has only a few cows hesitates about taking up testing work because of the expense of conducting short tests and conditioning his cows for the supreme trial. As a result when he offers his animals for sale one or two generations of untested dams makes a break in the pedigree which tends to lower prices. Buyers from outside states seldom pay

liberal prices for individuals from untested dams or granddams, no matter how much quality they may show. In a few instances animals from untested dams and granddams may sell for comparatively high prices, but even then the purchases result from production records made from some close-up relative in a herd where testing work has been conducted for a number of generations. Considered from every angle the small breeder cannot afford to overlook testing work during the formative period of herd development, and yet the present system of conducting the work makes the expense of testing greater than he feels he can afford.

Local cow-testing associations have succeeded because they were conducted on more democratic principles. The seven-day, thirty-day and semi-official yearly testing work has succeeded because it has been supported by men of means who have capitalized on the results through the sale of breeding animals to small breeders and farmers who needed these tested individuals to carry on their work of improvement. If the work of these two agencies could be correlated and put on a more democratic basis so that every constructive breeder of dairy cattle and every progressive dairy farmer would profit from the records made by some of the best cows in their herds great progress in breed improvement would result, and fewer pure-bred scrubs would be perpetuated in our dairy herds.

### News of the Week

Wednesday, October 6.

AN agreement is reached for the signing of an armistice between the Russian and Polish delegations at the peace conference at Riga.—A special police auxiliary is being organized in Detroit to aid in the suppression of crime.—Forest fires are raging in sections of northern Wisconsin.—Anti-suffragists carry their fight against the woman suffrage amendment to the United States Supreme Court.—Anthracite coal miners request President Wilson to reopen the anthracite wage scale.

Thursday, October 7.

GUIDING ships into the New York harbor by a submerged electrically charged channel cable is successfully demonstrated.—A heavy cut in sugar prices is reported from Boston refineries.—The Poles and Russian forces will cease fighting Friday under an armistice just signed.—Japanese welcome delegates to the world Sunday School convention which opens at Tokio.—Lack of buying continues to further depress the English wool market.—Governor Sproul, of Pennsylvania, is urging rehabilitation of old canals.

Friday, October 8.

AMERICAN railroads establish a new record in the week ending September 25, by handling 994,687 cars.—Prices for meat in France have become so high that consumption is greatly curtailed.—The currency committee of the International Financial Conference in session at Brussels reports against the proposal for an international currency.—It is expected that Secretary of Agriculture Meredith will be asked to investigate charges of manipulation of the wheat market.

Saturday, October 9.

THE United States District Court orders the dissolution of interlocking interests of a number of railroads entering Philadelphia.—Attempts to dispose of the fleet of wooden vessels owned by the government prove unsuccessful.—Reductions in coal prices may be expected soon, according to the American Wholesale Coal Dealers' Association.—Japan's trade for the past nine months has shown an unfavorable balance.—The new census figures will probably add fifty new members to the federal congress.—Germany's deficit is now calculated at 67,000,000,000 marks.

Sunday, October 10.

GREECE holds her first post-war election on Sunday, November 7.—Italian employers and workmen have reached a formal agreement and the government has begun to force order.—Australia is building a new national capitol at Canberra, a federal district between New South Wales and Victoria.—Lack of funds threatens to

## Live Stock Marketing

THE outcome of the conference of representatives of various farmers' live stock organizations held at Chicago on October 8, was the recommendation that the chairman of the meeting, J. R. Howard, president of the American Farm Bureau Federation, appoint a "Committee of Fifteen" representatives of these organizations to investigate live stock marketing problems and report to a later conference to be called by Mr. Howard.

The real keynote speech of the meeting came in the middle of the program when H. W. Mumford, director of live stock marketing for the Illinois Agricultural Association, discussed live stock problems. He declared that the leading problems were:

1. Stabilization of live stock markets and the elimination of disastrous breaks.
2. Maintaining a market based primarily upon the cost of feeds used in the production of live stock during the period of production.
3. The lack of a proper relation between the price which the producer receives and the consumer pays.

Mr. Mumford declared himself in favor of maintaining the centralized markets, as the proper means of meeting organized buying power with an organized selling power representing the producer; the establishment of an ade-

quate foreign and domestic live stock reporting service; encouraging the development of cooperative live stock shipping associations and the formation at each large market of a cooperative stock commission company.

W. F. Callander, representing the United States Bureau of Crop Estimates, described the plan now being tried in Ohio of learning the trend of production and probable receipts of live stock at markets. A certain number of representative farmers are asked to report upon changes on their farms during the month, including the number of live stock, births, deaths, sales, the number expected to be sold during the coming three months for meat, for breeding, for milk production as stockers and feeders; the number of stockers and feeders to be purchased and the number of animals bred. Mr. Callander advocated a rather complete live stock census once a year, using the monthly reports from representative farmers to keep track of the changes in between. He does not favor the quarterly plan used by some farm bureaus because it furnishes no advance information when the end of the quarter is reached, whereas the monthly plan furnishes a forecast which is always two or three months ahead. A complete census every month

(Continued on page 499).



# Why the Cow Testing Association?



Lily—The High Cow, Produced 456 Pounds of Butter-fat.

*Here is Convincing Evidence Offered by Roswell Carr, Kent County Agent*



Lila—The Low Cow, Produced 248 Pounds of Butter-fat.

THE object of the Cow-Testing Association exhibit put on at the West Michigan State Fair this year by the Kent County Cow-Testing Association, was to demonstrate to the people that the statement so frequently made that no one can tell by the looks of a cow what she will produce, is true. The exhibit proved this point beyond any question of a doubt. Frequently these exhibits, while having this same thing in mind have some conditions which must be overlooked in reaching conclusions. There were, however, in this case, no holes in the program. All of the information was given to the public except the records, and the conditions under which the animals operated were identical. No trickery was employed. If it were possible to tell a bum cow by her looks here was the opportunity and yet it could not be done and the Kent County Cow-Testing Association has the proof in the office of the County Farm Bureau to back up these statements.

In the first place, let us look at this herd. A man by the name of Lynn Bradford, of Sparta, went out and bought some cows to start a herd with and then put them in the cow-testing association. He found out what he could about the breeding of the cows but that was very little. They were grade Holsteins. They proved to be a good average bunch of cows with the exception of one which was way below the average of the herd. Five out of eight of these cows were brought to the fair. These five were straight-backed, deep-bodied, you might almost say show cows, one of them being the highest producer in the whole association, three others being next to the top and one being very low. Following are their records made in the cow-testing association covering a period of one year.

It will be understood that these records all started on the same day. The four high cows were winter cows and the low cow freshened in May. Some might argue that under these conditions the low cow did not have the

chance that the others had and we would agree if she had done anything when she was fresh, but she produced during her first month only forty-one pounds of butter-fat and the other four cows produced 38.5, 31.6, 34.4 and 34.3 during that same month after having been giving milk for five and six months. So that while we might figure that a spring cow does not have quite the chance of a big yearly record that a fall or winter cow has, at the same time she should do something during her first month or two at least when she freshened in the spring. These cows all freshened regularly so that in that respect none was at a disadvantage. They were all kept in the same barn and fed alike. They were practically the same age. The high one and the low one were born the same year. These cows were placed in the

## Here Are the Records.

	No. Lbs. Milk.	No. Lbs. Butter-fat.	Income Above Cost of Feed.
Lily .....	9,283	456.1	\$177.18
Lula .....	10,362	420.9	157.02
Lucy .....	10,469	418.6	160.08
Lena .....	8,426	391.6	148.68
Lila .....	6,024	248.5	50.85

exhibit to make it just as easy as possible for the people to guess which one was the poor producer. The high cow and the low cow were placed in the same stall and in the middle of the string. Signs were placed up in front of the cows explaining the whole proposition and asking the people to pass judgment on the cows. Furthermore, each one who wanted to place the animals was given a card on which he was asked to place the cows in the order in which he thought they would produce during the year. After he had filled out his card and turned it in he was shown the records of the cows which were on the cards back of the cows and covered by a blank. An attempt was made to get just as many people to place the animals as possible who were dairymen and breeders, peo-

ple who would know something about cows. It was quite easy to get them to work on the proposition. A large number of these cards were filled out and almost all of them by people who were well enough informed so that they handled the animals all over very carefully and picked them for production with considerable intelligence and they demonstrated what the exhibit was supposed to demonstrate, that it is impossible to tell by the looks of a cow what her production will be and that weighing and testing must be done in order to actually determine.

A look at the way these animals were placed will be interesting. The low cow was thin in flesh and many of the judges picked her for the high producer because they thought she was worked out. They thought that had she not produced more than the others she would be in good rig, too, but as a matter of fact, the other four cows, each of which had produced far more milk and far more butter-fat than this thin one, were all in good flesh and you will remember had all been under the same care, which goes quite a ways towards proving that just because a cow is thin is no sign that she has been working. Twenty-five per cent of the people picked the poorest cow for best and approximately the same per cent picked her for worst. This demonstrates to us, and we believe will to the readers, that she was a good-looking cow from a production standpoint. This placing was done by people who have been handling cows and think they know. Twenty-five per cent of them picked her for the best cow in the bunch. As a matter of fact, they were applying what judgment and intelligence in the matter they possessed but at that they might as well have shut their eyes and guessed. They could not have gotten any farther from the truth.

The high cow was a high tester. She did not give quite as much milk as two of the other cows, but tested enough higher to make her total butter-fat quite a bit more. Twenty-seven per

cent of the men placed her first and some said: "Why, that is easy. You can see she is a high tester." But one of the other cows had a test nearly as high but did not give milk enough to make her butter-fat total high. Of all those who put the high cow first, some arguing that you could see the high test in her, seventy-three per cent put the other high testing cow at the bottom of the list, demonstrating that while the high test was present in two cows they could only see it in one. This has a tendency to cast a shadow on the statement that they could see the high-test.

While particular attention was called to the contrast between the low cow and the high cow, at the same time the low cow might have been compared to any one of the others, and if it were possible to distinguish the star boarder by the looks we should have expected that the low cow would have been picked as low cow in a big per cent of the cases because the most of the men who guessed had considerable knowledge of the game. Anyone who placed her above any one of the others demonstrated that she had fooled them and seventy-five per cent of the men did that way and twenty-five per cent of them put her first, which indicates that besides throwing them off the trail she actually led them astray. They not only thought she was better than some of the other cows, but that she was the best in the bunch. Some said: "Well, maybe she simply had what is called an 'off year'." But she has been on test now four months of the second year and is doing the same stunt over again.

The big idea in the cow-testing association is to locate the cows that are decidedly low producers during the year and the reason we want to locate them is because they do not produce enough to pay for their keep and they drag the average of the herd down until we are liable to condemn the dairy business when if we condemned a few of the poor producers the dairy (Continued on next page).



At the National Dairy Congress, some of the Finest Dairy Herds of the Country were Exhibited. The Best State Herd was Shown by Minnesota.



# Feed Prices Are Looking Downward

*Sanders Sosland Reviews Present Situation*

NOW that feedstuffs are on a past few days around \$31 a ton for changed basis, having undergone one of the most radical and general recessions in many months, consumers are beginning to display a friendlier feeling toward the market. But their friendliness is not apparent to the extent that demand for feeds has shown a sharp increase or even material improvement. The consuming trade considers the fluctuations in market values as conclusive evidence that permanent readjustment from the war-time levels is now in progress and that the changes are not merely the seasonable setbacks so often witnessed at this period of the year. A study of demand and supply conditions certainly warrants such a conclusion.

As to whether the consumer should enter the market and begin accumulating his late fall and winter needs of corn, oats, bran and shorts, cottonseed cake and meal, linseed feed, alfalfa, tame or other hay, commercially prepared mixed feeds and similar commodities, is as much of a problem as prospective buyers indicate it to be. I made the statement in these columns more than a month ago that September usually is the low month of feed values and that, with a continuation of favorable weather, expected declines would materialize during the month. Losses, even more radical than forecasted, were witnessed, forcing the average market price of feeds considerably below that of previous months of the year. But I am not ready to say that, even though September closed with comparatively low levels on most feeds, that the bottom has been reached. And this statement is made in face of the fact that the normal trend of prices after September is upward, quite often sharply upward before the close of the calendar year approaches.

Not in a great many years have feedstuffs as a whole been available in such an abundance or offered prospect of such enormous production as this season. In a very large measure, this is the basis for the belief that the readjustment of values has not been carried down sufficiently. The fact that fewer stocker and feeder cattle are moving to feedlots and the shrinkage in the holdings of stock hogs on farms, pointing to reduced consumption in the country, are other bearish influences, also, instead of further inflation of commodity values, as has been witnessed in recent years, markets, and this includes feeds to the same extent as other products, are in a period of well defined deflation of prices. In this connection it is well to note that the break in feeds has been influenced to a considerable extent by the depression in cotton, wool, coffee, sugar, steel products and many other staples, and will continue to feel such changes even though only sentimentally.

TO the feed consuming interests of Michigan, the greatest satisfaction is apparent over the declines in wheat millfeeds, bran and shorts. Bran is now selling at the lowest level in about two years or since the period of control by the United States Food Administration, when prices were fixed on the offal. From the extreme peak of prices, around \$55 a ton in Minneapolis and Kansas City, and probably around \$60 a ton at points in Michigan, reached in the forepart of May, the market has suffered a setback of approximately fifty per cent, leading milling markets of the west now offering the feed at slightly above \$30 a ton. Liberal sales of hard winter bran have been made in Kansas City the

or standard middlings, for which there is practically no demand, at a discount of about \$5 to \$8 a ton. Because of the enormous corn crop and the depression in that grain, together with the recessions in barley and barley feed, a strong competitor of shorts, the wheat feed should undergo a further price readjustment which should carry the market down to a margin of not more than \$10 a ton over bran. Hog producers should buy their shorts cautiously and conservatively.

Millfeed has suffered more from a lack of demand rather than from excessive production. The output of bran and shorts by mills, in fact, has been considerably below normal for the summer and fall seasons, owing to an extremely light demand for flour and consequent restricted activity by plants of the country. But pastures made such luxuriant growth over the entire west and middle west, being in excellent condition even at this time in most sections, and the stocks of roughage on farms have been in so great an abundance as to provide almost complete substitutes for the offal. Of course, dairymen have consumed liberal quantities of bran in recent weeks but they have bought on a hand-to-mouth scale and included far less of the feed in their rations than at this time a year ago or in earlier months. And it is safe to anticipate no sharp improvement in demand through October, though, as the weather becomes colder and stocks of home feed dwindle, demand will broaden, or at least should broaden, to the extent that any further declines in prices will be checked.

THIS is not a time for extreme bearishness on bran. The market already has undergone radical depression, about \$25 a ton within four months, including about \$10 a ton within the past month, and, recognizing that the downward trend cannot continue indefinitely, a halt should soon be witnessed. Still, bran can yet decline sharply before reaching a normal pre-war price, which is less than \$20 a ton, but there is no basis for expecting such a figure for many months or for the remainder of the crop year. Bran may yet ease off further in price to reach a relative parity with competitive feeds, but this is about the extent of the losses to be expected, if even this. I rather incline to the view that the dairymen who begin now to lay in a supply of bran for late fall and winter needs will eventually profit.

There is less bullishness noticeable in the shorts market. The heavier offal still is at a sharp premium over bran, which must narrow, either by a subsequent upturn in the dairy feed or further depression in the gray and brown middlings. The latter action is the more probable. Gray shorts or flour middlings are bringing between \$48 and \$52 a ton in Chicago and St. Louis, \$45 to \$47 a ton in Kansas City, \$50 to \$52 in Minneapolis, with brown shorts

seed feed. Fewer cattle are being bought on markets for feeding, owing to discouragement over the action of bovine prices in recent months. Also, the tendency to make use of cheaper products has checked demand for high protein feed. Cake and meal can be bought in Oklahoma around \$49 to \$50 a ton for forty-three per cent protein prime grades, and around \$46 to \$47 a ton in Texas. The southeastern markets are on a similar basis. Seed has advanced slightly in price, but can yet share further sharp upturns before influencing bullishness in cake and meal. Crushing operations will soon reach a high point, and markets should then afford a clear idea of the underlying strength of prices.

COTTONSEED feed remains in a rather weak position, though unfavorable weather for a time the past month caused a temporary upturn in prices. Cake and meal have not yet reached a price level where purchases are advisable, further declines being almost generally expected as the crushing approaches its most active period. Demand for the high protein feed from meat animal producers is extremely light, of an almost insignificant volume, but the lack of buying power from this element has been made up in a measure by the sales to domestic manufacturers of commercial fertilizer and to foreign countries. Greater interest has recently been displayed by export handlers at the seaboard and moderate quantities of cake and meal have been worked to European nations. However, it is improbable that exporters will lend buying support to the market on the basis of the current quotations. It is true that foreigners are paid around \$48 a ton for loose slab cake, basis Oklahoma points, but purchases at these figures called for immediate shipment and were for account of short sales previously made. For later shipment the export bids are at a discount of about \$5 a ton and in instances even more. The belief is generally expressed that foreigners will not become heavy buyers unless values recede below \$40 a ton for forty-three per cent cake and meal in Oklahoma and Texas. Nor is it probable that they will be enormous buyers even on that basis, owing to the abnormal relationship of exchange and the difficulty in obtaining credit abroad. However, the fact must be remembered that in the pre-war period Europe absorbed the great bulk of our production of cottonseed cake and meal, comparatively small sales having been made to domestic feeders then. With this in mind, it is difficult to anticipate the probable trend of the foreign demand. For the present, no concern need be felt, as the exporters are balking at the current prices.

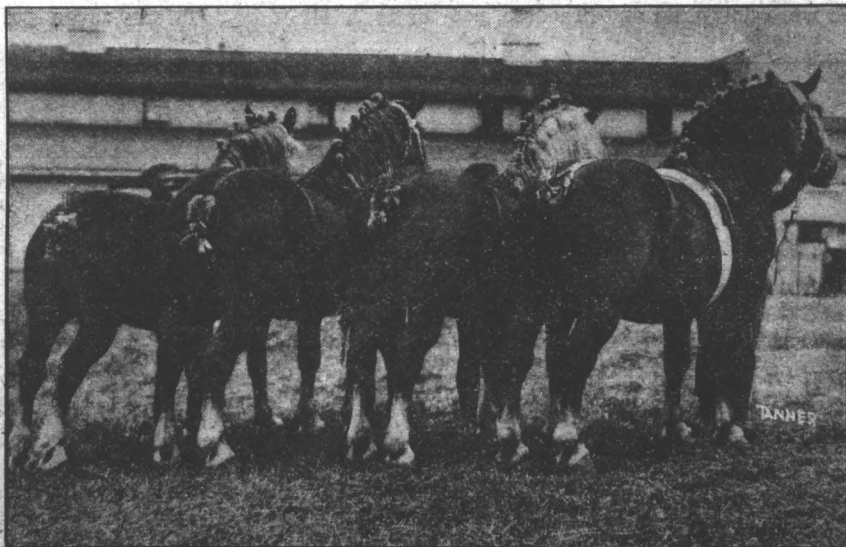
Feeders cannot be counted upon to supply a very broad outlet for cotton-

seed feed. Fewer cattle are being bought on markets for feeding, owing to discouragement over the action of bovine prices in recent months. Also, the tendency to make use of cheaper products has checked demand for high protein feed. Cake and meal can be bought in Oklahoma around \$49 to \$50 a ton for forty-three per cent protein prime grades, and around \$46 to \$47 a ton in Texas. The southeastern markets are on a similar basis. Seed has advanced slightly in price, but can yet share further sharp upturns before influencing bullishness in cake and meal. Crushing operations will soon reach a high point, and markets should then afford a clear idea of the underlying strength of prices.

CORN and oats have been on the toboggan, and it is a question just at the moment whether the feed grains have completed their ride or will renew the journey after a rest. While it is recognized that the time is not ripe for bullishness on corn, as markets have yet to feel the weight of the actual grain both by enlarged stocks on farms and heavier movement to terminals, the extremely low price of the grain is stimulating the belief that values have reached practically their low point. Cash corn is available on markets at less than a dollar a bushel, the first time since the opening of 1917 that this level has even been approached. The deferred deliveries, December and May, are quoted slightly below ninety cents a bushel at this writing on middle west markets, hardly more than sixty-five to seventy-five cents a bushel net to the producer. Oats range between fifty and sixty cents a bushel, and like corn, is closer to a pre-war basis than any other feedstuff. In view of the low levels reached on the grain, further extreme bearishness is not advisable. Still, when it is recognized that the corn crop is of enormous proportions, the largest in history, and feed of every kind is in great abundance, one is almost ready to conclude that the feed grains can yet safely decline further.

## COW-TESTING ASSOCIATION.

(Continued from preceding page). business might look good. We are quite positive that Mr. Bradford would not have located this poor cow in this herd had the milk not been weighed and tested and it is quite evident from the herd he picked up that he has an idea of what they ought to look like, and we believe we are safe in drawing the conclusion that in most every herd there are some individuals like this one that stay in the herd year after year producing at a loss and simply because the owner does not actually know what the cows are individually producing. We have had men tell us that they could do the same thing with their herd that the cow-testing association does. We agree with them that they can, but when a fellow tells us that he does do the same thing with his herd that the cow-testing association does, we generally quit talking with him because we are afraid we might question his veracity. In other words, the owner can do it but he does not do it. The Kent County Cow-Testing Association is doing good work but it is only testing twenty-five herds out of thousands that exist in the county. There ought to be more interested in this kind of work and there ought to be more such exhibits as was put on at the West Michigan Fair to demonstrate beyond a question of a doubt the value of the work.



First Stallion and Three Mares at International Belgian Horse Show.



# Trade Stabilized Through Cooperation

*A \$25,000,000 Business Handled by a Producers' Marketing Company*

*By Herman Steen*

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THERE used to be a theory that a cooperative marketing organization could not be a success until the industry was nearly down and out. "Farmers won't work together when they have any money in their pockets," said the theorists. They won't cooperate until they are compelled by dire necessity to do so. They won't learn the principles of cooperation until they have gone broke, or at least are badly bent." This idea was so generally accepted at one time in California that most students of cooperation regarded it as one of the fundamentals to success in cooperative marketing.

Along came the prune growers in 1917 and dropped a bomb upon this theory. The prune growers were reasonably prosperous when they organized, and their industry was distinctly on the up-grade. For several years before 1917, there had been some money made in producing prunes. Growers had suffered a good many ups and downs in times past however, and they organized to make permanent their temporary prosperity.

The old theory was badly shattered when the prune growers' organization started operations. It completely disappeared in a year or two because the California Prune and Apricot Growers, Inc., soon developed into the nearest approach to perfection that has come out of the cooperative marketing movement in California.

## Ups and Downs of Prune Growing.

The cause of the alternate periods of depression and prosperity which formerly prevailed in the prune industry was thus described to me by Sheridan W. Baker, a leading grower in Santa Rosa county. "We produced prunes the best we knew how," he said. "A high degree of skill in production was developed among the growers. A period of good prices always resulted in stimulating the industry and inducing larger plantings. When these new trees came into bearing, there was a period of over-production and low prices, and this resulted in orchards being pulled out."

"Soon the pendulum swung to the other extreme, and we were riding on the crest of prosperity. The money that was made the good years was lost in the poor years that followed as surely as day follows night. I have observed, too, that this same rule applies to nearly all kinds of farming except where stabilization has been effected by cooperative organization."

## Local Associations Failed.

The prune growers made a number of attempts to organize in periods of depression as long ago as 1900, but the organization thus formed soon failed. Growers in each prune-growing community formed separate associations, but the speculators played one against the other and broke up the local associations.

Nowhere in California has the failure of the local unit as the basis for cooperative marketing been demon-

strated more strikingly than in the prune industry. Time after time the prune growers in Santa Clara, of Santa Rosa, of Sonoma, and of other districts formed their separate organizations and saw them follow each other into early graves. Because of the lack of a central agency to gather information, direct sales and weld the business of the locals together, the locals quarreled among themselves and went to pieces. It reminds one of the sage saying of Benjamin Franklin, "We must all hang together, or we will hang separately."

Another thing which kept the prune growers from uniting, was the jealousy which existed between various sections. Santa Clara growers were sure that their prunes were better than those grown in the Santa Rosa district, and vice versa.

## A Broader Viewpoint.

Finally in the spring of 1917 the growers did succeed in uniting upon one proposition—that they were not getting their share of the consumers' prime dollar. "Prunes are selling too high in New York in comparison to what we get for them," they said. They began looking upon the proposition from the standpoint of the indus-

try and not from the standpoint of individual growers or of districts. When the point was reached, it was easy to organize a state-wide association of market prunes. The apricot growers joined, too, as apricots and prunes grow in the same districts, are processed and handled much alike, and seek the same markets.

For general manager of the new association, the prune growers selected H. G. Coykendall, part producer and part packer, a shrewd business man who knew the prune game as well as any man knew any business. He had the entire confidence of the growers, as he had helped previous organizations sell the crops of their members.

## Developing Machines for Marketing.

In four months time Coykendall and the intrepid souls working with him had succeeded in getting seventy per cent of the prune and apricot growers in California to pledge their entire crop to the association for a term of years. They had developed a brand-

new marketing machine to handle a one hundred and ten thousand ton crop of prunes, which had always been marketed through the eight or ten big speculative firms which formerly dominated the dried fruit business of the Pacific Coast. They had to provide warehouses and packing sheds, secure an outlet for the product, and above all, had to finance the undertaking—all in one short summer.

## The Contract with the Growers.

The prune and apricot associations, like the raisin growers, citrus growers and all other cooperative organizations in California, has a contract with the growers which binds them to deliver all the dried fruit produced to the association plants. If a grower fails to

The number of prunes per pound determines the grade of prunes, and to a considerable extent the price, also.

Every grower received the same price per pound for the same quality of fruit.

There is no speculating in prunes any more. Every grower has the same chance at the market as every other grower, and nobody has any advantage. The crop is pooled, and separate accountings are made to the growers for every separate quality and size of fruit they produced. When the year is over all have received the same rate of pay for equal quality of fruit.

## Financing Crop Movement.

An advance to the growers is made at the time the crop is delivered to the association. This is about two-thirds of the amount expected to be paid for that grade that year. In order to make the first payments, it is necessary for the association to borrow large sums of money. This was formerly very difficult to do, but the banks of California have learned that there is no better security than the note of a cooperative marketing association, because that note is backed by the whole crop which the association handles for its members.

As the prunes are sold, money comes in, the notes for the advances are taken up and the growers are paid the difference due them. It takes nearly a year for final payment to be made, though from seventy-five to ninety per cent of the sale price is received by the grower in the first three months after crop delivery.

## An Organization Without Profit.

The California Prune and Apricot Growers, Inc., was at first a stock company but was changed this year into a non-profit organization without capital stock. Each grower now pays a membership fee of \$10. The growers by districts select a voting board of thirty-nine, which elects the directors, who in turn have executive direction of the affairs of the company. The vot-

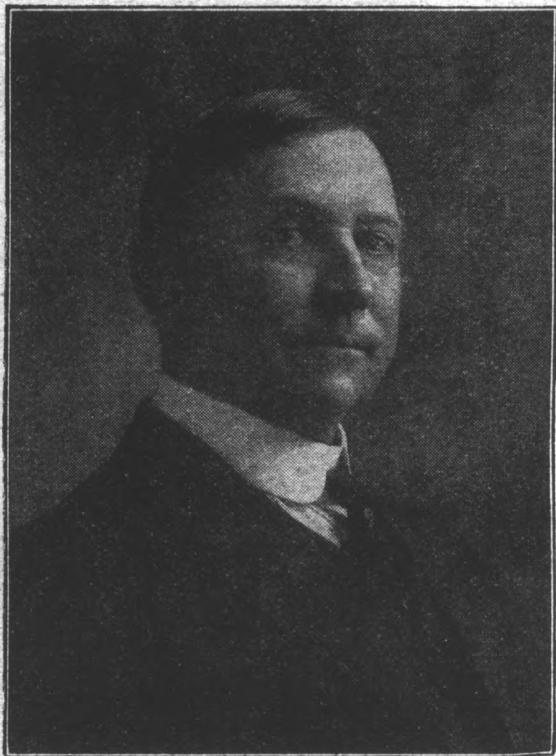
ing board is the same as the voting trust of the raisin growers, described in detail last week.

The voting board elects all the directors but one, who is chosen by the governor of the state to represent the public. A number of California cooperative associations have this public representative.

This public representation is a deliberate bid for the support of the general public, as the cooperators believe that the people will be back of any institution which they believe is operated with due regard for their rights. "This has been one of the fundamental reasons for the success of our marketing associations," declares Aaron Sap-iro, attorney for several of the organizations. "But imagine the railroad asking the government to put a representative of the public on its board of directors!"

## The Growers Determine Prices.

In August each year the board of directors determines the prices. (Continued on page 492).



H. G. Coykendall is General Manager while Mrs. R. G. Wallace Looks After Sales.



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## With Cloverland Farmers

WHETHER or not the upper peninsula shall ever be able to grow mature peaches at all, it is obvious that our supply of this fruit must largely be supplied from territory to the southward. With peaches selling at retail as high as six dollars per bushel in this territory, and with peaches rotting in the lower peninsula, as we hear it, for lack of a market, it is obvious, too, that something is wrong with our system of distribution. Here is something for the state director of markets or the Michigan State Farm Bureau to think about. Probably the farm bureau, at least, has done some thinking already. The problem is not easily solved. We shall soon have a similar situation as regards apples, pears, etc. The upper peninsula is a large importer of fruit, in spite of the excellent crops grown in certain limited areas; and it is willing to pay a good price for it. It would be for the mutual advantage of farmers in the fruit belt of Michigan and of consumers north of the straits if this marketing problem could be solved.

The arrival in Sault Ste. Marie, this week, of eight hundred bushels of peaches by boat from Pentwater and other south Michigan points, illustrates the importance of water transportation in this section. There are farming districts lying near the lake shore whose products largely go to market by boat rather than by road or rail. Such a place is the peninsula from Garden to Point Detour in eastern Delta county, whose produce and live stock mainly go to Escanaba by water from Fairport, Sac Bay, Fayette, and Burnt Bluff. At the latter point, farmers have themselves combined to erect a dock and warehouse. This is on the Lake Michigan shore, while on the Lake Superior shore, Skanee on Huron Bay ships to Houghton in the copper country by water—the most direct and practicable route. Thus, this season, considerable amounts of apples have gone to market this way. Around Skanee is some exceedingly attractive farming country, the farmers being chiefly Swedish; but the place is far off the railroad, and the lake is the most available transportation route until December.

What is farm land in the upper peninsula worth? I have had occasion to make some inquiries in this direction, the results of which may interest your readers. The appraiser for the Federal Land Bank of St. Paul, in whose territory this section of the state is situated, finds the highest priced farm lands to be located in the counties of Menominee, Delta, Chippewa, and Houghton, where appraisals run as high as one hundred dollars per acre with actual sales at a higher figure. Occasionally, too, this valuation is attained in Marquette county. The assistant state leader of county agents for the upper peninsula, places the most valuable farm lands in Menominee county, where the range is as high as \$150 per acre, he says. Normally, in Marquette county the better grades of improved farm lands sell at \$50 to \$60 per acre, I am told by County Agent L. R. Walker. On the other hand, we have large tracts of cutover lands—there are estimated to be 12,000,000 acres in the whole state—whose values run from \$7.00 to \$20 per acre. One railroad holding nearly 200,000 acres of land in the northern peninsula offers its cut-over lands at \$7.00 up. Another concern which has some 19,000 acres southeast of Marquette, is selling, this season, at an average price of \$17.90 per acre. A lumber company operating on the peninsula between Huron and Keweenaw bays has sold eighty "forties" at from \$10 to \$15 per acre, while another lumber company operating to the west of Keweenaw

Bay sells at \$15 to \$20 per acre. These large companies usually reserve mineral and certain other rights.

The Weekly Weather and Crop Bulletin issued by the office of the United States Weather Bureau at Grand Rapids, mentions killing frosts as having occurred in the upper peninsula on September 19. This applies only to certain areas. The high table land extending throughout the western half of the peninsula from Negaunee to Ironwood, with elevations from seven hundred to fourteen hundred feet above Lake Superior, has had such frosts, although a week ago I saw corn near Ironwood as yet uninjured in this way. There is likewise a low, swampy region in the eastern half of the district where early frosts may be expected. It is otherwise along the lake shores, hundreds of miles in extent, where the lakes temper the atmosphere. Thus there have at this writing been no killing frosts in Marquette—or any frosts for that matter, and peach trees, corn, tomatoes and other garden vegetation are as unfrosted now as at any time this season.

That the upper peninsula is a great storehouse of the raw materials of industry is well known, but how varied are its mineral products are scarcely appreciated even within the district itself. The farmers of the region are coming to have an interest in the vast deposits of high-grade limestone found in the eastern portion of the district, whose calcium carbonate content runs as high as ninety-eight per cent and occasionally higher, when water is removed. Five carloads of limestone were brought into Marquette county this spring by local farmers as a soil corrective, obtained in this case from Sault Ste. Marie, where it is to be had as a cast-off by-product but in a highly pulverized form adapted to farm use. Much of the product of our limestone quarries goes to the steel works at Sault Ste. Marie, Ontario, and Duluth, to the copper smelters of the copper country and to carbide plants. Only the coarsest pieces are removed, the finer pieces being dumped as waste. Eventually an agricultural demand for this waste material may conceivably arise, for it is exceedingly cheap, and the railroad companies which handle it—the "Soo Line" and the "South Shore"—transport it at a low rate. Thus the rate from the quarry at Fiborn to Duluth, before the recent advance of freight rates, was \$1.62 per ton; to the copper country, \$1.48 per ton, and to Marquette, 94.5 cents per ton. The two railroads are now handling about fifty carloads per day of this limestone.

The Michigan Pioneer and Historical Society expects to hold its 1921 upper peninsula meeting at L'Anse, in conjunction with the annual Indian camp-meeting held at Pequaming on the shore of Keweenaw Bay, some ten miles distant. The L'Anse tribe of Chippewas has had a reservation there since the Indian Treaty of 1854, and their farmsteads are passed as one proceeds along the beautiful drive on the eastern shore of the bay.

L. A. CHASE.

In order to prevent the Michigan crop of clover seed from being sold outside the state before Michigan farmers procure their next year's supply, Prof. J. F. Cox, of the Farm Crops Department at M. A. C., has called attention to the fact that for the first time in four years it can be purchased now at a relatively low price. The Michigan crop is in good condition and an excellent yield is reported in most sections. Many farmers who have been forced to seed thinly for the last few years are buying from neighbors this fall, a practice which the Farm Crops Department at M. A. C. strongly recommends since Michigan-grown clover seed is best for planting within the state.

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# Stumping the Stumps

By A. W. Hopkins

IF the seven million pounds of dynamite and T N T which have been used for land clearing in upper Wisconsin during the last four years were loaded on cars, the train would be nearly three miles long; and if the stumps which have been blown out by explosives were gathered in a pile at Madison they would build a heap six times larger than the state capitol.

On October 12, Marinette county, Wisconsin celebrated the completion of a tremendous program which called for the clearing of eighteen thousand acres of land in 1920; and not only has Marinette reached its goal but it has a grand total of more than twenty thousand acres of land cleared within the present year. "You can't bluff a pine stump," has been the slogan for thirty or forty years, yet this is



Placing the Charge.

which has placed Wisconsin among the foremost states in land clearing.

#### Consigned to the Ash-heap.

Tough pine, two, three, four-foot stumps have gone the road to the ash-heap; a stump puller or a blast of dynamite or T N T, then a huge pile of twisted broken pieces of roots and stumps, and lastly a smouldering heap of ashes signals the departure of the stump patch. Stumps are burned in the modern stump clearing program rather than left at the side of the field to harbor insect pests, or as a burrow for "cottontails."

Land clearing trains, field demonstrations, and even personal solicitation on the part of the cooperating persons have made stump clearing work popular even with men who have been blasting stumps for years. At a meeting held just a few days ago, an old dynamiter who had been clearing stumps for years told this story:

"It was along back when the first railroad came through the country, when all of a sudden we heard the biggest noise you could think of coming from the place where they were putting through the roadbed. We never

heard anything like it. They were using dynamite to lift the stumps and loosen them and then they chopped and grubbed out the rest.

"What we had been doing back there for years was just grubbing and chopping and this idea looked good. I started work on the railroad then along with the gang that was digging stumps. We did just as they had been doing for a while and finally I began to wonder if we could lift those stumps with a little dynamite why we couldn't blow them out of the ground with a little more. The idea worked, and after that I have used dynamite for blowing stumps ever since." And then the odd part of the story came along. Here was a man who had been clearing land

what he said: "And I want to tell you right now that I come to your meetings and demonstrations and learn something new from them every time."

#### Cheaper Dynamite Used.

But when the work with dynamite was started a few years ago, the dynamite which has since played such an important part in land clearing was not in use. The original dynamite contained large quantities of nitro-glycerine and generally caused the so-called "dynamite headache;" it was higher priced; it froze readily and was therefore less convenient in thawing it; there was always more or less danger, and lastly, it was less efficient compared with the present explosive.

Then in cooperation with one of the large powder companies came a close study of the problem and the manufacture of "twenty per cent" dynamite, which has greatly reduced the previous objections. And the nitro-glycerine content has been cut so low that there is much less injury possible from the poisonous gases or from handling than with the old-fashioned explosive.

#### T N T Use Developed.

Particularly effective use has been



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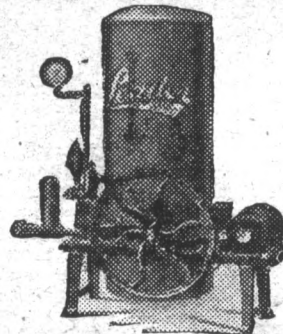
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made of the government's waste TNT, the high power explosive used so largely during the war and for which there appeared to be no use when the war ended. Seven hundred and fifty thousand pounds of it have been used in 1919 and 1920 for stumping purposes, saving the farmers in actual cash outlay over one hundred thousand dollars.

Distribution costs have been cut through the work with county agents. Not only has there been a great saving by dealing in carload lots, in original cost, but the storage expense has been taken away completely. The dealer handling dynamite in small lots, storing it out in the country and having to drive out every time someone wants a few pounds, must charge at a conservative estimate, seven cents a pound more than the farmer pays when he gets the explosive from the car. In 1920 this reduction on the one hundred and thirty carloads, or 2,600,

000 pounds has meant a direct saving of \$182,000, for the land clearers.

Thus, while over 75,000 acres of land have been cleared and the valuation

has been increased over five million dollars through the assistance rendered the farmers in better methods of buying, they have been saved nearly

\$300,000. Demonstrations and cooperation of all concerned in the development of upper Wisconsin has indeed had its effect and the business of clearing stumps has not only become statewide but it has attracted the attention of organizations from all over the United States.

In the language of one of the men most interested in the work, "This land clearing work is big. It is bigger than any one man working up there can ever conceive. We rough it up there, but let me tell you that it's worth it, worth getting along without a white collar for weeks. You bet it is." It is estimated that the use of dynamite in 1921 will easily amount to five million pounds, as against three million pounds used in 1920. It is no proposition of even making two ears of corn grow where one grew before, but it is making a dozen potatoes grow where poplar brush and pine stumps dominated the soil of Cloverland.



Potatoes Are the Money Crop.

## Estimates of Michigan's 1920 Crops

*Although Prospects for Potatoes Declined, the Outlook for Corn, Beans and Sugar Beets Improve During the Past Month*

AS the end of the season approaches, the condition of the principal crops remains well above the average in Michigan. The warm, dry weather and almost entire absence of frost during September was generally favorable. There was no material decline in the prospects of any crop except potatoes, which are showing disappointing yields in some important sections. Corn, beans and sugar beets made gains the past month, and all of the fruits except grapes are yielding a larger crop than expected. With the exception of spring wheat, all crops included in the October inquiry of the joint crop reporting service, under the direction of Verne H. Church, Agricultural Statistician, United States Bureau of Crop Estimates, and Coleman C. Vaughan, Secretary of State, are well above the ten-year average.

**Wheat.**—The winter wheat crop is estimated to have been 12,855,000 bushels; a yield of fifteen bushels per acre. The spring wheat crop is very poor, both in quantity and quality. The estimated production is 462,000 bushels, the estimated yield per acre being 11.0 bushels. Therefore, the state's total wheat crop is placed at 13,317,000 bushels. Of this amount, 28 per cent was marketed up to October 1, or 3,729,000 bushels. The amount marketed during September was 2,301,000 bushels.

**Corn.**—While late in ripening, the absence of frost in September until near the close permitted it to mature well. It is well-eared except in a few southwestern counties that suffered severely from a drought lasting nearly the entire season. The condition is 92 per cent as compared with 88 per cent one month ago. If all of the acreage, including that for silos, were matured for grain the total production would be 63,690,000 bushels, or within less than 1,000,000 bushels of last year's crop.

**Oats.**—Notwithstanding the unfavorable conditions early in the season, an average yield of 38.5 bushels per acre was obtained. This yield was only exceeded in 1915 and 1918 during the last sixteen years. The total production is placed at 55,671,000 bushels. The feeding value of the crop is relatively good, but owing to discoloration by rains in some sections, those going into market channels are necessarily lowered in grade.

**Barley.**—The quality is generally good except that many fields were discolored by rains in the eastern counties. The estimated yield is 27 bushels per acre, making a total crop of 6,966,000 bushels as compared with 5,320,000 bushels produced last year. The United States crop is 25,000,000 greater than last year.

**Potatoes.**—The outlook for potatoes has dropped six per cent during the past month. This material decline is due to a pronounced falling off in the prospects in some of the best potato districts. Kalkaska county dropped from 93 to 57 per cent in condition;

Wexford county from 93 to 68 per cent; Grand Traverse county from 96 to 77 per cent; and the entire northwest district, comprising ten counties, from 96 to 79 per cent. In many fields the potatoes are small in size and a large percentage will grade as No. 2 stock. The decline is attributed mainly to aphids and leaf hoppers. Late blight has appeared in some localities, chiefly in the southeastern part of the state, the nature and extent of the damage from which is not yet manifest. The state's crop is estimated at 34,760,000 and the United States crop at 414,986,000 bushels as compared with 28,688,000 and 357,901,000 bushels, respectively, last year.

**Buckwheat.**—The crop in most sections is well filled and the outlook is for 86 per cent of a crop, or 706,000 bushels. Last year's crop was 662,000 bushels. The crop of the United States

is slightly less than that of last year.

**Beans.**—The crop in many counties was harvested under ideal weather conditions; in others, rains have caused some damage. Blight shortened the yield in portions of the bean belt, but excellent yields are reported from other sections. The outlook is for a crop of approximately 3,686,000 bushels as against 4,030,000 bushels last year.

**Clover Seed.**—The information secured through the inquiry relative to yield indicates the average to be 1.9 bushels per acre, or a total crop of 144,000 bushels. Last year's crop was estimated at 101,000 bushels. The United States crop is also nearly 50 per cent greater than last year, being estimated at 1,576,000 bushels.

**Sugar Beets.**—The condition of sugar beets is 92 per cent, two per cent better than last month, six per cent better than last year, and nine per

cent better than the ten-year average. In many localities the crop is the best in recent years.

**Fruits.**—The present estimate is 13,800,000 bushels as the total or agricultural crop of apples in the state, as compared with 6,484,000 last year. The quality is generally good except in the northwestern counties, where scab is unusually prevalent. The crop is so abundant that the market has been very dull and many have not been harvested, as the price that could be obtained was insufficient to compensate the cost of picking and handling. For the United States, the crop is estimated at 227,978,000 as compared with 147,457,000 bushels last year. The estimated pear production in the state is 990,000 against 426,000 bushels last year. While the crop of grapes is large, the production in some localities proved to be less than estimated last month. The condition on October 1 was 92 per cent.

## Inventory the Farm Flock

ON some farms at this time of the year the poultry flocks consist of two hundred to five hundred birds of all ages. Some will be early hatched stock of good development and vigor. Others will be late hatched and of less value. Often the exact number of birds of all ages is not known and this makes the plans for fall and winter very uncertain.

It pays to check up all the birds at night and know exactly how many of each sex and age are on the farm. This not only helps to control poultry stealing from thieves and other pests but gives the farmer a definite idea of his poultry business for the coming year. The early-hatched pullets can be marked. Only save enough of them to fill the farm poultry house, allowing four square feet of floor space to each bird. Overcrowding is a sure method of reducing poultry profits. After culling the old hens and deciding which are to be saved for breeding stock, enough of the best pullets can be marked to fill the house.

Check over the cockerels and if none are to be saved to sell as breeders, save the best for home use and market the remainder as soon as they reach the broiler age. This will save feed and give the pullets a better opportunity to develop if both sexes are using the same range. If enough early hatched birds have been produced it does not pay to save the late-hatched stock and more annual income from poultry can be made by selling both the pullets and the cockerels from the late-hatched stock. In saving the cockerels for home use it pays to allow several extra birds to remain as some

may not turn out as well as expected and occasional accidents may injure some birds.

The custom of saving all of the pullets causes poultry losses. Young pullets are always in demand by breeders who have not raised enough for their own use. Nothing is gained by keeping too many pullets (for the housing capacity when some of them can be turned into cash while giving the remaining birds a chance to earn more cash.

The inventory tells the farmer just what he has for sale. On some farms raising large flocks of poultry the owners cannot guess within a hundred birds of the number on the range. If rats or weasels take birds the fact cannot be determined. If a poultry thief robs a colony house, the owner is not sure how many birds have been lost and the necessary protection will not be given to the flocks at night.

More profit will come from farm poultry raising when the flocks are culled early in the season. The birds to be saved can be banded and then the remainder can be sold as soon as they reach a marketable age, either for broiler meat or breeding stock. It is not the number of birds in the flock but the quality of the stock that determines the returns. Of course, a large flock of good birds will bring more money than a small flock but often a large flock of all ages running together eats up the profit from the good birds. The inventory enables the poultryman to save what he needs and give the remainder of the birds the prompt culling which brings in money and cuts feed bills.

R. G. K.

### SUGAR BEET GROWERS PUT HEADS TOGETHER.

A conference of sugar beet growers from twenty-four counties has been called at Lansing on October 19, by the State Farm Bureau to consider a plan for cooperative marketing of the 1921 crop of sugar beets. Growers are ready to do either one of two things: establish their own refineries and manufacture their product, or contract to sell the whole of their crop through one agency after the Californian plan which has already been adopted by the Ohio sugar beet growers, according to the State Farm Bureau. Counties that will have sugar beet men at this meeting are Tuscola, Saginaw, Sanilac, Isabella, Gratiot, Huron, Bay, Arenac, Wayne, Shiawassee, St. Clair, Ottawa, Monroe, Macomb, Lenawee, Lapeer, Genesee, Midland, Ingham, Clinton, Eaton, Allegan, Gladwin and Menominee.

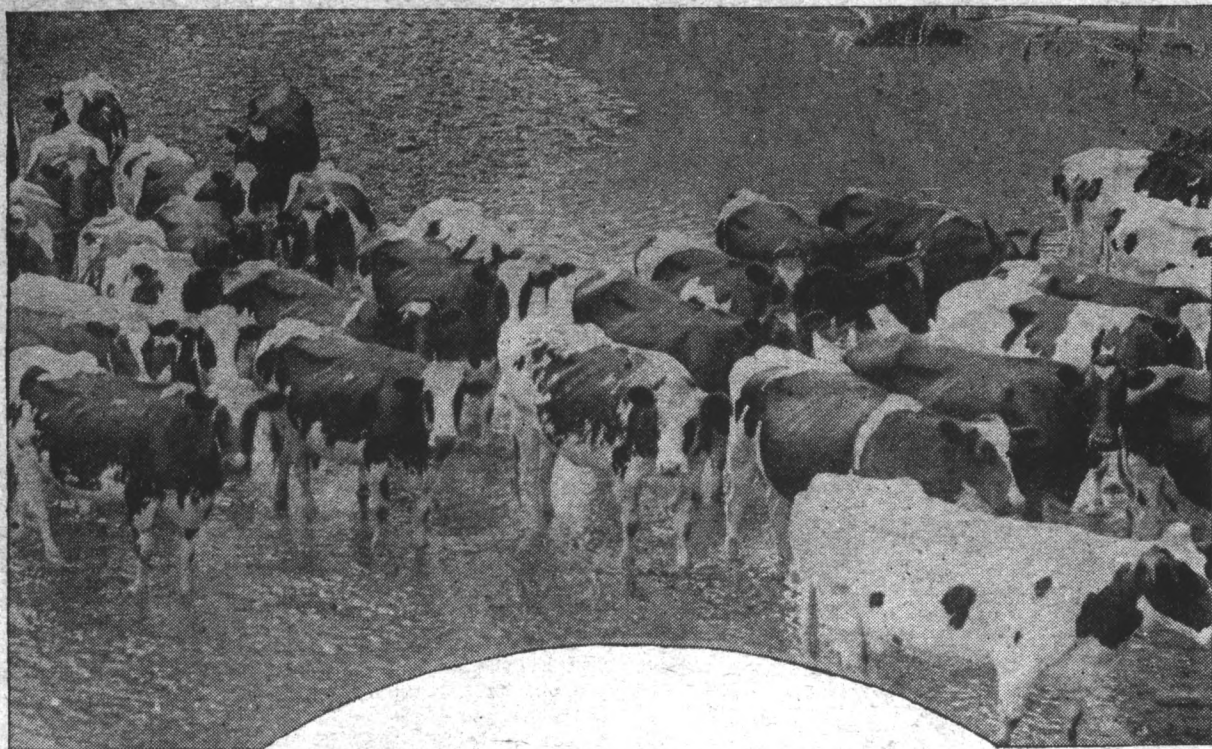
### FARMERS' GRAIN MARKETING COMMITTEE MEETS.

THE grain marketing committee of seventeen, represented and ratified by all farm organizations, held its first meeting in Chicago, October 4-5. This is the first definite step of all farmers of America to create a grain marketing system which will eliminate speculation and stabilize prices. The committee divided into five sub-committees to make a special study of cooperative marketing methods, cost of marketing, storage and transportation, consumption and export and finance. The committee on cooperative marketing methods will make a study of every type of marketing organization in the United States and report to the next meeting. The next meeting will be held November 4-6.



# True Value

## DAIRY FEED



### Fall Days

with their chilly winds offer a mighty good reason for giving special attention to the feed of Dairy Cows.

Start your winter program of feeding early. Do not let any other farm work interfere with this important need.

Even though the cows may be dry, they need a concentrate to balance their ration. This prepares them for the next period of lactation.

### True Value Dairy Feed

is the best feed for Dairy Cows because it produces the greatest returns for the money invested.

The actual increase of the amount of milk is only one of the returns from feeding True Value Dairy Feed.

True Value Dairy Feed also repairs the broken-down tissues of the animal's body and maintains the *vital energy*.

Our chemists are experts on the subject of animal nutrition. They are at work continually in our modern laboratory testing and examining the ingredients of our feed. We are able to absolutely guarantee the following analysis, which shows *available* nutrients not merely total nutrients:

Protein . . .	(Minimum) 24%
Fat . . .	(Minimum) 5%
Carbohydrates (Minimum) 52%	
Fibre . . .	(Maximum) 10%

A trial will convince you that our feed will produce more and better results than any other on the market.

If your dealer does not carry True Value Feeds, write us and we will see that you are supplied.

**LADISH MILLING CO.**

Dept. C

MILWAUKEE, WIS.

Try a sack of Ladish Quality Flour. It makes more and better loaves of bread.

1-30

#### True Value PRODUCTS

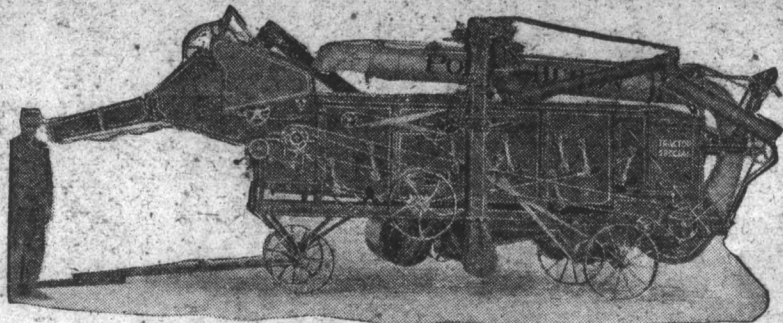
DAIRY FEED  
STOCK FEED  
HORSE FEED  
HOG FEED  
CHICK FEED  
DEVELOPER FEED  
SCRATCH FEED  
POULTRY MASH

AND  
**LADISH**  
QUALITY  
WHEAT FLOUR





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PORT HURON 20x34 TRACTOR SPECIAL THRESHER

This machine has good capacity and can be operated with any small steam engine, or gas tractor.

Will do excellent work in all kinds of seeds and grain, (including clover, timothy, alfalfa, peas, etc.) and is fully guaranteed the same as our standard size threshers.

Save your own grain; thresh when most convenient and accommodate

your neighbors. It will take only a small portion of your time in custom work to pay for the machine, as well as power to operate it. We can also furnish second-hand steam engines or tractor, to operate same.

18 Horse Power will run it.

We can ship from stock same day order is received. Write us for catalogue, or, if in a hurry, wire us at our expense.

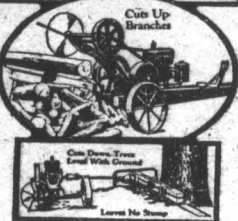
PORT HURON ENGINE & THRESHER CO., Port Huron, Mich.

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For 1½¢ a Cord—Wood is High; Coal Scarce!

Write at once for Big Special Offer and very Low Direct Factory Price on the famous OTTAWA Log Saw, greatest work-saver and money-maker ever invented. Does the work of 10 to 15 men.

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Pays for Itself As You Use It.

**310 Saw**  
Cuts a Minute  
Puts Over 4 H.P. Hopper cooled. Oscillating, Built-in Magnet no batteries ever needed. Easy to start in any weather. Automatic Speed Regulator. Saw blade easily removed. When not sawing, engine runs pumps, feed mill, cream separator, etc. Extra pulley furnished.

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\$2.50 Box guaranteed to give satisfaction or money back. \$1.50 Box sufficient for ordinary cases. (Includes War Tax.) MINERAL HEAVE REMEDY CO., 463 Fourth Ave., Pittsburgh Pa.

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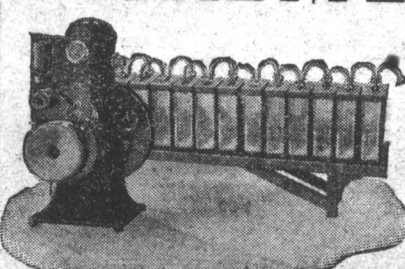
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No Backache  
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With a FOLDING SAWING MACHINE. 900 CORDS by ONE MAN in 10 hours. Send for Free catalog No. E44 showing low price and latest improvements. First order secures agency. Folding Sawing Mach. Co., 161 W. Harrison St., Chicago, Ill.

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Will skim to cent, or BET. what you buy a for—to save you ALL the butter-fat out of your milk. There are no 20 to 30 separate pieces for a farm-wife to wash twice a day, for the straight disc on the "Viking" is all connected, and washed as one piece, in a jiffy. Send for our latest catalog No. 153 Swedish Separator Company 507 So. Wells Street Chicago, Ill.

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## Farm Lighting Plant

A ½ k. w. generator directly connected with a 2 H. P. air cooled motor. Capacity 45 20-watt lamps. Willard storage battery. Dealers wanted. Write for particulars.

REGAL GASOLINE ENGINE CO. Division Street, Coldwater, Mich.

## Our Agricultural News

IN the western New York peach belt this fall, the crop reached maturity without the usual preparation of the railroads to handle it. Early in the shipping season there were five hundred cars needed a day to move the crop, with an actual supply of less than one hundred cars. Many peaches were placed in cold storage, but there was still remaining the prospect that the growers would sustain heavy losses unless more cars were provided. The interstate commerce commission was appealed to with no apparent results.

In this emergency the manager of the cooperative association which controls the marketing of the western New York peach crop, telegraphed to the Washington office of the American Farm Bureau Federation for assistance. Gray Silver, the Washington representative, took up the matter with the interstate commerce commission, and within twenty-four hours the number of available cars in the district was considerably increased and in five days the railroad was delivering enough cars to handle the crop, and the peaches were also moving out of cold storage.

Certain interests are conducting a propaganda to impress upon the minds of the people that there are vast quantities of wool stored not only in the United States, but in Australia, Argentina and other countries. Many such reports are appearing in the daily papers. Gray Silver, of the Farm Bureau Federation, points out that this surplus for the most part is coarse, low-grade wools for which there is little demand in this country and which has accumulated because of the inability of Germany and Australia to purchase the usual amounts used by their manufacturers.

THE American Farm Bureau Federation is pushing the German credit proposition. An extensive campaign will be made to bring the matter to the front in congress. Representatives of the German government in this country have said that the great need in Germany now is for our farm products, wool, wheat, meat, and other supplies from the farms. They would buy large quantities if congress would pass a bill giving Germany credit against the funds held here by the alien property custodian. There is a bill now pending in congress which relates to this German credit plan; but a new bill which it is believed will better meet the requirements, will be introduced early in the next session of congress.

The Economic Committee of the American Farm Bureau Federation is engaged in research work, studying personal credits and income tax legislation. All phases of taxation as they affect the farmers will be investigated for the purpose of formulating a program of action which will be referred to the farmers with the expectation that after careful study it will be reflected in the farmers' demands on congress.

Senator Oscar Underwood is authority for the statement that "no matter who is elected president, congress will be called into extra session late in March or early in April to revise the revenue laws and place the United States on a peace time financial basis. Our finances must be demobilized just as our army was."

If no tax revision legislation is undertaken in the session of congress which will convene soon after the election this fall, it will surely come up for action when the extra session is called in March. There are powerful influences working for repeal of the excess profits tax and equally powerful inter-

ests back of the Nolan bill, which is a single land tax measure. This bill of neat and homelike,

provides a flat tax of one per cent, in addition to all other taxes, upon all land values in excess of \$10,000, excluding, however, the value of all the buildings thereon. Commenting on the Nolan bill Gray Silver says that "usually but a very small proportion of the production capital of a manufacturing plant or business establishment is in land. Consequently the manufacturer and the business man would be largely exempted." The farmer, on the other hand, has the major portion of his business capital in land and would be taxed heavily. This bill proposes to tax the farmer on his principal tool of production, the very thing which the factory owner and the merchant ask to be exempted in their case." It will require the united efforts of all the farm organizations and the farm press co-operating on a well defined program of action, to protect the interests of the farmers when congress takes up the matter of tax revision.

THE war department in cooperation with the United States Department of Agriculture is conducting extensive experiments in nitrate fixation work at a large laboratory near Washington. This work was begun in April, 1919, by authority of the secretary of war, with an allowance of \$300,000 a year, and the results so far provide convincing evidence in favor of the operation of the Muscle Shoals nitrate plant. This plant, which cost \$72,000,000, is fully equipped with a capacity for producing by the cyanamid process an output of 40,000 tons of fixed nitrogen per year, an amount equal to 250,000 tons of Chilean nitrates. The plant was tested out in 1918, and a small quantity of fixed nitrogen produced, but since then it has remained idle, and "unless operated by the government or private interests will deteriorate rapidly, as does any unused industrial plant."

A party of farm paper correspondents and farm organization representatives visited the laboratory at Washington, a few days ago, and inspected the highly interesting and successful experiments now being carried on. The functions of this fixed nitrogen research laboratory are the investigation of methods of fixing nitrogen by the Haber, cyanamid, arc and other processes, and the investigation of methods of disposing of nitrogen projects in agriculture and other uses. A twenty-acre plot in Alabama is used in practical trials of the various forms of fixed nitrogen in actual crop production. In these experiments up-to-date cyanamid seems to show up equally as favorably as Chilean nitrates in crop growth. Cyanamid must be handled carefully, and tests are being made to find the best means of applying it to prevent damage to the plants. The experimenters used eighty pounds to the acre, which is much more than the farmer would use in field distribution. As cyanamid will not take the place of Chilean nitrates as a crop forcer, ammonium nitrate will be produced for this purpose.

In the experiments the cost of manufacturing has been considerably less than the prevailing prices of any form of nitrates now on the markets. Tests are being made to develop forms of nitrates, easy to handle, safe for the crops, and economical in production, also that may be used in combination with other fertilizing elements.—E. R.

Mike Oliver says that the best looking farm places are not always for sale. He figures out that the best way to sell a farm if you want to sell it or to enjoy keeping it if you want to keep it, is just to keep things looking sort of neat and homelike.



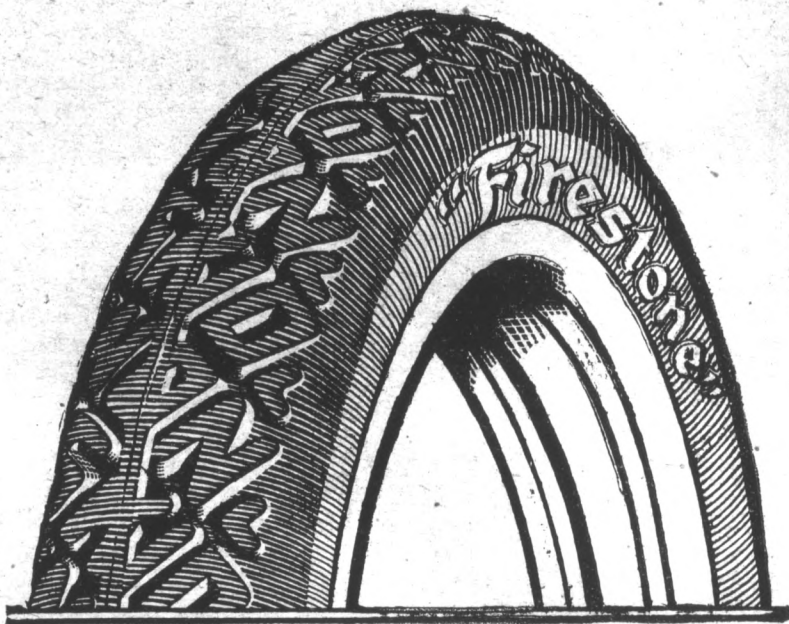
# Firestone

Buy a set of Firestone 3½-inch tires and discover the big feature behind their uniform service—perfect *balance*.

Firestone has devoted eighteen years to developing the *balanced* tire, giving light car owners more mileage at low cost—most miles per dollar.

The answer to getting more service and more *uniform* service out of all four tires is the Firestone 3½. It is more than thickness of tread or amount of rubber and fabric, greater cushioning or greater air capacity. It is proper *balance*—the way each of these component parts of a Firestone 3½ tire is made to co-ordinate.

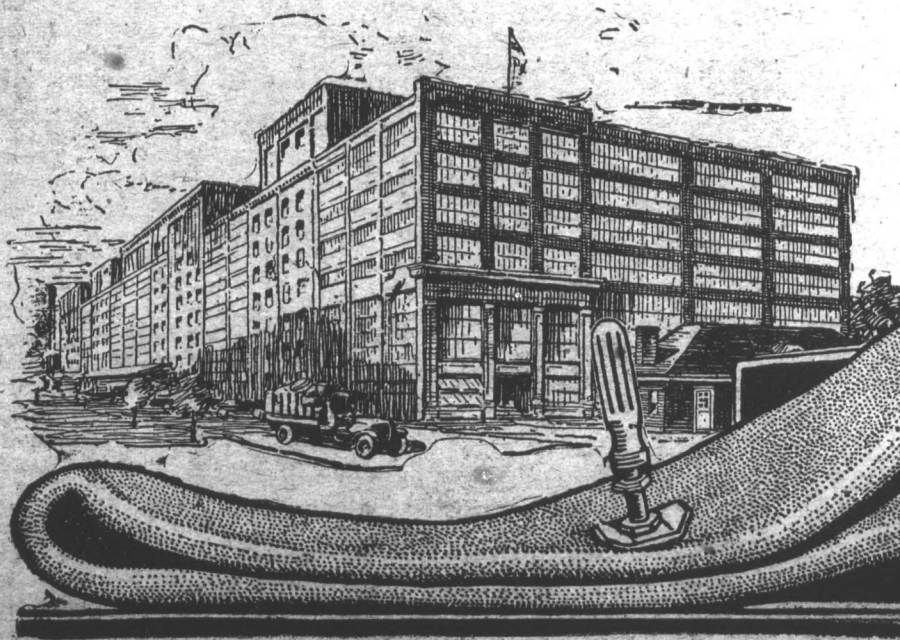
Sales of this tire increased 96% for the first six months of this year. The result justifies the effort because the stamp of approval has been set by the public on the Firestone 3½—the *balanced* tire.



**30x3½**  
(non-skid)

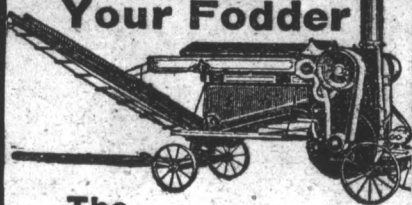
**\$22.50**

Gray Tube \$3.75  
Red Tube \$4.50





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### The Jenney Silo-Filler-Husker

saves the ears from going into the silo, doubling your profits each year. It husks fast and clean, loading the ears into the wagon while filling the silo or storing the cut stover in barn or loft. It handles either green or ripe corn, and can be used at any time after the busy fall rush work is over.

Stover Silage answers all silage needs. Hundreds of customers claim that with the Jenney Silo-Filler-Husker they get fully as good results as with full corn silage. Any of them will testify they will never again let an ear of corn go into their silos.

The Jenney Silo-Filler-Husker is in its sixth successful year. It is sold under guaranty to be exactly as represented and to do all claimed for it.

You profit as soon as you begin to use this money-making and time-saving machine. You lose money every season you are without it.

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that save your tie, time and temper.  
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## Our Service Department

### LATE MATURING LIMA BEANS.

Can you tell me what to do with my lima beans? The vines are full of green pods, but very few are ripe, and I am afraid they will not get ripe before frost. Can I shell the green ones and dry them so they will be good to cook? If so, how long will it require to dry them? Will a light frost spoil them?—Mrs. E. F. D.

If you much prefer to have the lima beans in the dry form, would advise you to let them remain on the vines as long as you can, or until a heavy frost occurs, unless they show maturity before the frost comes. If the pods turn brown before frost it is well to pick them off and shell the beans. They should not be kept in a place where there will be too many of them together until they have thoroughly cured.

If the beans do not mature before frost occurs you will find it better to can them than to attempt to dry them. However, it is not necessary for the pods to be thoroughly matured in appearance for the beans to be well enough matured to keep well after they are dried. With the lateness of the season, it would seem that you should be able to get them sufficiently matured so that you can keep them without canning. C. W. WARD.

### LEG WEAKNESS.

Why do my little chickens have leg weakness and what is the cause? Is there any way to prevent it?

Genesee Co. Mrs. C. H.

Leg weakness of little chicks is often caused by a lack of protein in the ration. Too much starchy feed seems to develop the body without increasing the strength of the bones. Mineral matter and protein are obtained by the chicks from drinking plenty of sour milk and eating beef scrap and ground bone in the dry mash. If you do not have time to mix up growing mash it might pay to buy a few hundred pounds of the commercial mash. They contain a balanced ration for the development of young chicks and many poultrymen are having success in using them.

Early hatched chicks often develop leg weakness from spending too much time on the hard brooder house floor. It does not occur often if the young chicks are from vigorous stock and fed on a ration containing plenty of bone building material. Our chicks have a free range and plenty of sour milk and no cases of leg weakness have appeared. We also give the chicks all the ashes from the brooder stoves and they seem to crave the bits of ash and mineral matter which they contain. R. G. K.

### DOG LAW.

What is the penalty for wounding or killing a dog that is running at large, and can the owner of the dog collect or sue for damage for dog being wounded or killed, whether license has been paid or not?—F. B. K.

Public Acts 1919 No. 339, known as the 1919 dog law, contains the following provisions:

Sec. 17. The sheriff shall also kill, on complaint from the prosecuting attorney, any dog that is in the habit of running at large unaccompanied by the owner or his agent.

Sec. 18. It shall be the duty of every police officer, on complaint, to kill any dog or dogs which are found outside of any incorporated city running

at large unaccompanied by owner or keeper.

Sec. 19. Any person may kill any dog which he sees in the act of pursuing, worrying, or wounding any live stock or attacking persons; and there shall be no liability on such person in damages or otherwise for such killing. Any dog that enters any field or enclosure outside of an incorporated city, unaccompanied by his owner or his owner's agent shall constitute a private nuisance, and the owner or tenant of such field or other enclosure, or his agent or servant, may kill such dog while it is in the field or other enclosure without liability for such killing. Except as provided in this section it shall be unlawful for any person other than a police officer to kill, injure, or attempt to kill or injure any dog which bears a license tag for the current year.

Sec. 26. Any person or police officer violating or failing or refusing to comply with any of the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction shall be sentenced to pay a fine not exceeding \$100, or imprisonment in the county jail not exceeding three months, or to both such fine and imprisonment at the discretion of the court.

Sec. 27. Nothing in this act shall be construed to prevent the owner of a licensed dog from recovery by action at law from any police officer or other person, the value of any dog illegally killed by such police officer or other person.

Sec. 28. Nothing in this act contained shall be construed as limiting the common law liability of the owner of a dog for damages committed by it.

C. L. 1915, Sec. 7271, also provides: The owner or keeper of any dog which has been chasing, worrying, wounding, or killing any sheep, lamb, swine, or cattle (not the property of such owner or keeper), out of his enclosure, or which has assaulted or bitten any person while peaceably walking or riding out of the enclosure of the owner or keeper, shall within forty-eight hours after having received notice thereof in writing, cause such dog to be killed. For every neglect so to do, he shall forfeit the sum of three dollars, and the further sum of one dollar and fifty cents for every forty-eight hours thereafter until such dog shall be killed, unless it shall satisfactorily appear to the court before which a suit shall be brought for the recovery of said penalty that it was not in the power of such owner or keeper to kill such dog. J. R. R.

### DIFFERENCE BETWEEN STOCKERS AND FEEDERS.

In regard to the article on "Uniform Live Stock Classes and Grades," in your issue of September 25, the question arises, what is the difference between a "stocker" and a "feeder?" Newaygo Co. J. G. R.

Feeders are cattle in such a state of development and flesh that they are suitable for placing immediately on a feed of grain so that they may be finished for market within a feeding period of two to six months. Stockers are younger cattle as a rule, lighter in weight and thinner in condition so that it is desirable to carry them upon a rough feed for a period before starting the feeding of grain. Usually cattle weighing over 750 or 800 pounds are feeders, while those weighing less than that amount are stockers. However, the degree of condition or flesh is more important than weight.—H.



### Healthy Grain

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2000 Ferrets they hustle rats and rabbits booklet and price list free. N. A. KNAPP & SON, R. 2, New London, Ohio.



## CRIMSON RAMBLERS HAVE MILDEW.

My crimson ramblers had pink blossoms this year and the leaves were covered with a sort of meal. What is the matter and what shall I do? Are the plants dying and losing vigor from this cause?

Ingham Co.

L. J. J.

The trouble with the roses is the rose mildew, caused by a fungus which is growing on the leaves and sapping their strength. This fungus (*Sphaerotheca pannosa*) is extremely common and the symptoms you describe fit its effects upon the rose very well. This mildew lives over winter in the cottony tufts which are formed about the thorns on the stems. It is advisable to trim the bush so as to rid it of these holdover places. Then in the summer when the temperature at noon gets above eighty-five or ninety degrees it is advisable to spray or dust the bushes frequently with some sulphur preparation. For a dust, fine sulphur in a cheesecloth bag or in a regular dusting outfit does good work. For spraying a dilute lime sulphur solution made by using the commercial lime sulphur at 1-40 strength is good. Weekly applications are advisable until the control has been accomplished. Sulphur is a specific for mildews, but it takes hot air conditions to make the sulphur active in killing the fungus.

G. H. C.

## TRANSFERRING OF BEES.

Can you give me any information regarding the transferring of bees from one hive to another?—Mrs. E. M.

Transferring of bees should be done any time from the beginning of fruit bloom to the end of the clover honey flow. It is not advisable to attempt to transfer bees during the late summer or fall. There are several methods of transferring, each of which I will very briefly describe.

## Direct Method.

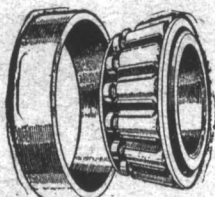
By this method the combs are cut out from the box hive or gum and the bees brushed from these combs into a modern hive which is placed in the exact location of the old hive. After the bees have all been transferred a queen excluding zinc should be placed over the entrance so that the queen cannot get out. This precaution will often prevent colonies from leaving the new hive. It is supposed that all of the frames in the new hive are fitted with full sheets of comb foundation. It is sometimes advisable to fill one of the frames with brood and honey taken from the old hive. This will provide food for a day or so and will usually prevent the colonies from leaving. This comb should later be removed. If the colony which is being transferred has any disease, then none of the comb should be taken to the new hive. Care must be used in this method, to see that at no time after the transferring the colony runs out of food.

## Slow Method.

This is a method which is very popular with many beekeepers because of its simplicity. First remove a portion of the brood comb from the center of the hive to be transferred, examine it carefully for disease and if any disease is found this colony cannot be transferred by this method. If free from disease tip the old hive upside down and set the new hive on top, placing a good cover over it. Before placing the new hive on top remove as much of the wood from the sides of the old hive as possible so as to let the light slip in between the combs. Bees do not like to work where exposed to the light and they will therefore abandon the old hive much sooner and move up and take possession of the new one. The Michigan Agricultural College, Department of Entomology, is prepared to furnish to beekeepers a complete bulletin on the subject of transferring.

B. F. KINDIG.

## Do You Know—



**STANDARD PRACTICE**  
The use of Timken Tapered Roller Bearings at points of hard service in the great majority of motor-vehicles is proof of leadership established on the tapered principle of design, quality of manufacture, performance on the road, and service to the automotive industry.

*that* the farmer who buys his motor car on a guesswork basis is as likely to be disappointed as if he sold his produce without seeing it weighed?

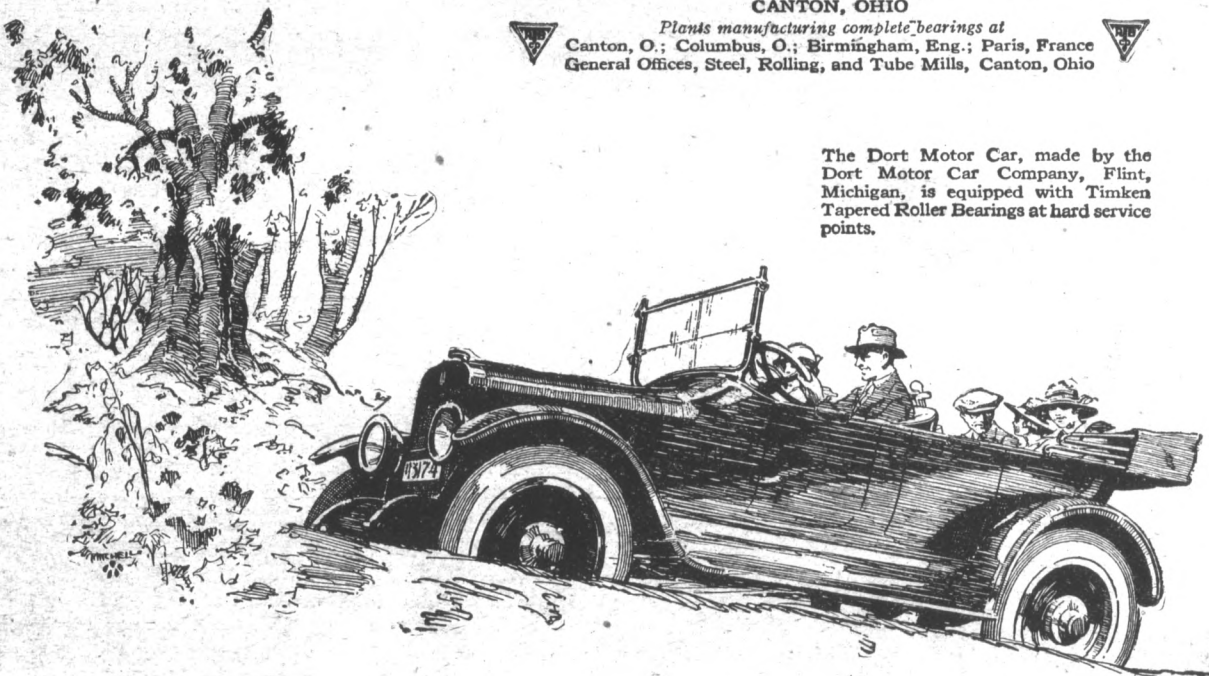
*that* the use of Timken Tapered Roller Bearings is always an indication that the motor car builder is aiming at *quality*?

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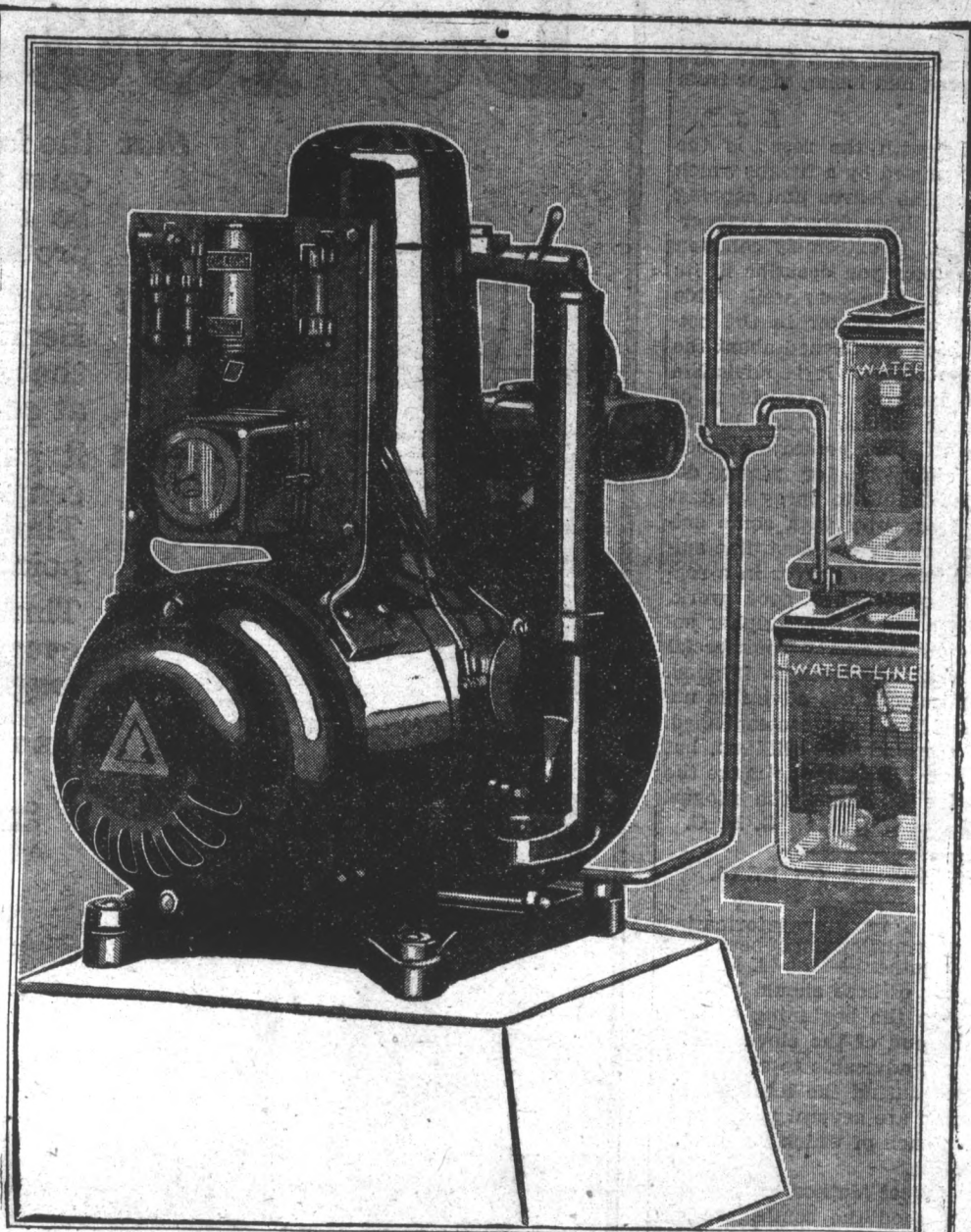




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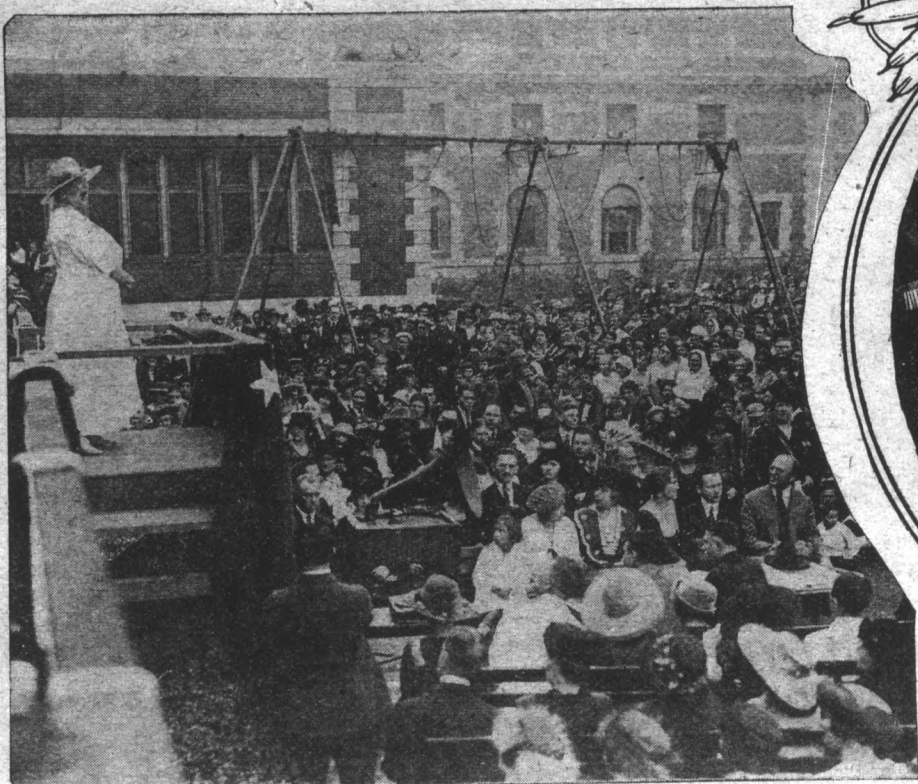
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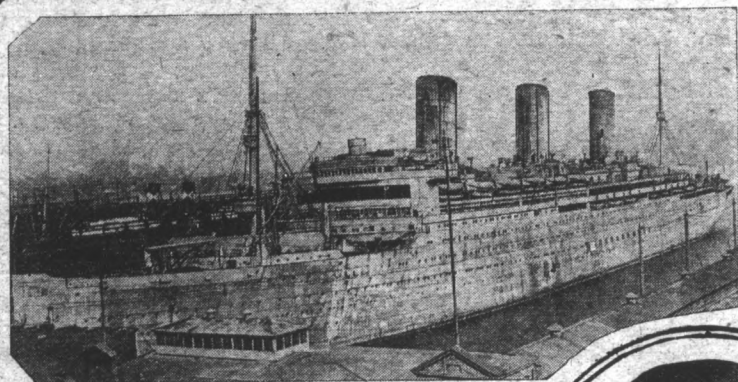
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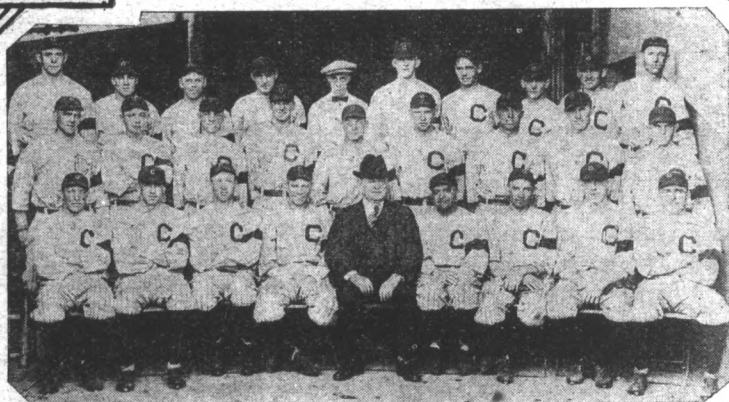
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# THE VALLEY OF THE GIANTS

A ROMANCE OF THE REDWOODS

By Peter B. Kyne



Buck insisted on keeping an engagement to dine with Moira, and Bryce agreed to call for him at the Bon Gusto restaurant. Then Bryce went home to dine with his father. Old Cardigan was happier than his son had seen him since the return of the latter to Sequoia.

"Well, sonny, I've had a mighty pleasant afternoon," he declared as Bryce led him to the dinner-table. "I've been up to the Valley of the Giants."

"Bryce was amazed. 'Why, how could you?' he demanded. 'The old skid-road is impassable, and after you leave the end of the skid-road, the trail in to mother's grave is so overgrown with buckthorn and wild lilac I doubt if a rabbit could get through it comfortably.'"

"Not a bit of it," the old man replied. "Somebody has gone to work and planked that old skid-road and put up a hand-railing on each side, while the trail through the Giants has been grubbed out and smoothed over. All that old logging-cable I abandoned in those choppings has been strung from tree to tree alongside the path on both sides. I can go up there alone now, once George sets me on the old skid-road; I can't get lost."

"How did you discover this?" Bryce demanded.

"Judge Moore, representing the new owner, called round this morning and took me in tow. He said his client knew the property held for me a certain sentimental value which wasn't transferred in the deed, and so the Judge had been instructed to have the skid-road planked and the forest trail grubbed out—for me. It appears that the Valley is going to be a public park, after all, but for the present and while I live, it is my private park."

"This is perfectly amazing, partner."

"It's mighty comforting," his father admitted. "Guess the new owner must be one of my old friends—perhaps somebody I did a favor for once—and this is his way of repaying. Remember the old sugar-pine windfall we used to sit on? Well, it's rotted through, and bears have clawed it into chips in their search for grubs, but the new owner had a seat put in there for me—just the kind of seat I like—a lumberjack's rocking-chair made from an old vinegar-barrel. I sat in it, and the Judge left me, and I did a right smart lot o' thinking. And while it didn't lead me anywhere, still I—er—"

"You felt better, didn't you?" his son suggested.

John Cardigan nodded. "I'd like to know the name of the owner," he said presently. "I'd like mighty well to say thank you to him. It isn't usual for

people nowadays to have as much respect for sentiment in an old duffer like me as the fellow has. He sort of makes me feel as I hadn't sold at all."

Buck Ogilvy came out of the Bon Gusto restaurant with Moira, just as Bryce, with George Sea Otter at the wheel of the Napier, drove up to the curb. They left Moira at her boarding house, and rolled noiselessly away.

At nine o'clock they arrived at Cardigan's log-landing, and found Jim Harding, the bull-donkey engineer, placidly smoking his pipe in the cab. Bryce hailed him.

"That you, Jim?"

"You bet."

"Run up to Jabe Curtis's shanty, and tell him we're here. Have him gather his gang and bring two pairs of overalls and jumpers—large size—with him when he comes."

Harding vanished into the darkness, and Buck Ogilvy climbed up into the cab and glanced at the steam-gauge. "A hundred and forty," he announced. "Good enough!"

Presently the woods-boss, accompanied by thirty of his best men, came down to the log-landing. At Bryce's order they clambered aboard the engine and tender, hanging on the steps, on the roof of the cab, on the cow-catcher—anywhere they could find a toe-hold. Harding cast aside the two old ties which the careful engine-crew had placed across the tracks in front of the drivers as additional precaution; Buck Ogilvy cut off the air; and the locomotive and tender began to glide slowly down the almost imperceptible grade. With a slight click it cleared the switch and slid out onto the Cardigan lateral, swiftly gathering speed. A quarter of a mile down the line Buck Ogilvy applied the brakes and eased her down to twenty miles per hour.

At the junction with the main line Buck backed briskly up into the Laguna Grande woods, and coupled to the two loaded flat-cars. The woods-gang scrambled aboard the flats, and the train pulled out for Sequoia. Forty minutes later they rumbled down Water Street and slid to a grinding halt at the intersection of B Street.

From the darkness of Cardigan's dry-ing-yard, where they had been waiting twenty picked men of the mill-crew now emerged, bearing lanterns and tools. Under Buck Ogilvy's direction the dirt promptly began to fly, while the woods-crew unloaded the rails

and piled them close to the sidewalk.

Suddenly a voice, harsh and strident with passion, rose above the thud of the picks and the clang of metal.

"Who's in charge here, and what in blazes do you mean by cutting my tracks?"

Bryce turned in time to behold Colonel Seth Pennington leap from an automobile and advance upon Buck Ogilvy. Ogilvy held a lantern up to the Colonel's face and surveyed Pennington calmly.

"Colonel," he began with exasperating politeness, "—I presume you are Colonel Pennington—my name is Buchanan P. Ogilvy, and I am in charge of these operations. I am the vice-president and general manager of the N. C. O., and I am engaged in the blithe task of making a jump-crossing of your rails. I had hoped to accomplish this without your knowledge or consent, but now that you are here that hope, of course, has died a-borning. Have a cigar." And he thrust a perfecto under the Colonel's nose. Pennington struck it to the ground and on the instant, half a dozen rough rascals emptied their shovels over him. He was deluged with dirt.

"Stand back, Colonel, stand back if you please. 'You're in the way of the shovellers,' Buck Ogilvy warned him soothingly.

Bryce Cardigan came over, and at sight of him Pennington choked with fury. "You—you—" he sputtered, unable to say more.

"I'm the N. C. O.," Bryce replied. "Nice little fiction that of yours about the switch-engine being laid up in the shops and the Laurel Creek bridge being unsafe for this big mogul." He looked Pennington over with frank admiration. "You're certainly on the job, Colonel. I'll say that much for you. The man who plans to defeat you must jump far and fast, or his tail will be trod on."

"You've stolen my engine," Pennington almost screamed. "I'll have the law on you for grand larceny."

"Tut-tut! You don't know who stole your engine. For all you know, your own engine-crew may have run it down here."

"I'll attend to you, sir," Pennington replied, and he turned to enter Mayor Poundstone's little flivver.

Not tonight, at least," Bryce retorted gently. "Having gone this far, I would be a poor general to permit you to escape now with the news of your

discovery. You'd be down here in an hour with a couple of hundred of your mill-crew and give us the rush. You will oblige me, Colonel Pennington, by remaining exactly where you are until I give you permission to depart."

"And if I refuse—"

"Then I shall manhandle you, truss you up like a fowl in the tonneau of your car, and gag you."

To Bryce's infinite surprise the Colonel smiled. "Oh, very well!" he replied. "I guess you've got the bulge on me, young man. Do you mind if I sit in the warm cab of my own engine? I came away in such a hurry I quite forgot my overcoat."

"Not at all. I'll sit up there and keep you company."

Half an hour passed. An automobile came slowly up Water street and paused half a block away, evidently reconnoitering the situation. Instantly the Colonel thrust his head out the cab window.

"Sexton!" he shouted. "Cardigan's cutting in a crossing. He's holding me here against my will. Get the mill-crew together and phone for Rondeau and his woods-crew. Send the switch-engine and a couple of flats up for them. Phone Poundstone. Tell him to have the chief of police—"

Bryce Cardigan's great hand closed over the Colonel's neck, while down Water street a dark streak that was Buck Ogilvy sped toward the automobile, intending to climb in and make Pennington's manager a prisoner also. He was too late, however. Sexton swung his car and departed at full speed down Water street, leaving the disappointed Buck to return panting to the scene of operations.

Bryce Cardigan released his hold on Pennington's neck. "You win, Colonel," he announced. "No good can come of holding you here any longer. Into your car and on your way."

"Thank you, young man," the Colonel answered, and there was a metallic ring in his voice. He looked at his watch in the glare of a torch. "Plenty of time," he murmured. "Curfew shall not ring tonight." Quite deliberately he climbed into the mayor's late source of woe and breezed away.

Colonel Pennington did not at once return to his home, however. Instead, he drove up to the business center of the town. The streets were deserted, but one saloon—the Sawdust Pile—was still open.

Pennington strode through the bar and into the back room, where a number of poker-games were in progress. For a moment he stood, his cold, ophidian glance circling the room until it came to rest on no less a personage

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—By Frank R. Leet





than the Black Minorca, an individual with whom the reader has already had some slight acquaintance. It will be recalled that the Black Minorca led the futile rush against Bryce Cardigan that day in Pennington's woods.

The Colonel approached the table where the Black Minorca sat thumbing the edges of his cards, and touched the cholo on the shoulder. The Black Minorca turned, and Pennington nodded to him to follow; whereupon the latter cashed in his chips and joined his employer on the sidewalk. Here a whispered conversation ensued, and at its conclusion the Black Minorca nodded vigorously.

"Sure!" he assured the Colonel. "I'll fix 'em good and plenty."

Together Pennington and the Black Minorca entered the automobile and proceeded swiftly to the Laguna Grande Lumber Company's mill-office. From a locker the Colonel produced a repeating rifle and three boxes of cartridges, which he handed to the cholo, who departed without further ado into the night.

Twenty minutes later, from the top of a lumber-pile in Cardigan's drying-yard, Bryce Cardigan saw the flash of a rifle and felt a sudden sting on his left forearm. He leaped around in front of the cowcatcher to gain the shelter of the engine, and another bullet struck at his feet and ricocheted off into the night. It was followed by a fusillade, the bullets kicking up the freshly disturbed earth among the workers and sending them scurrying to various points of safety. In an instant the crossing was deserted, and work had been stopped, while from the top of the adjacent lumber-pile the Black Minorca poured a stream of lead and filthy invective at every point which he suspected of harboring a Cardigan follower.

"I don't think he's hurt anybody," Buck Ogilvy whispered as he crouched with Bryce beside the engine, "but that's due to his marksmanship rather than his intentions."

"He tried hard enough to plug me," Bryce declared, and showed the hole through his sleeve. "They call him the Black Minorca, and he's a mongrel greaser who'd kill his own mother for a fifty-dollar bill."

"I'd like to plug him," Buck murmured regretfully.

"What would be the use? This will be his last night in Humboldt County—"

A rifle shot rang out across the side of B Street; from the lumber-pile across the street, Bryce and Ogilvy heard a suppressed grunt of pain, and a crash as of a breaking board. Instantly out of the shadows George Sea Otter came padding on velvet feet, rifle in hand—and then Bryce understood.

"All right, boss," said George simply as he joined Bryce and Ogilvy under the lee of the locomotive. "Now we get busy again."

"Safe-o, men," Ogilvy called. "Back to the job." And while Bryce, followed by the careless George Sea Otter, went into the lumber-yard to succor the enemy, Ogilvy set an example to the men by stepping into the open and starting briskly to work with a shovel.

At the bottom of the pile of lumber the Black Minorca was discovered with a severe flesh-wound in his right hip; also he was suffering from numerous bruises and contusions. George Sea Otter possessed himself of the fallen cholo's rifle, while Bryce picked the wretch up and carried him to his automobile.

"Take the swine over to the Laguna Grande Lumber Company's hospital and tell them to patch him up," he ordered George Sea Otter. "I'll keep both rifles and the ammunition here for Jules Rondeau and his woods-gang. They'll probably be dropping in on us about two a. m., if I know anything about Colonel Pennington's way of doing things." (Continued on next page).

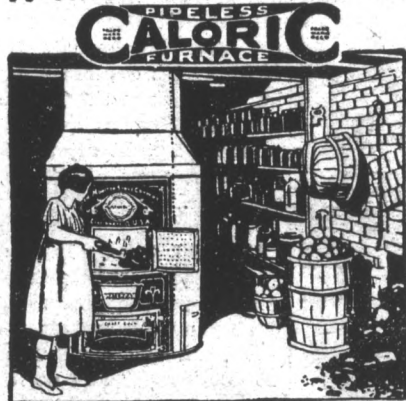


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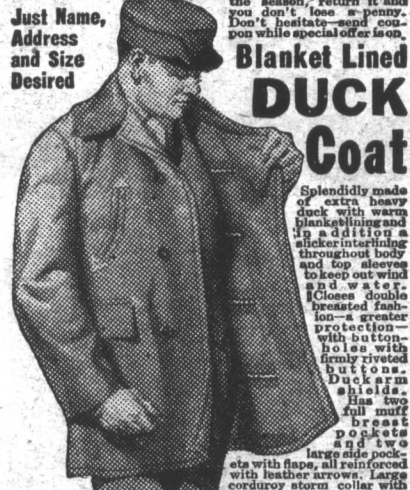
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## Men and Trees

Our Weekly Sermon—By N. A. McCune

TREES talk to us of strength. Did you ever watch an oak or an elm battling with a storm? It is worth watching. As one blast of wind followed another, the tree was ready. A branch might break, the top might be carried away, but the body of the tree stood firm. It had been preparing for that battle, for years. Far below, the roots, like military reserves, were called for special duty. A thousand, a million of them, spreading in all directions, were holding the trunk firmly in its place. That is a symbol of the strength of the man whose trust is in God. The roots of faith and trust go far into the bosom of God. "Though an host should encamp against me, my heart shall not fear." "God is our refuge and strength."

Trees become strong by resistance. A furniture manufacturer states that the March winds make the best grain, and the grain is developed when the tree springs back, after a gust of wind. People who are never called on to resist, are under-developed in character. A young man who was in France with the American army, recently had this told of him, by his pastor. He was a sergeant, and his captain was an immoral man, openly and brazenly. The sergeant rebuked him for the example he was setting his men. No non-commissioned man is supposed to reprimand an officer, and it went hard with the sergeant. He was reduced to the ranks, and life was made miserable for him. He bore it in grim silence. One day his captain sent for him. Said he: "I've been thinking about this and the way I've treated you. I'm going to live straight after this. Tomorrow you take your old place, as first line sergeant."

TREES grow. It is an impressive moment when a tree is felled, and you count the rings. The record of each year's growth is there. No year has been left out. There have been no "off years," and no idle ones. Looking back can we say that each year has added to our growth? Or have we stood stationary? There are people, not a few of them, who have not grown a particle for twenty years in anything except age, and they will deny even that. They have the same notions they had years ago. They have not broadened, greatened in any particular. Such persons may well go to the nearest oak and learn one of the great lessons of life.

A TREE grows because it remains in one place. A squash vine wanders aimlessly over the ground, but the oak, the elm, the white pine attain height. A tumbleweed will travel farther in

a season than a tree will in a hundred years. The tree devotes its energies to traveling upward. It specializes in altitude. And trees for that reason are the symbol of aspiration. They get the far look. They typify large and high ideals. As Joyce Kilmer said, "A tree that looks at God all day, and lifts its leafy arms to pray." An eminent writer says that this generation of Americans is prone to wander in the direction where the greatest excitement lies. We are not given to steady, upward development which creates the finest manhood. The trees in our front yard will teach us better.

THE tree is a parable of life. In spring it puts forth new life. In summer it bears its burden of fruit, or spreads its shade for the tired traveler. In autumn, it ceases toil, drops its leaves and prepares for rest. There is no haste, no hurry, and there are no regrets. Everything is done at the proper season. And there are the seasons of the soul. Neglect them, and the loss can never be fully replaced. There is the season of childhood, when religious impressions remain, are planted in the soul. Then comes the age of adolescence, when most of life's great choices are made. And adulthood follows fast, with its burdens and its toil. Trees exhibit forethought, frequently to a far greater degree than their human neighbors. When autumn comes, they prepare for winter. Firs are warmly clad, while deciduous trees drop their leaves, so that with naked branches they may, like athletes, wrestle with the winds and blasts of February and March. The sap recedes to a large extent, into the inner parts of the trunk and the root system. Thus prepared, they can say to Father Winter, come on! Let the winds blow, let the blizzards rave, let the mercury descend, we are ready! I say, humans are not all as wise as that. They do not prepare for the inevitable. And a man is a fool, he is a simpleton, who, knowing that death, eternity, are before him, makes no preparation to that end. The dumb, immovable, unfeeling tree in yonder field exhibits more intelligence than he.

Trees speak to us of eternity. They are solemn. They have their own language, in which they seem to converse of the mighty matters of life, death, and immortality. The oak roars, elms and maples speak out plainly, while the tall white pines whisper to each other in a tongue that has no oaths, and contains no unclean thoughts. They are like a race of clean men, whom sin has not marred. "The righteous shall flourish like a palm tree," says the Psalmist.

## The Valley of the Giants

(Continued from preceding page).

### CHAPTER XXXI.

HAVING dispatched the Black Min-  
orca to hold up the work until the arrival of reinforcements, Colonel Pennington fairly burned the streets en route to his home. He realized that there would be no more sleep for him that night, and he was desirous of getting into a heavy ulster before venturing forth again into the cool night air.

The violent slam with which he closed the front door after him brought Shirley, in dressing-gown and slippers, to the staircase.

"Uncle Seth!" she called.

"Here!" he replied from the hall below.

"What's the matter?"

"There's the devil to pay," he an-

swered. "That fellow Cardigan is back of the N. C. O., after all, and he and Ogilvy have a gang of fifty men down at the intersection of Water and B streets, cutting in a jump-crossing of our line."

He dashed into the living-room, and she heard him calling frantically into the telephone.

"At last!" she murmured, and crept down the stairs, pausing behind the heavy portieres at the entrance to the living-room.

"That you, Poundstone?" she heard him saying rapidly into the transmitter. "Pennington speaking. Young Bryce Cardigan is behind that N. C. O. outfit, and it's a logging-road and not intended to build through to Grant's Pass at all. Cardigan and Ogilvy are at Water and B streets this very in-



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stant with a gang of fifty men cutting in a jump-crossing of my line, curse them! They'll have it in by six o'clock tomorrow morning if something isn't done—and once they get it in, the fat's in the fire.

"Telephone the chief of police and order him to take his entire force down there if necessary, and stop that work. To blazes with that temporary franchise! You stop that work for two hours, and I'll do the rest. Tell the chief of police not to recognize that temporary franchise. He can be suspicious of it, can't he, and refuse to let the work go on until he finds you? And you can be hard to find for two hours, can you not? Delay, delay, man! That's all I want. . . . Yes, yes, I understand. You get down about daylight and roast the chief of police for interfering, but in the meantime! Thank you, Poundstone, thank you. Good-bye."

He stood at the telephone, the receiver still held to his ear and his right forefinger holding down the hook while the line cleared. When he spoke again, Shirley knew he was calling his mill-office. He got a response immediately, notwithstanding the lateness of the hour.

"Sexton? Pennington speaking. I've sent over the Black Minorca with a rifle and sixty rounds of ammunition. . . . What? You can hear him shooting already? Bully boy with a crockery eye! He'll clean that gang out and keep them from working until the police arrive. You've telephoned Rondeau, have you? . . . Good! He'll have his men waiting at the logging, and there'll be no delay. As soon as you've seen the switch-engine started for the woods, meet me down at Water and B streets. Sexton, we've got to block them. It means a loss of millions to me if we fail."

Shirley was standing in the doorway as he faced about from the telephone. "Uncle Seth," she said quietly, "use any honorable method of defeating Bryce Cardigan, but call off the Black Minorca. I shall hold you personally responsible for Bryce Cardigan's life, and if you fail me, I shall never forgive you."

"Silly, silly girl!" he soothed her. "Don't you know I would not stoop to bushwhacking? There's some shooting going on, but it's wild shooting, just to frighten Cardigan and his men off the job!"

"You can't frighten him," she cried passionately. "You know you can't. He'll kill the Black Minorca, or the Black Minorca will kill him. Go instantly and stop it."

(Continued next week).

## Sunshine Hollow Items

By Rube Rubicon

Tragedy recently entered the Slumpkins home. Old Ned Slumpkin came out of the barn with his face drawn white. Little Wilson Slumpkin screamed in pain. Sister Bedelia buried her face in her hands and wept. The back tire on the Nubbin had blown up. They had no spare tire and only a half hour to get over to the lake in time for the picnic dinner.

Percy Ivory has been kicked off the steps at Tinkers seven times. He says he is beginning to believe that old man Tinker doesn't want him to call on Margorie any more. Old Thomas Tinker is a rabid Republican and Percy is going to get even by pasting pictures of Gov. Cox all over the Tinker house where Thomas can't reach 'um.

Little Theda Morgan said, "Oh, the devil," right out loud when the aid society was meeting at Morgan's place. Mrs. Morgan said, "Why, Theda, where did you ever hear such language?" Theda innocently replies, "Don't you remember what you said yesterday, Mamma, when you dropped the custard pie?"



R.R.#1, Willowstreet, Pa.  
August 28, 1920.

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Milwaukee, Wisconsin.

Gentlemen:-

In answer to your recent inquiry, I am pleased to state that my Milwaukee Air Power System is operating most satisfactorily, supplying us with both hard and soft water.

I think one of the best features of the system is that you can install it on a small scale and increase its capacity and uses from time to time.

Of course the fact that it gives you perfectly fresh water direct from the well at all times, is a grand big feature too.

There are dozens in this neighborhood that will say the same as I.

Yours truly,

Mr. K. Huber

## "Install on Small Scale, Increase Later" —is the feature Mr. Huber likes especially

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But all of them—to a man—are enthusiastic about the *Expert* who was responsible for their discovering that this feature existed and would overcome their handicaps.

Near you there is an *Expert*—our representative—able to cope with all water and light problems. He will help you without charge. Let us send you his name and address—and our literature.

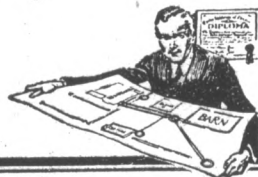
Milwaukee Air Power Pump Co.  
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**Pullets and cockerels.** From thorough-bred Baron White Leghorns the type that are bound to make good producers. Raised on free range. Every bird guaranteed and shipped on approval. Send for prices and catalog. A few Barred Rock Pullets. Brummers Poultry Farm, Holland, Mich.

**BARRED ROCKS.** Park's 200-egg strain which will produce fine layers next year. \$3 each. **R. G. KIRBY, R. 1, East Lansing, Mich.**

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Both combs. Special discount on early orders. Write for Price List. **INTERLAKES FARM, Box 39, Lawrence, Mich.**

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**Silver Laced Golden and White Wyandotte eggs** from best quality only \$1.75 per 15, \$3.25 per 30 by prepaid parcels post. **C. W. BROWNING, R. 2, Portland, Mich.**

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Cockerels from our exhibition matings, April hatched \$3.50 each. Four fine cock birds \$5.00 each. **SUNNYBROOK POULTRY FARM, Hillsdale, Mich.**

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Are the best all purpose birds being year round layers, Egg and chicks and a few good males. **H. H. JUMP, Jackson, Michigan.**

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White Pekin Ducks, R. C. Br. Leghorns. Order early. **Mrs. CLAUDIA BETTS, Hillsdale, Mich.**

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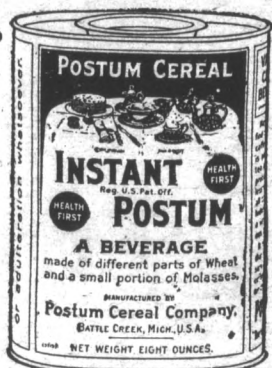
and you'll like it better than coffee because it is a table drink of satisfying flavor, with no after regrets, and it costs less.

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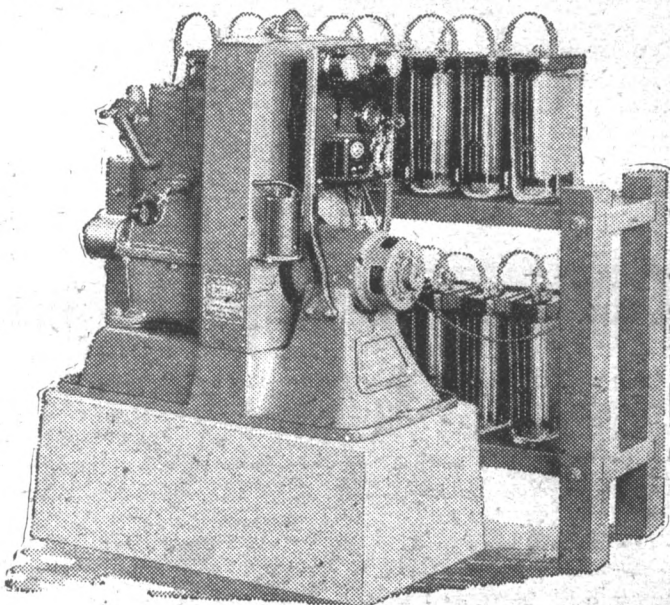
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## Woman's Interests

### Seeing and Hearing

MODERN efficiency sharks are telling us that we use only ten per cent of our brains. If we would but exercise the dormant ninety per cent, there is no height too high for us to scale, no depth too deep for us to plumb, according to men who go about making a living telling the rest of us how to succeed. We have eyes to see, but we see not, ears to hear but we hear not, is the crushing indictment hurled at us, and therein lies our failure to forge ahead.

Everyone who has ever taught school or had any experience with humanity in the mass, knows that the last statement is true. Announce a lesson to a class, and five minutes after the children return to their seats nine out of ten hands will be wildly waving and Johnnie and Mary will be asking what tomorrow's lesson is to be. Probably half of the class will insist that you didn't give out any. Make a statement before the whole room full of children today, and tomorrow not more than one can give a correct version of what you said. Half may be able to give a more or less garbled account, and the other half will swear they never heard anything about it.

Grownups are no better. Who can tell on Monday more than an occasional remark the preacher made on Sunday? Even the announcements are mixed. Was the social to be on Tuesday or on Thursday night? You don't know because you didn't hear. And you didn't hear—not because you are deaf—but because only one tiny brain cell was concerned with listening, and the rest absorbed in something else. We don't concentrate on the thing in hand. That is the real reason for

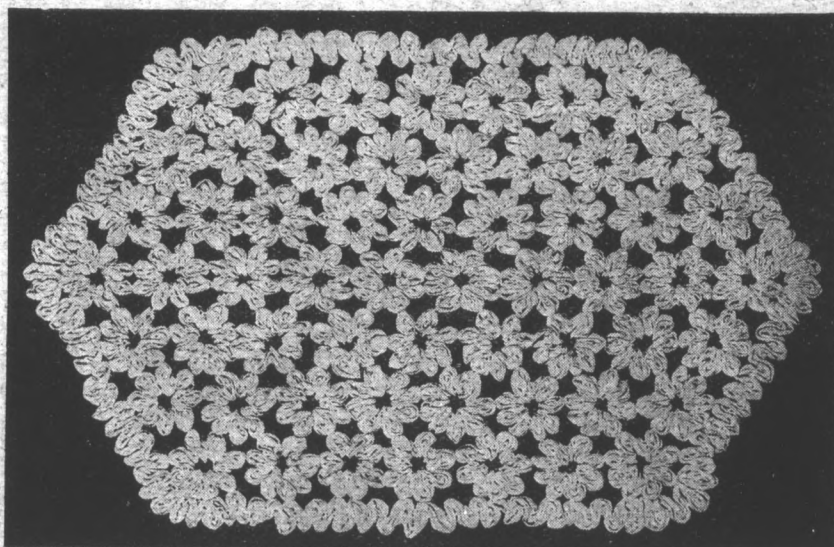
most failures. Instead of doing the thing of the moment and doing it right we let our attention wander to the next job to be done or the next pleasure to be enjoyed.

Without a doubt, concentrating on your own particular job brings you to success. Using your eyes to the extent of their power, seeing, too, what makes your neighbor forge ahead while you stay in a rut, this is one big factor in success. You can use your ears, too, to listen to everything which bears on your job. Listen to suggestions and to criticisms, whether they are made in kindness or not. One big help to failure is to shut our ears to criticism. None of us really enjoy having our faults pointed out, but if we really want to grow, there is one of the best aids known to man. It hurts, of course, sometimes, but only the foolish refuse to profit by it.

Listening is a habit which mothers should try to inculcate in children. How much nervous energy we waste telling them the same thing over and over again. I wonder if their lack of attention is not largely due to our own? Do we stop what we are doing and insist on their attention when we give a command or make a request? Or do we shout it over our shoulder as we hurry by them, intent on our job, while they are equally as intent on their own? I wonder if we took the orders of the day given out to boys and girls who were required to sit still and listen, if we could get through a day with just once telling? It would be worth trying a few times at least.

DEBORAH.

### Daisy Table Mat —By Helen Combes



THIS mat is one of a set made to protect a polished table top from hot dishes. It is simple and inexpensive, the daisies being made from white linen or cotton tape, and the centers from yellow cotton perle.

The tape is gathered by running a thread across it diagonally, until when gathered up, it forms eight petals beginning with half a petal, seven whole petals, half a petal. Join the two half petals together neatly underneath.

The set of mats consists of two mats drawing the daisy so that the petals are close together in the center.

With the cotton perle, sew the petals together in the middle and cover the

sewing on the right side with five French knots. Sew each daisy to its neighbor by two petals, ten daisies in the center, then sew two next rows by one petal each, to the center and to each other, the second row from center consisting of nine daisies, the third row of eight daisies and the fourth of seven daisies. The outer edge is made of a row of tape with the diagonal gatherings.

The set of mats consists of two mats the size of the one shown, two beginning in the middle with nine daisies and ending with six, and two beginning with eight and ending with six.



## MACHINERY OF GOVERNMENT.

STATE officers in Michigan hold office for two years, their term beginning on January 1 in odd years. They are elected every two years at the November elections and are governor, lieutenant-governor, secretary of state, state treasurer, auditor-general, attorney-general, superintendent of public instruction, and state highway commissioner.

Besides these officers who are elected by the people, we have several appointed by the governor with the approval of the state senate. These appointed officers are commissioner of insurance, commissioner of state, commissioner of labor, banking department, state librarian, state inspector of oils, state veterinarian, dairy and food commissioner and board of mediation and conciliation. This last board has a commissioner at a fixed salary, and one other member who is paid for the time he works. Justices of the supreme court, regents of the university, members of the state board of education, and members of the state board of agriculture are elected at the spring elections.

The supreme court judges are eight in number, one being chief justice, and are elected two every two years, for a

## DID YOU?

BY MIGNON M. QUAM.

Did you ever eat a school lunch that was cold  
And lay on your stomach like a load of lead?  
Did you ever try to study after that  
And find there's nothing working in your head?  
Did you ever watch your father heat the food  
The pigs, and cows, and chickens had to eat?  
Did you ever stop to ask the reason why?  
Did he answer, "Boy, they gotta have some heat?"  
Did you ever get to thinking kids might have  
A need of something warm, like pigs and cows?  
You didn't? Well, we youngsters have, you bet.  
And we can tell you grownups all just how  
To keep us well and help to learn and do  
Our work at school with vim and strength and punch.  
Give us a stove, some dishes, groceries, too,  
And let us have at noon a hot school lunch.

term of eight years. The court holds four terms each year in Lansing, commencing the first Tuesday after the first Monday in January, April, June and October. Two justices will be chosen at the spring election of 1921.

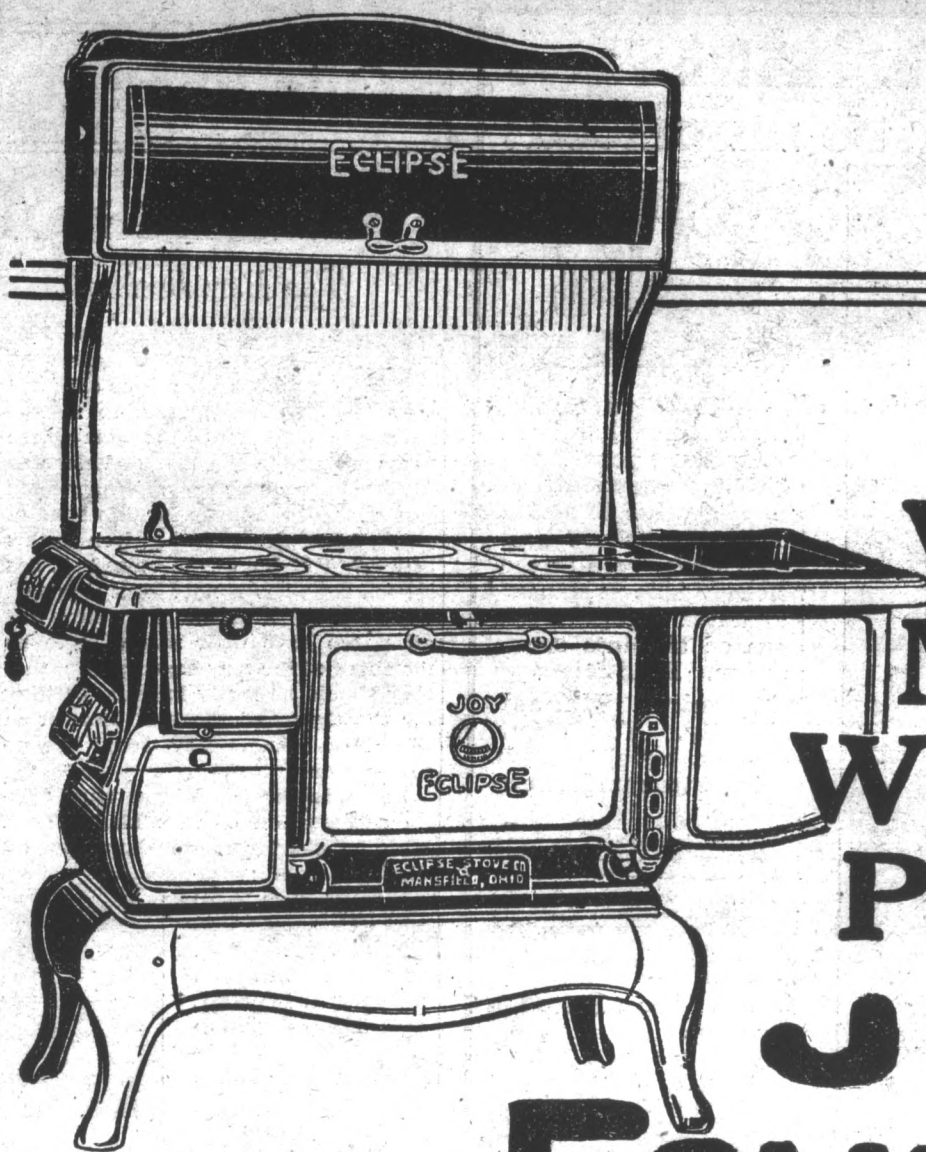
The regents of the university are chosen, two every two years in odd years, and are eight in number. Their duty is to manage the state university at Ann Arbor.

Members of the board of agriculture, who control the destinies of the state agricultural college at East Lansing, are six in number, also elected at the spring elections in odd years. The superintendent of public instruction is a member of both the state board of agriculture and the board of regents by virtue of his office.

The state board of education has supervision of the state normal college and normal schools. It consists of six members, elected for terms of six years.

I have discovered that macaroni will cook perfectly, and is easy to drain if placed in a wire frying basket and immersed in boiling water.—M. A. P.

When poaching eggs whirl the water rapidly and while it is still in motion drop in the egg. If a little salt has been added to the water the edge of the egg will keep round and smooth.—Mrs. J. J. O'C.



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## Accurate Oven Thermometer

No more testing. Steady heat, gauged by thermometer, to fit the recipe.

## White Enamel

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Oven heat is scientifically distributed, easily regulated and kept at just the right temperature.

Hot-all-over top means that every inch of the top is cooking space; a great saving in time and fuel. Smooth polished castings, white enamel splashers and oven doors make this stove easy to keep clean and new looking.

See your dealer. He will be glad to show you these and many other desirable features of Joy Eclipse Ranges.

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Mr. A. V. Hinkley, Pres. Onaway Bank has charge of them or write me.

## THAD B. PRESTON,

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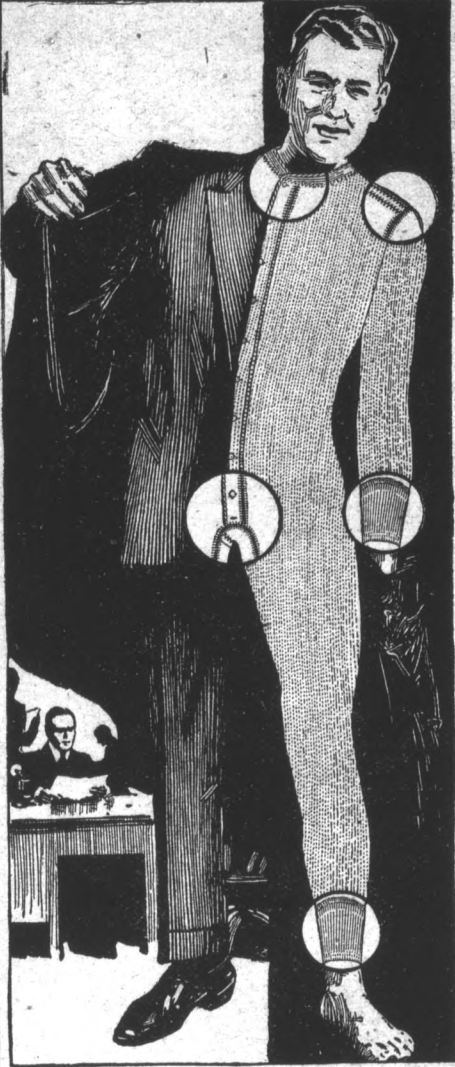
**Owner Obligated** to go to another state, offers equipped 200 acre dairy farm divisible into two good homes, convenient to best schools and colleges at big sacrifice if taken now. Fine opening for some Holstein breeder.

WILLIAM B. HATCH, Ypsilanti, Mich.

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"We guarantee Hanes Underwear absolutely—every thread, stitch and button. We guarantee to return your money or give you a new garment if any seam breaks."

Next Summer-You'll want to wear "Hanes" Nainsook Union Suits

## Our Boys' and Girls' Page

### Knights of the Farm

*The Best Society of All. Do You Belong?*

THAT is what I want to live long enough to see, a new society for boys, with a branch or affiliated organization for the girls, to include every young person of the farm whose heart is good and clean and devoted to service for everybody. What would you think of the name for this band of young folks which I have given to this article? Knights of the Farm? It has a good ring, has it not? But it is just what one would expect of the boys and girls who gave their names in to be members of the new organization, that they should be really knights, battling for the right and the best there is in life. And I know they would live up to the name.

But whether there ever should be an organization of that kind or not, with its charter and by-laws and all that sort of paraphernalia, we can surely join that splendid body of young folks in spirit, adopting our own code and living up to it with all the strength of heart, mind and body that has been given us.

It means so much to have ideals that lead us to act, think and work every day toward the highest forms of citizenship. For that is what all farm boys and girls ought to be aiming at. As the days go by we are steadily coming to the time when we will take our places as members of this great republic, citizens of the best nation in the world, with all its interests devolving upon us; and we want to be ready for the responsibilities when they come: so the time to begin preparing is today.

What is this thing we call for lack of a better word knighthood? I think now of a little thing that happened to a couple of boys. They were out in the woods one day. One of the lads climbed a tree that had come to grow away down out of the perpendicular, slanting at the top toward the earth. While he was there among the upper branches, the other boy quickly seized his axe and cut the tree down. It was a dangerous thing to do, for, of course, when the tree fell, the boy came to the ground with it. He might have been seriously injured, although it so happened that he was not. The boy who did the chopping thought it a great piece of sport and laughed till he could scarcely stand.

You would not call that a very knightly thing to do, would you? Far rather would you have preferred to

have been in the place of the boy who was treated that way, for he just smiled, though for a moment his face was pale, as he said: "I didn't think you would do a thing like that, Sam!" You see, he had lost confidence in his chum and it would not be strange if he never recovered it afterward. For the boy who does a mean trick runs the risk of never getting back the confidence of the friend of former days.

Would you not like to have been the girl who, when one of her friends was being sneered at because she was wearing clothes that were faded and patched, bravely stood up for her, and with flaming cheeks said to the young tormentors, "You shall not abuse Mary! She is the best girl I ever knew, and I'll fight for her if I have to." There is the knighthood for you. You can't

help loving the one who was loyal and true enough to stand up for a friend when she was in trouble.

I know a teacher in one of our city schools who came from the country. She had taken a course in a normal school and secured her place in the high school on her merits as a teacher. She found some of the city boys and girls who were inclined to make fun of those who came from the country, but she never failed to come to the defense of those misunderstood young people, declaring that they were the equal of city boys and girls and that she would not stand by and hear them judged wrongfully or ridiculed. Soon her pupils learned that she meant just what she said and stopped their unmannerly sport. All honor to this young farmer girl teacher of the knightly heart! How her young pupils from the farm must have loved her!

And then, it is the part of a farm knight to be ready to do anybody a good turn. Somebody you know may be in trouble before night. Will it be you who will help that one in his time of need? Then, too, our knights of the farm cannot fail to be sincere and kind to father and mother, as well as to all other fathers and mothers. "Lift a hand to help and keep a cheery heart," will be a fine watchword for our boy and girl knights.

UNCLE ED.

The boys and girls of Michigan are to be congratulated on the improvement that has been made through their efforts in the live stock and poultry of many communities.



**VETCH Separator**  
—FOR—  
Separating Vetch from Wheat Rye or Oats

The Sinclair Scott Co.  
Baltimore, Md.

## LET US TAN YOUR HIDE.

Horse or Cow hide, Calf or other skins with hair or fur on, and make them into coats (for men and women), robes, rugs or gloves when so ordered. Your fur goods will cost you less than to buy them and be worth more.

Our illustrated catalog gives a lot of information. It tells how to take off and care for hides; how and when we pay the freight both ways; about our safe dyeing process on cow and horse hide, calf and other skins; about the fur goods and game trophies we sell, taxidermy, etc.

Then we have recently got out another we call our Fashion book, wholly devoted to fashion plates of muffs, neckwear and other fine fur garments, with prices; also fur garments remodeled and repaired.

You can have either book by sending your correct address naming which, or both books if you need both. Address

The Crosby Frisian Fur Company,  
571 Lyell Ave., Rochester, N. Y.

## Paint Salesmen Wanted

We want good live salesmen, men or women, in every part of Michigan to sell the World's Best House and Barn Paint on our direct from Factory to Consumer plan at the factory price. Good commissions, steady employment summer and winter. Address  
GRAND RAPIDS VARNISH CO., Paint Dept.,  
Grand Rapids, Mich.

## LEARN AUCTIONEERING

at the World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught. Write today for free catalog. JONES NAT'L SCHOOL OF AUCTIONEERING  
20 N. Sacramento Blvd., Chicago, Ill. Casey M. Jones, Pres.

## Let's go



The sure way to put pep into your job on a rainy day is to get into a

**FISH BRAND Reflex Slicker.**

There is a FISH BRAND garment for every kind of wet work or sport

DEALERS EVERYWHERE

A.J. TOWER CO.  
ESTABLISHED 1836  
BOSTON MASS.



2024

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At Factory Prices

"Reo" Cluster Metal Shingles, V-Crimp, Corrugated, Standing Seam, Painted or Galvanized Roofings, Siding, Wallboard, Paints, etc., direct to you at Rock-Bottom Factory Prices. Positively greatest offer ever made.

### Edwards "Reo" Metal Shingles

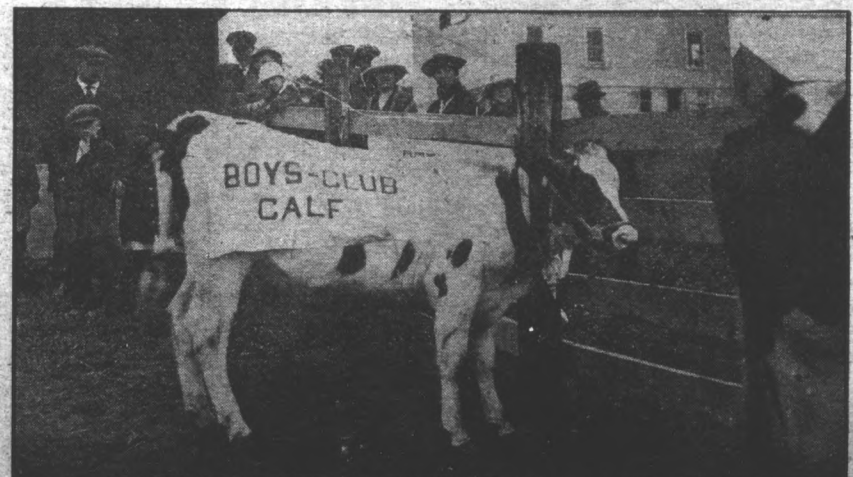
cost less; outlast three ordinary roofs. No painting or repairs. Guaranteed rot, fire, rust, lightning proof.

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Get our wonderfully low prices and free samples. We sell direct to you and save you money. Ask for Book No. 1067.

**LOW PRICED GARAGES**  
Lowest prices on Ready-Made Fire-Proof Steel Garages. Set up any place. Send postal for Garage Book, showing styles. THE EDWARDS MFG. CO.,  
1017-1067 Pike St., Cincinnati, O.

**FREE Samples & Roofing Book**



Boys in Cloverland Are Enthusiastic Over Calf Club Work.

Mention The Michigan Farmer When Writing Advertisers



## DAIRY CATTLE CONGRESS.

THE Eleventh Annual Dairy Cattle Congress, which was recently held at Waterloo, Iowa, was bigger and better than it was last year, and despite the very unusually cool weather during several days of the show, a large attendance was had.

The cattle came from as far east as Vermont and as far west as Montana. Several new exhibitors were present this year, as well as several of the best show herds. Every herd with the exception of the Ayrshires, had a much stronger show than they did last year. Due to the fact that several of their exhibitors could not get cars, their show was about the same as last year. This also kept many other herds away from the show. The Brown Swiss made an exceptionally good showing this year. Nine states sent herds.

Among the Jersey herds, the Longview Farm of Lee's Summit, Missouri, which have been such consistent winners, was considerably larger than other exhibits, having in all, twenty-eight head; the next herd of note was those of Secretary of Agriculture Meredith.

Among the Guernsey herds, that of U. A. Woodbury II, of Vermont, stood out as attracting considerable attention. Many other famous herds competed.

One of the greatest attractions was the famous Mrs. O'Grady, owned by Prof. Hugh G. Van Pelt, of which more has been written and said than of any other cow in history. Stories of many kinds center about this cow, but for all that, she is producing every day and was always surrounded by a large crowd of people at the show.—G. H. C.

## INTERNATIONAL BELGIAN HORSE SHOW.

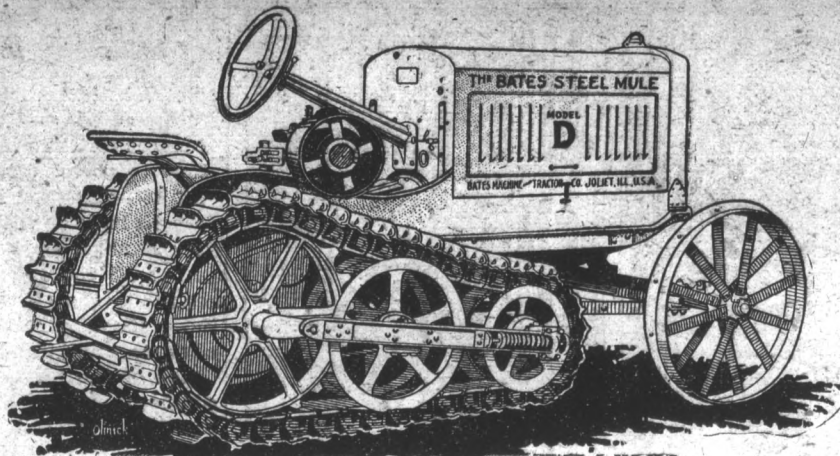
BELGIAN breeders and horse admirers generally were privileged to a rare treat during the week of the International Belgian Horse Show. This show is unquestionably the greatest show of Belgian horses that has ever taken place outside the borders of Belgium, the original home of the breed. The show this year brought out a number of small breeders and beginners, who had never tried showing at a show of such magnitude. Their success is proof enough that the owner of even the small stud often can produce animals of championship caliber.

The total number of breeders making entries here this year amounted to thirty-four, but owing to the inability to secure express cars, those living in Indiana and Ohio, amounting to seven entries, did not send their animals. It is a fact that live stock men who desire to ship valuable animals a distance are greatly handicapped because they cannot secure suitable cars for shipment; officials are looking forward to the time in the near future when such conditions will have been remedied. The animals from the east represented the top animals from seven studs, so considerable competition would have been added had they arrived. As it was, twenty-seven exhibitors won at the show.

The larger studs were those of Chas. Irvine, of Ankeny, Iowa; C. G. Good, of Ogden, Iowa, and Dr. W. A. Hamilton, of Paulina, Iowa. While the number of horses were smaller this year than last, yet the quantity of the animals was up to the usual standard.

The judging was done by Prof. D. J. Kays, of Ohio State University; Chas. Brown, Iowa, and George Rupp, Saskatchewan, Canada. It is not likely that closer team work has been seen with judges in some little time than these men showed in their work.

G. H. C.



The most efficient Tractor in America

## Bates Steel Mule Most Efficient on Belt Work

THE convenient arrangement of the Belt Pulley on the BATES STEEL MULE makes it easy for one man to quickly line up the Tractor with its work.

The Belt Pulley runs on nickel steel roller bearings and is operated by the same clutch that runs the Tractor, delivering full power to the driven machine.

A lever on Pulley Housing allows the Belt Pulley to be shifted in and out of gears.

The location of the Belt Pulley protects the motor bearings from any belt whipping shocks.

The BATES STEEL MULE generates sufficient power to operate an 18" Ensilage Cutter or a 28" Thresher with ease.

The unusual adaptability of the BATES STEEL MULE makes it the logical Tractor for every job on the Farm where dependable motive power is essential. Have you our Catalog? Write today.

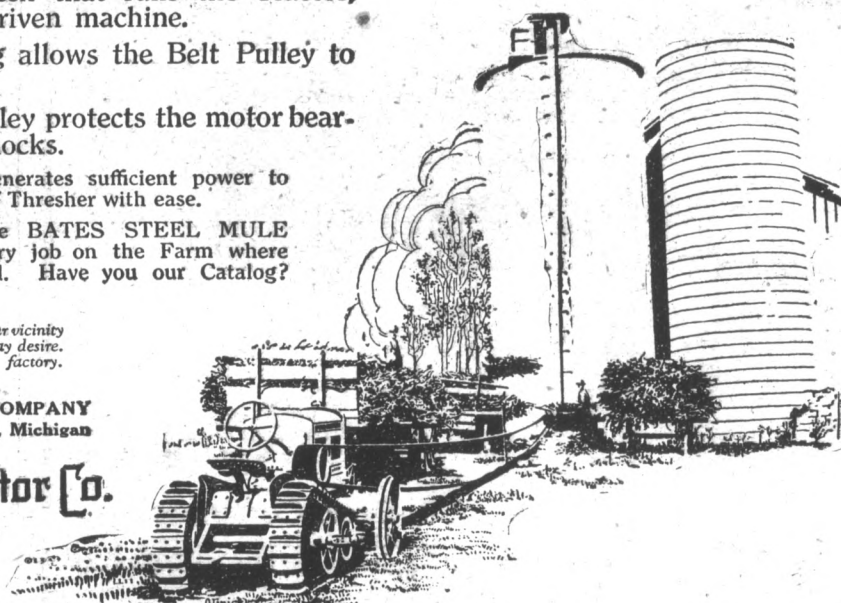
The Live Wire Bates Steel Mule Dealer in your vicinity will give you any further information you may desire. If you cannot locate him, write direct to factory.

MICHIGAN-JOLIET, OIL TRACTOR COMPANY  
224 S. Capital Avenue, Lansing, Michigan

Bates Machine & Tractor Co.

Established 1883  
Joliet, Illinois

F-1098



Running an 18" Ensilage Cutter

**Bates Steel Mule**  
DOES NOT PACK THE SOIL

## "LITTLE THINGS"

That Guarantee Little Trouble  
and Little Expense

Besides the supreme United States qualities of close skimming, easy turning and easy cleaning—features of which the owner is conscious in every-day use—here are a few of the construction details that stamp the United States Cream Separator as a fine, long-lived, finished mechanism.

One-piece sanitary frame—easy to clean; heavy enough to prevent excessive vibration.

All gears enclosed; no wear from grit and dust.

Automatic oil-splash system—introduced by the United States; imitated by others.

Low and most practical-shaped supply can.

These and many other superiorities guarantee freedom from disappointment and frequent repairs.

Write for catalogue and convince yourself that your next separator is to be a United States.

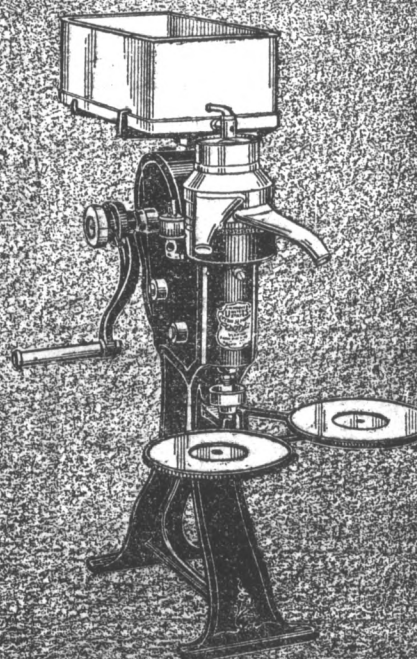
**Vermont Farm Machine Corporation**  
Bellows Falls, Vt.

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277 Broadway

Chicago  
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**UNITED STATES**  
CREAM SEPARATOR  
WITH PERFECTED DISC BOWL



## Bone Spavin

Even established cases yield to Fleming's Spavin and Ringbone Paste, or money back \$2.00 a bottle postpaid. Send for FREE VETERINARY ADVISER. Describes Spavins and 200 other horse and cattle ailments. FLEMING BROTHERS, 262 Union Stock Yards, Chicago

## FARM HELP

WANTED  
house to live in.

Herdsman \$35, and helper \$20 per month at once. Married. Good. H. H. DRIGGS, Palmyra, Mich.

Wanted Good general farmer for 160 acre modern equipped farm near Detroit. Also single farm hand with Fordson Tractor experience. State age, experience and salary expected. Address Box 8 1016, Michigan Farmer, Detroit, Mich. Mention The Michigan Farmer When Writing Advertisers

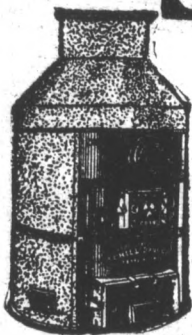




## Avoid Dirt and Trouble

You needn't mess up your home with dirty water, coal dust, ashes and smoke, and you needn't lug in the coal and carry out ashes three or four times a day. Just install the

**COZY** The Perfect  
PIPELESS FURNACE



on the basis of guaranteed satisfaction. You will find its single register heats every room, that it supplies balmy, healthful heat to every room at less cost than the stoves in two or three rooms; that it requires less attention and gives better results. Visit the dealer and see it. Read the guarantee. Or write to us for our booklet, "The Last Word in Economical Heating," and see why the Cozy is called the "Perfect Furnace."

The Schill Bros. Company,  
Crestline, Ohio  
Morley Bros., Saginaw, Mich., Distributors

## BREEDERS' DIRECTORY

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

## Wildwood Farms Angus

Effies Lass 238203 sold on May 6th for \$7100. She was sired by Black Monarch 3rd. We are offering for sale Editor of Wildwood 295059 a full brother in blood lines to Effies Lass also four more choice bulls which are old enough for service and sired also by the champion show and breeding bull Black Monarch 3rd.

Our herd is under State and Federal Supervision.

**WILDWOOD FARMS**  
ORION, MICHIGAN

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

## WOODCOTE ANGUS

Imported Herd Bulls  
ELCHO OF HARVESTOON (45547)  
by Jason of Ballindallock (39048)  
EDGARDO OF DALMENY (45501)  
by Escort of Harvestoon (36006)  
Woodcote Stock Farm, Ionia, Mich.

For Sale Registered Guernsey bulls. May Rose breeding cheap if taken soon. Come or write. John Ebels R. 2, Holland, Michigan.

## SPRING DELL FARM GUERNSEYS

For sale: Choice of two bulls two and three years old; also bull calves three to twelve months. Registered. Splendid individuals and breeding. Prices right. WHITE BROTHERS, R. 2, Box 20, La Porte, Indiana.

Guernsey Bull Busto of Smallidge Farm, born Feb. 2nd, 1920. Sire Bonnie of the Ridge, who's dam Trixie of the Ridge holds first place in class EE in Michigan. Granddam Abbie of Riverside is champion of Mich. Dam May Kings Esalia of Eau Claire an A. R. cow. E. J. SMALLIDGE, Eau Claire, Mich.

Pure bred Guernsey bulls from one to four weeks old. Registered \$30, not registered \$25. Orders shipped in rotation received. No excuse for scrub bulls. WALTER PHIPPS FARM, 80 Alfred St. Detroit, Geo. E. Currie, Mgr.

**For Sale:** Guernsey bulls from 3 months to 6 months old. Their sire is DOTTIE'S PRINCE No. 4488; his dam has an official yearly record of 647 lbs. butter fat. L. J. BYERS, Coldwater, Mich.

**GUERNSEYS**—Federal Inspected. Headed by only a son of Carrie of Hillhurst, exchampion of A. A. class. 5 bulls under 10 mos., 1 a dandy whose dam in class D has given over 50 lbs. milk. No females to spare. G. W. & H. G. RAY, 4 mi. east of Albion, Mich.

**GUERNSEY BULL CALVES** whose sire's dam made 19,460.20 milk, 909.05 fat. Their mother's sire's dam made 15,109.10 milk, 775.80 fat. T. V. HICKS, Battle Creek, Mich.

**Registered Guernseys** a 6 months old bull (100%) satisfaction for \$100. A nice heifer calf \$50. J. M. WILLIAMS, North Adams, Mich.

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

**FOR SALE** Registered Guernsey heifers, yearlings and calves. E. A. BLACK, Route 3, Howard City, Mich.

**Long Distance** HOLSTEINS. HERD-SIRE PRINCE OMA Five dams av. 1186 lbs. butter and 2471 lbs. milk in 1 yr. Bulls all sold. State and Federal Super. A. FLEMING, Lake, Mich.

## NOTICE

### The Winwood Herd

on Nov. 1st will move their Herd of Pure Blood Holsteins to their new home, 1½ miles south of Rochester, Mich. and for the next 30 days we will sell what bull calves we have cheap as we will be unable to get our buildings complete before winter. So get busy if you want a son of Flint Maplecrest Boy at your own price.

**JOHN H. WINN, (Inc.)**

Roscommon, Michigan

### OUR HERD SIRE Model King Segis Glista

By a 30 lb. son of Lakeside King Segis Alban De Kol. His dam Glista Fenelle 32.37 lbs. Her dam Glista Ernestine 35.96 lbs. His three nearest dams average over 38 lbs and his forty-six nearest tested relatives average over 30 lbs. of butter in seven days. Write for prices on his sons.

**Grand River Stock Farms**  
Cory J. Spencer, Owner Eaton Rapids, Mich.

## Trade Stabilized

(Continued from page 473).

rectors meets and considers the scale of prices for the prune crop then about ready to go to market. "We keep the cost of production in mind, but it has very little to do with setting the price," says Manager Coykendall. "We get together all the information we can in regard to the size of the prune crop, the probable demand as determined by advance orders and other things, condition of the foreign market, probable competition from other countries, general business conditions, and then proceed to agree on a price that makes a living for the grower, and I will leave it to anybody if it is not business-like and fair to all parties concerned."

It is well to note also, that while the prune growers have been investigated, their operations have always been approved by the government authorities.

### Selling the Prunes.

The duty of selling the prunes belongs to Mrs. R. G. Wallace, who holds a business position probably as important as that held by any woman in America. Last year she supervised the sale of over \$25,000,000 worth of prunes, and total sales will probably exceed \$30,000,000 this year. Half or more of the prunes are sold by the time prices are fixed. They are sold at the "firm-at-opening price," which means that the contracts are good at whatever price the association sets.

"The speculators have always objected to us setting the price as late as August," Coykendall told me. "They want us to set it six or eight months earlier so they can play with the crop a bit, too. We would be speculators, too, if we fixed the price early when we wouldn't know any more about the size of the crop than a farmer knows about his corn crop when he plants it. We have always stood firm on that principle and will continue to do so."

### Swatting the Speculators.

Buying the crop from producers and selling it later is only one way of speculating in farm products. Another is buying it when it should be moving in various markets. They don't monkey with prunes any more, however, because the California Prune and Apricot Growers' Inc., knows just how many prunes every wholesale dealer in the United States can legitimately handle.

When he buys more than that amount, it is evident that he is speculating. Bing! his supply is shut off, and as he can't get enough prunes anywhere else to speculate with, he is compelled to be good. There are a number of chronic speculators, however, to which the prune and apricot growers refuse to sell any product, and moreover, they refuse to sell anything to any other company, which re-sells to these speculative companies.

"We are following up this plan to kill speculation as far as prunes and apricots are concerned," said Mrs. Wallace. "We are against speculation in prunes and apricots because it increases prices to consumers and thereby reduces consumption. We are all the time working to increase consumption, and the speculators are therefore our enemies."

### Financing the Warehouses.

The physical equipment of the prune and apricot association-warehouses and processing plants, is owned by a subsidiary company called the Growers' Packing and Warehousing Association, Inc. The California Prune and Apricot Growers, Inc., (the marketing association), pays the other company a certain amount for doing the mechanical work necessary in preparing dried

considerable profit in doing the work for \$7.00 per ton, so the accumulated profits are used to retire the outstanding capital stock (about \$1,000,000). It is expected that this will all be retired in two or three years, except a few shares necessary to retain the corporation form of the company. These, of course, will be held by the marketing company.

The reason why two companies were formed originally is that a company cannot give itself a warehouse receipt. The receipts were necessary to borrow money, to pay advances to the growers for their crops, so the double company plan was devised. This same plan is often used by commercial business concerns.

### Better Quality of Product.

A separate story might well be written about the improvement in quality of product that has been brought about by the Prune Growers' Association. Prunes are all graded according to one standard, which is now known the world over. In fact, the other handlers of prunes are even compelled to guarantee their prunes to equal the quality of those handled by the association. In 1918 when a rain fell in the picking season, the association worked out methods of saving damaged prunes, and saved several million dollars for growers by the processes developed.

The same story could be told about every important cooperative marketing association in California. "More has been done by cooperative associations to improve the quality of product than by every other agency combined, and then some," says W. H. Heileman, secretary of the California Farm Bureau Federation.

### The Problem of "Over-production."

The prune and apricot growers, like the citrus and raisin growers, have found that their chief problem is a constantly increasing production, induced by the prosperous condition of the industry. They are careful to point out that there is no over-production as yet, because the supply of prunes is still consumed year after year, though constantly growing larger. The job ahead of the association may be guessed from the fact that there are now eighty-five thousand acres of prunes in bearing in California, and sixty-five thousand acres more planted. The apricot acreage is increasing in the same proportion.

The association is spending about \$300,000 per year in advertising the prunes and apricots in order to help sell the larger crops. "Our advertising campaigns have been tremendous successes," says Coykendall. "They have kept the demand of prunes constantly on the increase."

The strength of the association can be judged from its experience in 1919, when foreign exchange went to smash. Formerly half of the prunes produced were exported. The exchange situation cut off the foreign demand, so the association proceeded to sell the whole California crop in America, and the Oregon and Washington prunes were also sold in this country. Consumers were simply induced to eat two prunes, where they had eaten one before.

The triumph of the California prune and apricot growers represents the highwater mark in the success of producers' cooperation in America. It is well worth study by any other group of farmers who hope to embark in extensive plans of cooperative marketing of their products.

The greatest advantage of owning a truck on a general farm is saving time per ton, the standard charge for handling and picking prunes in all the pack-houses in California. There is a central west-ern farmer truck owners.



## Live Stock Awards at Grand Rapids

### BEEF CATTLE

#### Galloways.

Heifer, Two Years Old—Jas. Frantz & Sons, Bluffton, Ohio, first; H. M. Vines, Howell, second and third.

Heifer, One Year Old—Jas. Frantz & Sons, Bluffton, Ohio, first; H. M. Vines, Howell, second and third.

Senior Heifer Calf—Jas. Frantz & Sons, Bluffton, Ohio, first; H. M. Vines, Howell, second.

Junior Heifer Calf—James Frantz & Sons, Bluffton, Ohio, first and second; H. M. Vines, Howell, third.

Exhibitors' Herd—James Frantz & Sons, Bluffton, Ohio, first and third; H. M. Vines, Howell, second.

Breeders' Herd—James Frantz & Sons, Bluffton, Ohio, first; H. M. Vines, Howell, second.

Four Animals, Get of One Sire—James Frantz & Sons, Bluffton, Ohio, first and third; H. M. Vines, Howell, second.

Two Animals, Produce of One Cow—James Frantz & Sons, Bluffton, Ohio, first and third; H. M. Vines, Howell, second.

#### Galloway Champions.

Senior Bull, Two Years or Over—James Frantz & Sons, first.

Junior Bull, Under Two Years—Jas. Frantz & Sons, first.

Senior Cow, Over Two Years—Jas. Frantz & Sons, first.

Grand Bull—James Frantz & Sons, first.

Grand Cow or Heifer—James Frantz & Sons, first.

#### Red Polled.

Bull, Three Years or Over—Stump & Etzler, Convoy, Ohio, first; Wm. W. Kennedy, Grass Lake, second.

Bull, Two Years or Over—Stump & Etzler, Convoy, Ohio, first.

Bull, One Year or Over—Stump & Etzler, first and second; Wm. W. Kennedy, Grass Lake, third.

Senior Bull Calf—Stump & Etzler, first; Wm. W. Kennedy, third.

Junior Bull Calf—Stump & Etzler, first; Wm. W. Kennedy, second and third.

Cow, Three Years or Over—Wm. W. Kennedy first and second; Stump & Etzler, third.

Heifer, Two Years Old—Stump & Etzler, first; Wm. W. Kennedy, second and third.

Heifer, One Year Old—Stump & Etzler, first and third; Wm. W. Kennedy, second and fourth.

Senior Heifer Calf—Stump & Etzler, first; Wm. W. Kennedy, second.

Junior Heifer Calf—Stump & Etzler, first and second; Wm. W. Kennedy, third.

Exhibitors' Herd—Stump & Etzler, first; Wm. W. Kennedy, second.

Breeders' Herd—Stump & Etzler, first; Wm. W. Kennedy, second.

Four Animals, Get of One Sire—Stump & Etzler, first and second; Wm. W. Kennedy, third.

Two Animals, Produce of One Cow—Stump & Etzler, first and third; Wm. W. Kennedy, second.

Champions—Stump & Etzler, senior bull, junior bull, junior heifer, grand bull; W. W. Kennedy, senior cow over two years old, grand cow.

#### Herefords.

Grand Champion Bull—Allen Brothers, Paw Paw, first.

Grand Champion Cow—Allen Brothers, Paw Paw, first.

Bull, Three Years or Over—Allen Brothers, Paw Paw, first.

Bull, Two Years or Over—John Davidson, Owosso, first.

Bull, One Year or Over—Allen Brothers, Paw Paw, first and second.

Senior Bull Calf—John Davidson, Owosso, first.

Junior Bull Calf—Allen Brothers, Paw Paw, first.

Cow, Three Years or Over—Allen Brothers, Paw Paw, first; John Davidson, Owosso, second.

Heifers—Allen Brothers, Paw Paw, first and second for two-year-olds; first and second for one-year-olds; first senior heifer; first junior heifer; first exhibitors' herd, first breeders' herd; first four animals, get of one sire; first and second two animals, produce of one cow.

Hereford Champions—Allen Brothers, Paw Paw, senior bull, junior bull, senior cow, junior heifer, grand bull, grand cow, first.

#### Shorthorns.

Bull, Two Years or Over—John Lessiter's Sons, Clarkston, Mich., first.

Firsts in all other divisions went to the Lessiters, including junior bull calf, cow three years or over, heifer two years or over, heifer one year old,

# Lee Union-Alls

The most popular work and play garment in America.



The millions of Americans who are wearing LEE UNION-ALLS insist on the trade-mark not merely because of the great comfort and convenience of these nationally famous garments but because they reduce substantially the high cost of living.

**They're not Union-Alls  
Unless they're Lee**

Dept. 4698

The H. D. Lee Mercantile Co.

Kansas City, Mo.

Kansas City, Kas.

Minneapolis, Minn.

St. Louis, Mo.

Los Angeles, Cal.

South Bend, Ind.

Trenton, N. J.

Chicago, Ill.

San Francisco, Cal.

**"Just Like Dad's!"**



## Facts in BLACK & WHITE

### Purebred Holstein Cows Return \$1.54 for One dollar of Feed.

Even though you may regard your farm as a diversion or your hobby, you would doubtless prefer to see it self-supporting, and perhaps take still greater pride in it for that very reason. Here are two or three facts! Holsteins are the largest, most vigorous most even-tempered, the easiest-cared-for breed, and the greatest yielders of milk in the world. Their milk is the most evenly balanced in fat, sugar and proteids, and for that reason easily digested. It is everywhere recognized by the medical profession as absolutely the best for infant and invalid feeding as well as for general use. A herd of Holsteins will give you on the average \$1.54 for every dollar's worth of food they eat. Send for our free literature and look it over. Perhaps you will be interested in buying Holsteins.

THE HOLSTEIN-FRIESIAN ASSOCIATION  
164 Hudson Street  
Brattleboro Vermont.

## 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 pedigree and quotations, stating about age desired.

TRAVERSE CITY STATE HOSPITAL  
Traverse City, Mich.

## An Introduction Holstein-Friesian Bulls

Mr. Dairy Farmer, Mr. Holstein Breeder Meet  
KING FLINT

ALL THREE are working to a common purpose—to increase the production of Michigan Dairy herds.

We believe all three should work together.

We feel sure that no Michigan bull has ever been better equipped for the work.

We have it on high authority that there are none better individually.

His three nearest dams each averaged to produce 100 lbs. butter and 2100 lbs. milk per month for a full lactation period with an average of 3.8% fat.

His dam is one of Michigan's greatest families—three full sisters that have produced over 30 lbs. butter in seven days, two of them producing over 700 lbs. milk, and two of them producing more than 1000 lbs. butter and 21000 lbs. milk in ten months.

His sire is the direct descendant of three generations of 30 lb. cows and two generations of 1200 lb. yearly record cows.

His first three sisters to enter yearly test will each produce more than 800 lbs. butter and 17000 lbs. milk as heifers.

Let King Flint Help You Improve Your Herd Through One Of His Sons

A son of this great young sire suited to head any herd in Michigan, grade or purebred, can be secured in Genesee County and we want them all to stay in Michigan.

Write us about your herd, tell us what you need and what you feel you can afford to pay and let us help you find just what you want in Genesee County, the center of Michigan's long-distance dairy cattle.

Genesee Farm  
Walter T. Hill  
Davison, Mich.

Elmcrest Stock Farm  
G. L. Spillane & Son Co.  
Clio, Mich.

## Superior Holsteins

Bulls all sold but are now booking orders for our expected fall crop of

### Bull Calves

sired by my new herd bull, a grandson of

May Echo Sylvia

My sire's two nearest dams average over 35 lbs. butter and 800 pounds milk in seven days.

A. W. COPLAND

Birmingham, Mich.  
Herd under state and federal supervision

33.6 lbs. butter 608.1 lbs. milk in 7 days aver. of

\$250 Terms. King of Pontiacs, Maplecrest and Pieter-tje breeding. M. L. McLAULIN, Redford, Mich.

I have three Holstein-Friesian bull calves whose dams, grand daughters of Hengerveld De Kol, we are just putting on test with good prospects. These cows are of beautiful type and I expect to retain them in the herd and make great producers of them.

These youngsters are sired by a high-class bull and are remarkably fine individuals.

I will sell them for \$150 each if taken at once, but would prefer to farm them out letting a person take them who would give them first-class care, keep them until they were three years old and then return them. If the dams make as good as they ought I would very much prefer the bulls three years of age than \$150 now. The risk of death from natural causes of course would be mine.

D. D. Aitken, Flint, Mich.

## "TOP NOTCH" HOLSTEINS

Buy a "milk" Bull of Quality from the Breeders of the world's only cow to produce 800 lbs. milk in 7 days, having an 800 lb. daughter.

Here's a "Top Notcher":

Segis Vale Colantha Clothilde,

No. 307704, Born Jan. 22, 1920.

His five nearest dams average 30.08 lbs. butter in 7 days. Color: more white than black. Price \$150.00 f. o. b. Howell.

McPHERSON FARMS CO.

Howell, Mich.  
All Herds Under U. S. Supervision.

\$1200 Buys five good young reg. Holstein cows. Some fresh others freshen soon. Very prominent breeding. All guar. O.K. B. B. Heaver, Akron, Mich.





## Valuable Fodder Facts

Thirty-seven percent of the feeding value of your corn crop is tied up in your fodder, so experimental stations say. Just think what that means! When handled the old way, your stock gets only a very small part of that 37%. Nineteenths of it blows away, washes away, leaches out in the weather and is trampled under foot in feeding. About one-third of the entire corn crop is utterly wasted.

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It offers valuable suggestions on fodder-saving. It tells you how the Appleton, the first successful husker and shredder, still leads in corn conservation. Modern farming methods offer no bigger opportunity than in conserving fodder. Start right now. Greater convenience, more fertilizer, and more profits result from shredding or making stover silage of your fodder. Get the free book. Ask also for data on stover silage. Address Dept. 23 care of nearest branch.

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If you are interested in improving your herds  
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**225 CHOICE MICHIGAN-BRED HOLSTEINS 225**

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## Cluny Stock Farm HEREFORDS

Offers the best selection of young bulls from 8 to 12 months we ever raised; out of dams up to 29.76 for aged cows and over 26 lbs. for 2 yr. olds. Yearly records up to 24000 lbs. milk and 1000 lbs. butter. Sired by our Senior Herd Sire, Maplecrest Application Pontiac, whose dam made 35 lbs. butter in 7 days and 1344 lbs. butter and 23421 lbs. milk in a year, or by Dutchland Konigen Sir Rag Apple, our Junior Herd sire, whose dam is a 30 lb. 10 yr. old maternal sister of Dutchland Colantha Denver who made 36 lbs. in 7 days and 1315 lbs. butter and 25431 lbs. milk in 1 year. Several carry the blood of both these sires.

They are extra well grown, straight and right. One of these at the head of your herd is bound to increase production.

Send for pedigrees and prices.

**R. Bruce McPherson, Howell, Mich.**

**We Have,** on our Ranch at Clare, several fine Holstein Bulls, at prices ranging from \$50.00 up. Will furnish pedigrees. The records back of each individual are good. Address **WILLIAM C. CORNWELL, Saginaw Mich.**

**Holstein** Friesian heifer and bull calves, purebred registered and high-grade. Price \$20 up. Splendid individuals and breeding. Write us your requirements. Browncroft Farms, McGraw, N. Y.

**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.**

**BARGAIN PRICES** on pure bred Holstein heifers and young bulls ready for service. **JOSEPH H. BREWER, Grand Rapids, Michigan**

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for sale. Heifers from 8 to 24 months old. All registered and sold subject to tuberculin test. **E. A. HARDY, Rochester, Mich.**

**\$150 buys** choice registered Holstein sire ready for service out of 34 lb. bull. **HATCH HERD, Ypsilanti, Michigan.**

**Reg. Holsteins** For Sale. A few choice cows and heifers. 2s. 3w. St. Johns. **J. R. HICKS, St. Johns, Mich.**

**For Sale** A whole herd of 44 pure bred Holstein cattle, you can buy one or the whole herd if sold right away very cheap. **PERRY E. HILLIER, Flushing, Mich.**

3 heifers for sale of popular breeding also some nice young bulls.

**ALLEN BROS. PAW PAW, MICH.**

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**D. S. Polled Herefords**

Herd headed by Renner Bullion, \$15933, (18242) son of grand champion Bullion 4th.

For Sale—A few good polled and horned cows bred to this great bull. Also three fine bull calves not related to him. Correspondence solicited.

**Cole & Gardner, Hudson, Mich.**

## HEREFORDS

Registered polled bull. Splendid individual and sire. Will exchange for cows or calves.

**D. W. SMITH, Wixom, Mich.**

**Herefords** Double Disturber bull at head of herd. Offer 5-2 yr. olds, bred, 3 yearling and 5 heifer calves. Fairfax breeding. Bulls any age. **EARL C. MCCARTY, Bad Axe, Mich.**

## BROOKWATER

**JERSEYS** Register of Merit Jerseys won 3 championship 16 first and 5 second prizes at the Mich. State Fair.

Ready for service bulls at profitable prices.

**Brookwater Farm,**

Ann Arbor, Mich.

H. W. Mumford, Owner

J. B. Andrews, Mgr.

senior yearling heifer, junior heifer calf.

### Polled Durhams.

Bull, Three Years and Over—L. C. Kelly, Plymouth, Mich., first.

Bull, Two Years Old—D. B. Kelly, Plymouth, first.

Bull, One Year Old—L. C. Kelly, Plymouth, first.

Senior Bull Calf—L. C. Kelly, first.

Junior Bull Calf—B. D. Kelly, first; L. C. Kelly, second.

Cow, Three Years Old and Over—B. D. Kelly, first; L. C. Kelly, second.

Heifer, Two Years Old—L. C. Kelly, first; B. D. Kelly, second.

Heifer, One Year Old—L. C. Kelly, first and fourth; B. D. Kelly, second and third.

Senior Heifer Calf—L. C. Kelly, first; B. D. Kelly, second.

Exhibitors' Herd—L. C. Kelly, first; B. D. Kelly, second.

Breeders' Herd—L. C. Kelly, first; B. D. Kelly, second.

Four Animals, Get of One Sire, and Two Animals, Produce of One Cow—L. C. Kelly, first; B. D. Kelly, second.

Champions—L. C. Kelly, first senior bull, senior cow, junior heifer, grand bull, grand cow; B. D. Kelly, junior bull.

### Aberdeen-Angus.

Woodcote Stock Farm, Ionia, won all prizes in this section.

## DAIRY CATTLE

### Holstein-Friesians.

Bull, Three Years or Over—Dudley E. Waters, Grand Rapids, first; Corey J. Spencer, Jackson, second; George Stevens, Grand Rapids, third; Willard & Booth, Grand Rapids, fourth.

Bull, Two Years or Over—L. J. Wilson, Grand Rapids, first; C. J. Spencer, second.

Bull, One Year Old—Loeb Farms, Charlevoix, first; C. J. Spencer, second and third; Dudley E. Waters, fourth.

Senior Bull Calf—Loeb Farms, first and second; Willard & Booth, third; C. J. Spencer, fourth.

Junior Bull Calf—John C. Booth, of Grand Rapids, first; Loeb Farms, second; C. J. Spencer, third; D. E. Waters, fourth.

Cow, Five Years or Over—Dudley E. Waters, first and fourth; J. C. Booth, second and third.

Cow, Three Years Old and Under Five—D. E. Waters, first and third; J. C. Booth, second.

Heifer, Two Years Old—D. E. Waters, first; L. J. Wilson, second; J. C. Booth, third; C. J. Spencer, fourth.

Senior Yearling Heifer—J. C. Booth, first; C. J. Spencer, second; D. E. Waters, third; L. C. Wilson, fourth.

Exhibitors' Herd—D. E. Waters, first; J. C. Booth, second; L. C. Wilson, third; C. J. Spencer, fourth.

Breeders' Herd—J. C. Booth, first; D. E. Waters, second; C. J. Spencer, third; L. C. Wilson, fourth.

Four Animals, Get of One Sire—J. C. Booth, first; D. E. Waters, second; C. J. Spencer, third.

Two Animals, Produce of One Cow—J. C. Booth, first; C. J. Spencer, second; D. E. Waters, third; J. L. Wilson, fourth.

Junior Yearling Heifer—D. E. Waters, first; J. C. Booth, second; Loeb Farms, third; C. J. Spencer, fourth.

Senior Heifer Calf—Loeb Farms, first; J. C. Booth, second; C. J. Spencer, third and fourth.

Junior Heifer Calf—J. C. Booth, first; Loeb Farms, second; D. E. Waters, third and fourth.

Champions—Senior bull, D. E. Waters; junior bull, J. C. Booth; senior cow, D. E. Waters; junior heifer, J. C. Booth; grand bull, D. E. Waters; grand cow, D. E. Waters.

### Jerseys.

Bull, Three Years Old—Arthur Edison, Grand Rapids, first.

Bull, Two Years Old—Eardley Brothers, Grand Rapids, first; S. J. Cowan, Rockford, second.

Bull, One Year Old—Eardley Brothers, first; Arthur Edison, second.

Senior Bull Calf—Eardley Brothers, first; Arthur Edison, second.

Junior Bull Calf—Arthur Edison, first; Nicholas Potter, Grand Rapids, second; Arthur Edison, third; Eardley Brothers, fourth.

Cow, Five Years Old—Arthur Edison, first; Eardley Brothers, second and third.

Cow, Three Years Old—Arthur Edison, first and third; Eardley Brothers, second and fourth.

Heifer, Two Years Old—Eardley Brothers, first; Arthur Edison, second and third.

Senior Yearling Heifer—Eardley Brothers, first; Arthur Edison, second; S. J. Cowan, third.

Junior Heifer Calf—Eardley Brothers, first and second; Arthur Edison, third; S. J. Cowan, fourth.

Exhibitors' Herd—Arthur Edison, first; Eardley Brothers, second.

Breeders' Herd—Eardley Brothers, first; Arthur Edison, second.

Four Animals, Get of One Sire—Eardley Brothers, first; Arthur Edison, second.

Two Animals, Produce of One Cow—Eardley Brothers, first and second; Arthur Edison, third.

Champions—Senior bull, Arthur Edison; junior bull, Eardley Brothers; senior cow, Eardley Brothers; junior cow, Eardley Brothers; grand bull, Arthur Edison; grand cow, Eardley Brothers.

### Guernseys.

Bull, Three Years Old—John Ebels, Holland, first; Robt. A. Holmes, Grand Rapids, second.

Bull, Two Years Old—Mike Baker, Grand Rapids, first; R. A. Holmes, second; John Ebels, third.

Senior Bull Calf—John Ebels, first and second; R. A. Holmes, third.

Junior Bull Calf—R. A. Holmes, first; John Ebels, second.

Cow, Five Years or Over—John Ebels, first; R. A. Holmes, second and third.

Cow, Three Years Old—Robert A. Holmes, first and third; John Ebels, second.

Heifer, Two Years Old—John Ebels, first; R. A. Holmes, second and third.

Senior Yearling Heifer—Robert A. Holmes, first.

Junior Yearling Heifer—John Ebels, first and third; R. A. Holmes, second and fourth.

Senior Heifer Calf—R. A. Holmes, first and fourth; John Ebels, second and third.

Junior Heifer Calf—John Ebels, first; R. A. Holmes, second.

Exhibitors' Herd—John Ebels, first; R. A. Holmes, second.

Breeders' Herd—R. A. Holmes, first; John Ebels, second.

Four Animals, Get of One Sire—John Ebels, first; R. A. Holmes, second.

Two Animals, Produce of One Cow—John Ebels, first; R. A. Holmes, second.

Champions—John Ebels won first on senior bull, senior cow, junior heifer, grand bull, grand cow; Mike Baker won first on junior bull.

### Brown Swiss.

Hull Brothers, of Painesville, Ohio, won everything in this section.

### Ayreshires.

Shuttleworth Brothers, of Ypsilanti, carried off all the awards in this division.

### Milking Shorthorns.

Cow, Three Years or Over—N. C. Peterson, Gowen, first and second.

Heifer, One Year and Under Two—N. C. Peterson, first.

Fat Cattle—Purebred or Grade.

Steer, Two Years and Under Three—John Lessiters' Sons, Clarkston, first.

Steer Calf, Six Months and Under One Year—James Frantz & Sons, of Bluffton, Ohio, first.

### Ayreshire Special.

Shuttleworth Brothers won first.

## SWINE

### Poland Chinas.

Boar, Two Years or Over—Allen Brothers, Paw Paw, first; W. B. Ramsdell, Hanover, second; Stokes & Hile, Greenville, third.

Boar, 18 to 24 Months—Stokes & Hile, first; John R. Hawkins, Hudson, second and third.

Boar, 12 to 18 Months—W. B. Ramsdell, first; Stokes & Hile, second; John Hawkins, third.

Boar, Six to Twelve Months—W. B. Ramsdell, first; John Hawkins, second and third.

Boar, Under Six Months—W. B. Ramsdell, first and third; John Hawkins, second; Fred Schaefer, Comstock Park, fourth.

Sow, Two Years or Over—Stokes & Hile, first and second; W. B. Ramsdell, third and fourth.

Sow, 18 to 24 Months—John Hawkins, first; Stokes and Hile, second.

Sow, 12 to 18 Months—Stokes & Hile, first; Allen Brothers, second; W. B. Ramsdell, third.

Sow, Six to Twelve Months—John Hawkins, first; W. B. Ramsdell, second; Stokes & Hile, third.

Sow, Under Six Months—W. B. Ramsdell, first and third; John Hawkins, second; Stokes & Hile, third.

Exhibitors' Herd—Stokes & Hile, first; W. B. Ramsdell, second; John Hawkins, third.

Breeders' Herd—Allen Brothers, first; Stokes & Hile, second; John Hawkins, third; W. B. Ramsdell, fourth.

Four Animals, Either Sex, Get of One Boar—W. B. Ramsdell, first; John Hawkins, second; Stokes & Hile, third; Allen Brothers, fourth.

Champion—Senior boar, Allen Brothers; junior boar, W. B. Ramsdell; senior sow, Stokes & Hile; junior sow,



John Hawkins; grand boar, Allen Brothers; grand sow, Stokes & Hile. Duroc Jerseys.

Boar, Two Years or Over—C. E. Davis & Son, Ashley, first; Carey U. Edmunds, second; N. Barnhardt, St. Johns, third.

Boar, 18 to 24 Months—C. U. Edmunds, first; Frey Brothers, Caledonia, second; C. E. Davis, third.

Boar, 12 to 18 Months—N. Barnhardt, first; C. E. Davis, second; Clyde R. Austin, Bloomingdale, third.

Boar, Six to Twelve Months—N. Barnhardt, first; C. U. Edmunds, second; C. E. Davis, third.

Sow, 18 to 24 Months—C. U. Edmunds, first and third; N. Barnhardt, second; C. E. Davis, fourth.

Sow, 12 to 18 Months—N. Barnhardt, first; C. U. Edmunds, second; C. E. Davis, third; C. R. Austin, fourth.

Sow, Under Six Months—C. L. Schafley, St. Johns, first and second; C. U. Edmunds, third; C. R. Austin, fourth.

Exhibitors' Herd—C. E. Davis, first; N. Barnhardt, second; C. U. Edmunds, third.

Champions—Senior boar, eighteen months or over, C. U. Edmunds, junior boar, under eighteen months, junior sow under eighteen months, grand boar, N. Barnhardt; senior sow, eighteen months or over, grand sow, C. E. Davis.

#### Chester Whites.

A. J. Adams, Litchfield, won everything in this class, excepting the second premium for a boar under six months, second and fourth premiums for a sow under six months, second premium for breeders' herd, second premium for four animals the get of one boar, second premium for four animals the get of one sow, which awards went to the Junior Boys' Pig Club, Grand Rapids.

#### Tamworths.

W. S. Adams won all awards in this section.

#### Victoria and Cheshires.

N. Barnhardt won all awards in this class.

### SHEEP

#### American Merino.

Ram, Two Years or Over—Calhoun Brothers, Bronson, first and third; E. E. Nye, Jonesville, second.

Ram, One Year Old—Calhoun Brothers, first and third; E. E. Nye, second.

Ram, Lamb and Ewe, Two Years or Over—Calhoun Brothers, first and third; E. E. Nye, second.

Ewe, One Year Old—Calhoun Brothers, first; E. E. Nye, second.

Ewe Lamb—Calhoun Brothers, first and third; E. E. Nye, second.

Flock of Four, and Pen of Four Lambs—Calhoun Brothers, first and third; E. E. Nye, second.

Champions—Calhoun Brothers, first ram two years or over, ram under two years, ewe two years or over, ewe under two years, grand ram, grand ewe, pen of three yearling ewes, pen of three yearling rams.

#### Delaines.

Ram, two years or over; ram, one year old, ram lamb; ewe, two years or over; ewe, one year old; ewe lamb; flock of four; pen of four lambs, Calhoun Brothers, first; E. E. Nye, second.

Champions—Calhoun Brothers, ram over two years, ram under two years, ewe two years or over, ewe under two years, grand ram, grand ewe, pen of three yearling ewes, pen of three yearling rams.

#### Rambouillets.

Ram, Two Years or Over—Calhoun Brothers, first; P. C. Freeman & Sons, Lowell, second.

Ram, One Year Old—Calhoun Brothers, first; P. C. Freeman & Sons, second and third.

Ram Lamb—Calhoun Brothers, first and second; P. C. Freeman & Sons, third and fourth.

Ewe, Two Years or Over, Year-old Ewe, Lamb Ewe, Flock of Four, Pen of Four Lambs—Calhoun Brothers, first; Freemans, second.

Champions—Calhoun Brothers, ram two years or over, ram under two years or over, ewe under two years, grand ram, grand ewe, pen of three yearling ewes, pen of three yearling rams.

#### Shropshires.

Ram, Two Years or Over—Kope Kon Farm, Coldwater, first; Herbert E. Powell, Ionia, second and fourth; R. J. & C. A. Williams, Middleville, third.

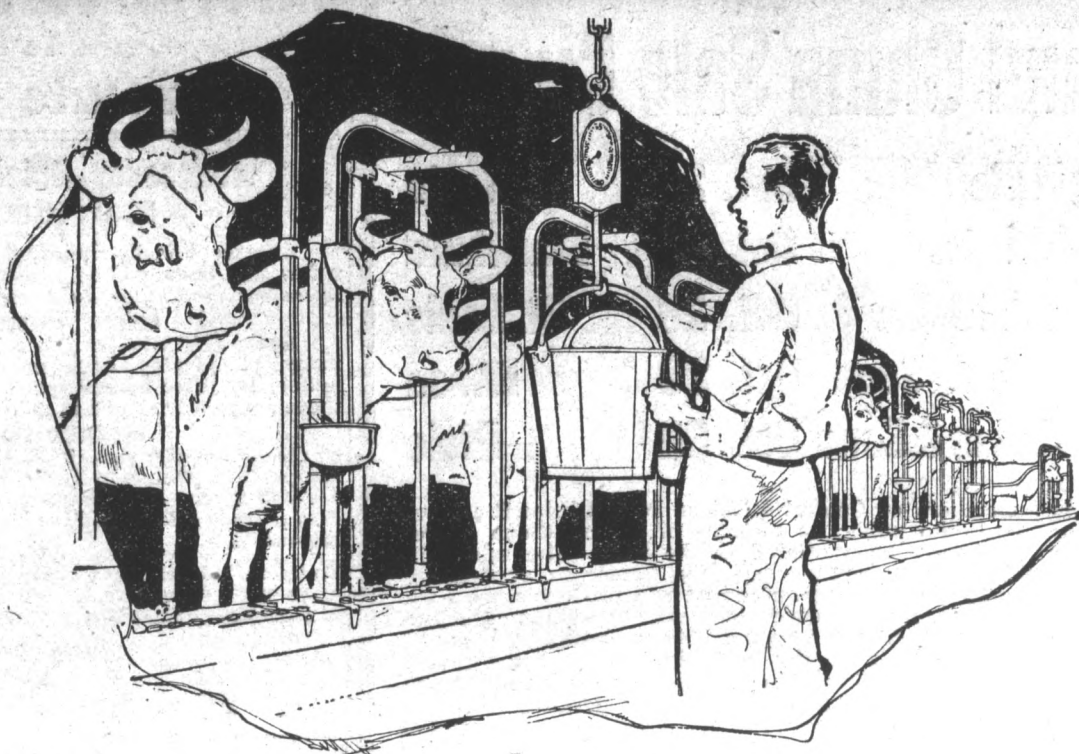
Ram, One Year Old—Kope Kon Farm, first; H. E. Powell, second and third.

Ram Lamb—Kope Kon Farm, first and second; B. D. Kelly, Plymouth, third; H. E. Powell, fourth.

Ewe, Two Years or Over—Kope Kon Farm, first; H. E. Powell, second and third; B. D. Kelly, fourth.

Ewe Lamb—H. E. Powell, first; Kope Kon Farm, second and third.

Flock of Four—Kope Kon Farm, (Continued on page 497).



## MILKY WAY MAKES THE MILK WEIGH

Not heavier milk but more from every cow

### The MILKY WAY DAIRY RATION

PURE grains and choice concentrates. Just the balance of proteins, carbohydrates, and fats to produce the heaviest flow of milk. Vitamines and minerals that recent tests have proved necessary.

The whole tried out for palatability and digestibility in hundreds of farm tests. Put up so it's easy to feed.

A rightly planned, honestly manufactured, and carefully tested dairy feed that takes the guesswork out of your feeding and makes more milk from every cow.

Tell your dealer you want Milky Way. If he doesn't have it, send us his name and we'll see that you get it. Write for "The Milky Way." It tells you how to get more milk from every cow.



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400 N. UNION AVE. CHICAGO.

#### The Wildwood Farm

Jersey Cattle, Majesty strain, Herd on State accredited list, R. of M. testing constantly done. Bulls for sale. ALVIN BALDEN, Phone 1434, Capac, Mich.

**BUTTER BRED JERSEY BULLS**  
CRYSTAL SPRING STOCK FARM.  
Silver Creek, Allegan County, Michigan.

**JERSEY BULLS** Ready for service. Lad, Majesty breeding. Meadowland Farm, Waterman & Waterman, Packard Rd., Ann Arbor, Mich.

**Jerseys For Sale,** Register of Merit stock of both sex. Smith and Parker, Howell, Michigan.

**For Sale** Jersey bull calves of Majesty breeding from good producing stock. Herd on Government "Accredited List." Write for price and pedigree. C. A. TAGGETT, R. 2, Fairgrove, Mich.

**Little Farmstead Jerseys** 2 R. of M. bull calves, one year old this fall. C. C. LILLIE, Coopersville, Mich.

**Jersey Bulls** from R. of M. dams \$75 to \$150 each. NOTTEN FARM, Grass Lake, Mich.

**Shorthorns** Scotch and Scotch Topped bulls and heifers priced right. Sultan Champion heads herd, one scotch two yr. old herd bull by Red Cumberland priced right. H. J. FLOWER & SON, Mio, Mich.

**BIDWELL SHORTHORNS**  
You Can Buy

a bull that will put weights on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. A roan, senior yearling, a Missie of Villager breeding, a herd bull prospect, Federal Test.

**BIDWELL STOCK FARM,**  
Box D, Tecumseh, Michigan

#### We Now Have

a number of choice bred scotch females of any age for sale also three bulls from 6 to 18 months old. Visit our herd before buying. Sold 5 calves for \$5400. CARR BROS., & CO., Bad Axe, Mich.

#### Richland Shorthorns

Imp. Lorne, Imp. Newton champion and Sterling Supreme in Service. We offer for quick sale: Five Scotch Bulls, best of breeding. Three whites at \$1000 each. One roan at \$500, one red at \$400. No females for sale. Public sale Chicago Oct. 28th. C. H. PRESCOTT & SONS, Tawas, City, Mich.

**Your Choice** of 10 out of 30 head of Reg. shorthorns. \$2500 takes the ten and our herd bull. Also have 6 mo. bull out of one of these cows having record of 13880 lbs. milk. E. A. LIVINGSTON, R. 10, St. Johns, Mich.

**Milking SHORTHORNS.** Clay bred bull calves Herds under Federal Supervision. Davidson & Hall, Beand & Beland, Tecumseh, Mich.

**Shorthorns** Good Scotch bred bulls, cows and heifers priced right. W. B. McQUILLAN, R. 7, Howell, Mich.

**MEADOW HILLS Shorthorns.** Herd headed by Silver King, full brother of Lavender Sultan Purdue University's great sire. For sale females of all ages, a few young bulls. Geo. D. Doster, Doster, Mich.

**Milking Shorthorns,** of best Bates breeding, bulls 6 to 8 mo. old for sale. E. H. KURTZ, Mason, Mich.

**Shorthorns of Merit** Both males and females for sale. ARTHUR DODDS, Lapeer, Michigan

**SHORTHORNS**—Imp. Mysie Prince in service bred by J. Durno, sire bred by Wm. Duthie. Stock for sale. J. A. BARNUM, Union City, Mich.

**For Sale** 19 Shorthorn registered good breeding will sell cheap to close out. Apply The JENNINGS FARMS, Bailey, Mich.

**Milking Shorthorn** 3 mos. heifer calf \$125 bred heifers and serviceable bulls at farmers' prices. Central Mich. Shorthorn Assn. Oscar Skinner Sec. Gowen, Mich.

**Red** Polled cattle for sale bulls from 4 to 18 mos. also cows with calves by side and heifer's. G. A. CALHOON, Bronson, Mich.

**Reg. Red Polled** cattle choice young bulls from 6 to 18 mo. old for sale. FRANK KEHLER, R. 1, Grand Ledge, Mich.

**Reg. Red Polled** Bull calves for sale, from 3 mos. to 1 year old, sired by Famous Charming grand son of Charming 1919 International Grand Champion. WESTBROOK BROS., Ionia, Mich.

#### HOGS

**Berkshires** size with quality is our specialty. Write your wants to M. G. MOSHER & SONS, Osseo, Mich.

**Registered Berkshires, Gilts, and Sows** bred for April May and June farrow. A yearling Boar and a few younger Spring pigs. Chase Stock Farm, Marlette, Mich.

**Fine Registered Berkshire pigs** for sale, prolific, large litters. C. H. WHITNEY, Merrill, Mich.

**Splendid Berkshires** Late summer and fall litters. Both sexes. Write for prices and pedigrees. BURR B. LINCOLN, Harbor Beach, Mich.

### Brookwater Duroc Jerseys

#### BOARS—Ready for Service

Big type, large bone and rugged with plenty of quality. This is your chance to buy high class individuals at reasonable prices.

**Open Gilts** of choice breeding and right type. Panama Special, The Principal 4th, Orion Cherry King, and Great Orion families. Now is the time to buy before the demand takes all of the good ones.

Write us for Prices and Pedigrees. Mail orders a Specialty. Satisfaction guaranteed.

**BROOKWATER FARM**  
ANN ARBOR, MICHIGAN

H. W. Mumford, Owner J. B. Andrews, Mgr.

#### DUROC JERSEY SWINE

for sale 2 yr. old herd boars, yearling boars and boar pigs, also bred sows and gilts. Write for pedigrees and prices. Come and see them. THOS. UNDERHILL & SON, Salem, Mich.



# Poland China Sale Circuit

Wesley Hile	Oct. 26	Ionia
Boone-Hill Co.	Oct. 27	Blanchard
Leonard & Fisher	Oct. 28	St. Louis
Chas. Wetzel & Sons	Oct. 29	Ithaca
W. Brewbaker & Sons	Oct. 30	Elsie

These firms, members of Central Michigan Poland China Breeders' Assn., will present to the public an offering of Poland China swine, such as has never before been offered in the state. The sales will be held at above named places and will give the farmer an opportunity to fit his exact needs with breeding swine that will produce more pork for the same amount of feed consumed. This is an opportunity of a lifetime, for these firms will sell to the highest bidders sows and boars of the highest individual merit from the best blood lines of the breed. Col. Harry A. Eckhart of Illinois and Col. Ed. Bowers of Indiana will do the selling. These men are artists as livestock salesmen, and it will do the breeders and farmers of our good old state an untold amount of good to be at the sales. It will help to get them acquainted with the breed from an educational standpoint. Michigan is recognized today, as never before, as a state that produces as good hogs as any state in the Union. It is now up to the breeders and farmers to produce hogs of more and better quality. Quality always brings the top price on the open market as well as in the sales ring.

Write for catalogs to the above firms or the secretary of the association. Poland China breeders are urged to join the association. Write to secretary.

## CENTRAL MICHIGAN POLAND CHINA BREEDERS' ASSOCIATION

E. R. LEONARD, St. Louis, Pres. C. A. BOONE, Blanchard, Sec'y.  
W. M. KELLY, For The Michigan Farmer

### AUCTION SALE

## BIG TYPE POLAND CHINAS

50 Head  
Tuesday  
Oct.  
26  
1 P. M.



Miss Columbia 760748.  
Litter Mate to The Yankee and The Pilot

50 Head  
Tuesday  
Oct.  
26  
1 P. M.

## WESLEY HILE, Ionia, Michigan

(In Central Michigan Poland China Circuit)

A special attraction at this sale will be four boars and two gilts from Miss Columbia. These pigs are coming along in nice condition. High backs, good length, deep and wide, strong feet, big bone, smooth coats, neat heads and wide open eyes. This very mating Yankee-Long Boy, were the biggest winners at the 1919 Iowa State Fair.

A real attraction will be one boar and four gilts from Gertsdale Jessie, sired by the Clansman, the famous \$50,000 Poland China sire. This is the mating that did so much to make my 1919 sale a success. This year's pigs are even better. They will be nearly four months old at sale time.

Another attraction is an exceptionally good yearling sow by the Yankee, the \$40,000 sire of good ones, and out of a Big Fred dam. These blood lines are right up to the minute, and produce pigs with quality.

One more attraction is the two quality sows, Miss Bob Wonder and her litter mate. Miss Bob Wonder is out of Gertsdale Jessie, the dam of the Clansman litter, and won first in her class of 13 at the 1920 Michigan State Fair, also first at Bay City and again at Grand Rapids. Her litter mate is an even better sow.

Some more attractions will be one litter by Lord Clansman from one of the classiest yearling sows in Michigan, carrying the blood of Gertsdale Jones and Giant Ben. A litter by L's Big Orange and from the litter mate to Miss Bob Wonder is exceptional. Likewise Miss Bob Wonder's litter by Livingston's New Prospect boar are desirable.

Buyers at this sale will get the benefit of over \$1,000 paid in service fees to the best sires of the Poland China breed during the past year.

No culls.—No scrubs. Everything double-immuned for cholera and guaranteed as breeders.

Eight boars represented in spring pigs alone. Sale at farm, one o'clock, October 26. Catalogs will be mailed on application.

WESLEY HILE, IONIA, MICH.

Col. Ed. Bowers, Auctioneer.

W. M. Kelly for The Michigan Farmer

## CAPITAL VIEW FARM GUERNSEYS

To be offered at an  
**Absolute Dispersal Sale**

Wednesday, October 27, 1920, Lansing, Mich.

E. J. HIMMELBERGER, Owner

An exceptionally choice lot of Registered Guernsey Cows and Heifers, also a few fine bulls, will be offered at this high class Sale. Entire herd under Federal supervision and has just passed second clean test.

### PRIZE WINNERS INCLUDED IN THE SALE

At the 1920 Michigan State Fair, Mr. Himmelberger was successful in winning many prizes including: 1st prize Junior Yearling Bull; 1st prize Junior Yearling heifer; 1st prize Senior yearling heifer; 2nd prize Senior Heifer Calf. All of these animals are listed in the sale.

### FIFTEEN DAUGHTERS AND TWO SONS

Of Golden Nassau of Pencoyd No. 29103 are offered. This bull is sired by Langwater Pencoyd A. R. (who is by Dolly Dimple's May King of Langwater A. R. and out of a 592-lb 2 year old daughter of Imp. King of the May A. R.); and out of Gold Preel of Pencoyd A. R. Milk 11,392-lbs. B. Fat, 622-lbs., sired by Imp Golden Secret of Lillyvale A. R.

### ALL FEMALES ARE BRED

To Upland's Monarch of the May No. 32430, who is by Florian Monarch No. 20771 (AR) a son of Ne Plus Ultra A. R. and out of a 543-lb. daughter of Pretor, (A. R.); dam is Ellen May Queen of Glenmore A. R., milk 16,139-lbs., B. Fat 816.24-lbs.

Auctioneers: LOVE and BENJAMIN

Send for catalogue at once to

F. E. FOX, Sales Manager

Waukesha, Wis.

OCT. 22nd

OCT. 22nd.

Friday Oct. 22nd at 10 o'clock Howell Sales Company of Livingston County; The Oldest Sales Company of Livingston County will hold their

7th ANNUAL SALE OF

## 80 Head of Reg. Holstein Cattle

at the sale pavilion on the Fair Grounds at Howell, Mich.

Catalog Oct. 10th.

Auctioneer J. E. Mack, S. T. Wood in the Box  
Wm. Griffin, Sec. R. 5, Howell, Michigan

## Leonard's Champion Poland China Herd

Showed ten head at the Michigan State Fair and won second on under a year boar, second and fourth on under 6 months pig. First aged sow, second senior yearling. First and fourth under a year. First, second, third on sow pigs. First on breeders herd, first on exhibitors herd, first on get of sire, first produce of dam. Grand Champion sow, senior champion sow and junior champion sow. All of these winners, except three, were sired by Leonard's Big Bob and his blood will be represented strongly in the sale. Sale date October 28. Write for catalog and information. All hogs on the farm cholera immune. E. R. LEONARD, ST. LOUIS, MICH.

## O. I. C. SOWS FOR SALE

One of the Best Herds in Michigan

Young sows due to farrow in September. Spring boars ready for shipment. Choice individuals of BIG TYPE breeding. I ship C. O. D. pay express and register in buyer's name.

J. CARL JEWETT,

R. 5, Mason, Michigan.

### HOGS



Spring pigs by Walt's Orion, First Sr. Yearling  
Detroit, Jackson, Gd. Rapids and Saginaw 1919  
Phillips Bros, Riga, Mich.

For Sale Duroc Jerseys of the big heavy boned type.  
CHAS. BRAY, Okemos, Mich.

Duroc sows and gilts bred to Walts King 29499 who has sired more 1st and 2nd prize pigs at the State Fair in last 2 years than any other Duroc boar. Everyone will be a money maker for the buyer. Cat. and price list.  
NEWTON BARNHART, St. Johns, Mich.

DUROCS spring boars. A few gilts bred for Sept. farrow at bargain prices.  
W. O. TAYLOR, Milan, Mich.

Durocs: Do you want young boars sired by Pathfinder, I have them.  
E. D. HEYDENBERG, Wayland, Mich.

OAKWOOD FARM DUROCS  
We can furnish you with anything from a weanling pig to a boar of herd heading caliber at reasonable prices. Your inspection and correspondence is solicited.  
RUSH BROS., Romeo, Mich.

12 Choice Duroc gilts bred to farrow July and August. Daughters of Michigan Cherry Col. bred to Jacks Cherry Orion King Number 169253. Son of the \$10,000.00 champion Jacks Orion King 2nd. All large type, heavy bone gilts, 250 to 300 lbs.  
THE JENNINGS FARM, E. I. Bailey, Mich.

Duroc Jersey hogs. Cholera Immune. Orion Cherry King and Col. breeding. O.C.K. Boar 1 yr. old O.C.K. Boar 3 yrs. old wt. 800 lbs. Fifty September pigs, sired by Michigan Panama Special 2nd. Also some fall gilts.  
HARRY MARTIN AND SON, Spring-Brook Stock Farm, Paw Paw, Mich.

Write Me at once I have just what you want heavy bone registered Duroc Jersey boars ready for service.  
W. H. MAYES, L. B. 505, Durand, Mich.

Duroc Jerseys of the right type, good blood lines and in good condition. Guaranteed to suit you. W. E. Bartley, Alma, Mich.

Duroc Jersey's. Herd headers in boars. Why? Because they are bred right, fed right, grown right and from Grand Champion stock. Write or better come and see.  
F. J. DRODT, R. 1, Monroe, Mich.

Duroc Pigs. \$10.00 each. Pedigree furnished. open gilts for sale at \$40 and \$50. with papers. Duroc boars: \$25. old enough for service.  
FRANK LAMB, Cassopolis, Mich.

Michigana Farm Durocs. Service boars and open gilts for sale at \$40 and \$50. These are real hogs. Satisfaction guaranteed.  
O. F. FOSTER, Mgr., Pavilion, Mich.

### DUROC JERSEYS

Carey U. Edmonds, Hastings, Mich.



I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at six months old. Write for my plan—More Money from Hogs.  
G. S. BENJAMIN, R. F. D. 10, Portland, Michigan

Big Type Chester Whites. Choice, stretchy spring boars, also tried sows and fall gilts bred for Sept. litters. These hogs are big and will fatten at any age. Grand champion blood lines of the breed. Wildwood Prince Jr., Rajah, and Champion X. Cholera immune. Satisfaction guaranteed.  
N. L. HILL JR., Mackinaw, Tazewell Co. Ill.

CHESTERS two good fall gilts bred to a boar of Wildwood Prince Jr. breeding for Sept. farrow; spring pigs.  
F. W. ALEXANDER, Vassar, Mich.

SPECIAL prices on Fall, Winter and Spring boars during October.  
WEBER BROS., R. 2, Royal Oak, Mich.

O.I.C.'s choice spring pigs either sex. Booking orders for fall pigs. We register free and ship C. O. D.  
A. J. BARKER & SON, Belmont, Mich.

Look for Miller Meadows L. T. P. C.'s at Marshall Calhoun Co. Fair, Sept. 21-25.  
CLYDE WEAVER, Ceresco, Mich.



## AWARDS AT GRAND RAPIDS.

(Continued from page 495).

first; H. E. Powell, second; C. A. Williams, third; B. D. Kelly, fourth.  
Pen of Four Lambs—C. A. Williams, first; H. E. Powell, second; B. D. Kelly, third.

Champions—Kope Kon Farm, first ram two years or over, ram under two years, ewe two years or over, ewe under two years, grand ram, grand ewe, pen of three yearling ewes pen of three yearling rams.

## Hampshires.

Kope Kon Farm won in all divisions of this class.

## Lincolns.

Ram, Two Years or Over—A. H. McLean, Kerwood, Ont., first and second; C. D. McLean, Kerwood, Ont., third and fourth.

Ram One Year Old, Ram Lamb, Ewe Two Years or Over, Ewe One Year Old, Ewe Lamb, Flock of Four, Pen of Four—A. H. McLean, first and second; C. D. McLean, third and fourth.

Champions—A. H. McLean, first ram two years or over, ram under two years, ewe two years or over, ewe under two years, grand ram, grand ewe, pen of three yearling ewes, pen of three yearling rams.

## Oxfords.

Ram, Two Years or Over—Adam A. Armstrong, Fergus, Ont., first; W. E. Gardiner, Morley, second.

Ram, One Year Old—Adam A. Armstrong, first and second.

Ram Lamb—A. A. Armstrong, first and second; W. E. Gardiner, third and fourth.

Ewe Two Years or Over, Ewe One Year Old, Ewe Lamb, Flock of Four, Pen of Four Lambs—A. A. Armstrong, first and second; W. E. Gardiner, third and fourth.

Champions—A. A. Armstrong, first ram two years or over, ram under two years, grand ram, grand ewe, pen of three yearling ewes, pen of three yearling rams.

## Southdowns.

L. C. Kelly, Plymouth, won everything in this class.

## Cotswolds.

Shuttleworth Bros., Ypsilanti, won everything in this division.

## Leicesters.

Ram, Two Years or Over—William McLean & Sons, first and fourth; C. D. McLean, second; Shuttleworth Brothers, third.

Ram, One Year Old—William McLean & Sons, first and second; C. D. McLean, third; Shuttleworth Brothers, fourth.

Ram, One Year Old—William McLean & Sons, first and second; C. D. McLean, third and fourth.

Ewe, Two Years or Over—William McLean & Sons, first and second; Shuttleworth Brothers, third; C. D. McLean, fourth.

Ewe, One Year Old—William McLean & Sons, first and second; C. D. McLean, third; Shuttleworth Brothers, fourth.

Ewe Lamb—Wm. McLean & Sons, first and second; C. D. McLean, third; Shuttleworth Brothers, fourth.

Flock of Four—William McLean & Sons, first; C. D. McLean, second; Shuttleworth Brothers, third.

Pen of Four Lambs—William McLean & Sons, first; Shuttleworth Brothers, second; C. D. McLean, third.

Champions—Wm. McLean & Sons, first, ram two years or over, ram under two years, ewe two years or over, ewe under two years, grand ram, grand ewe, pen of three yearling ewes, pen of three yearling rams.

## Horned Dorsets.

B. D. Kelly, Plymouth, won in all classes.

## Cheviots.

L. C. Kelly, Plymouth, won in all divisions.

## Fat Sheep.

Two Long Woolled Wethers, One Year or Over—A. H. McLean, Kerwood, Ont., first.

Two Middle Woolled Wethers, One Year or Over—L. C. Kelly, first; B. D. Kelly, second.

## Tunis.

F. E. Simpson, Ypsilanti, won everything in this class.

The honey market now seems to be strengthening, and a great deal of Michigan honey is going to be sold locally this year. Mr. Kindig, of the M. A. C., advises that the early packing for colonies to be wintered outdoors be not neglected, and that those persons expecting to buy queens and package bees for early delivery next spring place their orders now in order to assure prompt shipments when they are needed.

# The Cheapest Feed You Can Buy

Which is the feed for you to use?

The feed for which you pay the least money?

Or the feed which produces biggest profits?

Figure it out for yourself. You may save three or four cents on a cow's feed with a low price ration.

Or you may get one, two, or three quarts more milk with Larro.

Which pays best?

Write us for names of successful dairy-men in your neighborhood who use Larro because it's the cheapest feed they can buy—the feed for biggest profits.

**The Larrowe Milling Company**  
501 Larrowe Bldg., Detroit, Mich.

## Larro-feed

MANY IMITATIONS. PROVE ITS SUPERIORITY

(1)



**"You Get More Milk or Your Money Back"**

## HOGS

### The World's Champion

big type O.I.C's. Stock of all ages for sale. Herd headed by Calloway Edd, the World's Champion O. I. C. boar assisted by C. C. Schoolmaster. Grand Champion boar of Michigan, New York and Tennessee state fairs. Also, C. C. Giant Buster, undefeated Senior boar pig wherever shown and Grand Champion of Oklahoma state fair. Get our catalogue of Crandell's prize hogs. Cass City, Mich.

**O. I. C's** Eight young boars and spring pigs for June shipment.  
CLOVER LEAF STOCK FARM, Monroe, Mich.

### Central Mich. O. I. C. Swine Breeders Ass'n.

Hogs of all ages of popular blood lines. Every sale guaranteed by association.

**DR. H. W. NOBLES,**  
Sales Mgr. Coral, Mich.

**FOR SALE** Registered Big type Poland China gilts bred for Sept. farrow, weighing 225 lbs. for \$50, spring pigs all sold, guarantee satisfaction. DORUS HOVER, Akron, Mich.

**O. I. C.** Gilts bred for July and Aug. farrow. Also spring farrowed pigs.  
G. P. ANDREWS, Danville, Mich.

**O. I. C.** Gilts bred for Sept. farrow and spring pigs.  
F. O. BURGESS, R. 3, Mason, Mich.

**O. I. C's.** One last fall boar wgt. 425, two last fall gilts, bred lots of spring pigs and this fall pigs either sex. Good growth stock 1/2 mile west of Depot, Ott's. Phone 124. Otto B. Schulze, Nashville, Mich.

**For Sale.** O. I. C. pigs wt. 35 to 40 lb. both sexes. Cholera immune. Sent C. O. D. Price \$29. 100% pure. Also reg. yr. sow, open, price \$30. SLAYBAUGH & BROWN, R. 2, Pittsford, Mich.

### Poland China Special

Boar pigs sired by Monster Big Bob and from our best sows, priced right for immediate shipment. Big-boned, strong-backed, smooth, fellows from popular blood lines. Write for information or visit the farm.  
BOONE-HILL CO., Blanchard, Mich.

**Big Type** Poland Chinas special bargains on sows for October farrow, and boars all ages, same ready for service.  
G. A. BAUMGARDNER, R. 2, Middleville, Mich.

### L. S. P. C.

Everything sold previously ad. 25 spring pigs placed on the bargain counter for mo. of Sept. pairs or trios not akin.  
H. O. SWARTZ, Schoolcraft, Mich.

### Big Type Poland Chinas

Our herd is representative of the best in Big Types. Choice boars for sale now. Wesley Hile, R. 6, Ionia, Mich.

**L. T. P. C.** We have a large number of spring and summer pigs ready to ship sired by such boars as "Hart's Black Prince," "Leonard's Big Bob," the "Model Clansman" and "Prospect Yank" a great son of the \$80,000 Yankoo. Write for prices or come and look them over if you are in the market.  
HART, FULCHER & OLIVE, address F. T. Hart, St. Louis, Mich.

Closing out sale of big type Poland China hogs, which represents the work of 25 years of constructive breeding. Everything goes, including our three great herd boars, "Mich. Buster" by "Giant Buster," "A Giant" "Butler's Big Bob." Two of the best yearling prospects in Michigan great length, big bone. Come get your pick. Jno. C. Butler, Portland, Mich.

**Big Type Poland Chinas.** We want to sell you a boar pig. If interested write us and we will tell you all about him. We guarantee satisfaction.  
HILLCREST FARM, Kalamazoo, Mich.

**Big Type P. C.** Bred gilts, Fall yearlings, prize winners, out 1100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

6 boar pigs best I have raised in my 15 years of breeding sired by Big Bob Mastodon a son of the world's champion. Price \$50 and 50 fall pigs send orders now. C. E. GARNANT, Eaton Rapids, Mich.

**BIG T. P. Chinas** for sale. A few tried sows, spring boars. Aug. pigs both sex. Recorded free in buyer's name. L. L. Chamberlain, Marcellus, Mich.

I am offering Large Type Poland China Sows, bred to F's Orange, at reasonable prices; also fall pigs. Write or call Clyde Fisher, St. Louis, Mich. R.R.3.

**Large Type Poland China** pigs, both sexes now ready, write for description and prices.  
RALPH SHERK, Caledonia, Mich.

**Lindhurst Poland Chinas** Stock for sale at all times. Public Sale Oct. 23.  
WM. H. LIND, Alto, Mich.

**POLAND CHINAS**  
W. J. HAGELSHAW, Augusta, Mich.

Leonard's B. T. P. C. See exhibit at Mich. State Fair. I got your name on mailing list for public sale Oct. 23. Double immune, E. R. Leonard, St. Louis, Mich. R.3.

**Large Type Poland Chinas.** Everything immuned by double treatment. Meet me at Detroit, or Jackson Fairs. A. A. Feldkamp, R. 2, Manchester, Mich.

**BARGAINS** on Big type spring and summer Poland B China Pigs also yearling Shorthorn bulls, bull and heifer calves.  
Robert Neve, Pierson, Mich.

**Big Type Poland China** boars best choice. Frank Oliver, R. 2, Saline, Mich.

### HAMPSHIRE

1914 . . . . . 1920

Choice Spring boars, popular breeding. Booking orders for fall pigs. All stock Cholera Immuned and guaranteed Breeders. Satisfaction guaranteed.

**STEBEN'S HAMPSHIRE FARM**  
R. 3, Angola, Ind.

**Edgewood Hampshires**  
All bred gilts sold. Now booking orders for gilts bred for fall farrow, and pigs for pig club work only.  
Depew Head, Edgewood Farm, Marion, Ohio.

**HAMPSHIRE** spring boars and fall pigs at a bargain. book your order now for bred gilts.  
JOHN W. SNYDER, R. 4, St. Johns, Mich.

### SHEEP.

**Delaine** Rams B. & C. type, having size, quality, best of breeding, priced to sell, write.  
S. H. SANDERS, R. 2, Ashtabula, O.

**WHITTUM FARM SHROPSHIRE**  
A fine lot of imported and house bred yearling ewes and rams for sale. A fine chance to start a new flock or improve the old one call at the farm or write for just what you want.  
C. H. WHITTUM, Eaton Rapids, Mich.

**Hillcrest Shropshires**  
A nice lot of Ewes and Rams of all ages our flock is headed by McKerrow 3164 a son of Senator Bibby write or call on  
B. J. & C. A. WILLIAMS, Middleville, Mich.

**FOR SALE** 35 Registered Shropshire yearling rams and ram lambs. Also some choice Duroc Jersey boars and gilts.  
CLIFFORD MIDDLETON, Clayton, Mich.

**Shropshires** Am offering one choice two year ram and a few good yearlings.  
C. J. THOMPSON, Rockford, Mich.

**SHROPSHIRE** Yearling and Lamb rams sired by Imp. Herry No. 163 for sale. Also a few ewes.  
ARTHUR DODDS, Lapeer, Michigan

Additional Stock Ads on Page 499



# LATEST MARKET REPORTS

## GRAIN QUOTATIONS

October 13, 1920.

### Wheat.

Detroit.—Cash No. 2 red \$2.20; December \$2.09; March \$2.06; No. 2 white and No. 2 mixed \$2.18.  
Chicago.—No. 3 red \$2.16; No. 1 hard \$2.14@2.15½; December \$2.06; March \$2.02.

### Corn.

Detroit.—Cash No. 2 mixed 97c; No. 2 yellow \$1.02.  
Chicago.—No. 1 mixed 91½@92c; No. 2 yellow 92½@93¼c.

### Oats.

Detroit.—Cash No. 2 white 61c; No. 3 white 59½c; No. 4 white 56½c.  
Chicago.—No. 2 white 55¼@56¼c; No. 3 white 54@55¼c.

### Beans.

Detroit.—Immediate and prompt are higher at \$5 per cwt.  
Chicago.—Quiet. Hand-picked beans choice to fancy at \$5.90@6.25.  
New York.—Dull. Choice pea \$5.75@6; do medium \$7.

### Rye.

Detroit.—Cash No. 2 rye \$1.67.

### Seeds.

Detroit.—Prime red clover spot and October \$13.75; December \$14.25; alsike \$17; timothy \$3.25.  
Toledo.—Prime cash \$13.50; December \$14.20; alsike \$16.75; timothy at \$3.15.

## WHEAT

The fact that the corn crop was to be the largest on record was recognized some time ago, so that the showing of the government October returns was not surprising. The reduction in wheat, however, was much more than the trade believed, the spring wheat yield being cut 19,000,000 bushels during the month to 219,000,000 bushels or only 10,000,000 bushels more than last year. The aggregate of the spring and winter kinds is 751,000,000 bushels which, with a carry-over of 150,000,000 makes a total supply of 901,000,000 bushels available for export and domestic consumption. After allowing for the same consumption, feed, seed, etc., as in 1919 there is about 250,000,000 bushels available for export, of which there has been 100,000,000 bushels actually shipped so far, and an equal quantity sold abroad and will be shipped between now and February 1. On the statistical showing there is only around 50,000,000 bushels more than can be spared if we are to carry over a normal amount into the 1921 crop. The statistical situation favors higher prices for wheat later on, and if financial conditions in this country and abroad will permit prices will go higher. India has received some rain, but needs more. Small exports are noted from that country and Russia. Argentine has received ample moisture and crop reports from that country are much more favorable.

## CORN

A corn crop of 3,216,000,000 bushels, the largest on record, was suggested by the government October 1 crop report, showing 85,000,000 bushels in excess of the September returns and nearly 300,000,000 bushels in excess of last year's harvest. As compared with the five-year average there is an increase of 456,000,000 bushels. Practically all of the leading states have the prospect of a larger crop than a month ago, Illinois gaining 19,000,000 bushels and has 307,000,000 bushels, or 6,000,000 bushels more than last year, while Iowa has 427,000,000 bushels, the second largest yield on record, and compares with 416,000,000 bushels harvested last year. The seven surplus states have a total of 1,707,000,000 bushels, or 64,000,000 bushels in excess of September and compared with 1,464,000,000 bushels harvested last year. In 1912 the total for the country was 3,125,000,000 bushels, of which the seven states had 1,833,000,000 bushels so that, while the total for the country in 1920 is 91,000,000 bushels more than in 1912 the so-called surplus states have 126,000,000 bushels less than in that year. Prices continue to decline.

## OATS

The oats crop is estimated at 1,444,000,000 bushels, or 2,000,000 bushels more than a month ago, and compares with 1,248,000,000 bushels harvested last year. Of barley the crop is 191,

000,000 bushels, or 3,000,000 bushels less than a month ago, and compares with 166,000,000 bushels last year. The flax seed crop aggregates 11,700,000 against 8,900,000 bushels last year, and white potatoes 415,000,000 bushels against 358,000,000 bushels last year.

## SEEDS

Seed prices declined still further the past week, reaching the lowest point of the season. Prices have reached a level at which much light yielding acreage will be abandoned because it will not pay for hauling. Receipts are falling off.

## FEEDS

Views of extremely bearish operators who several months ago predicted that bran would go to \$30 in milling centers were verified when sales were made last week at \$28 at Kansas City and \$29 at Minneapolis. The uncertain feeding outlook, the crisis in certain dairy districts, the abundance of feed grains and good fall pastures along with open weather, have cut the demand to unusually small volume. All feeds are lower, middlings declining more rapidly than bran. Mills are becoming more unwilling to sell, but some further decline may take place before winter demand revives. Latest quotations per ton (100-lb bags) in car lots at Chicago are: Bran \$45; standard middlings \$53; flour middlings at \$62; cottonseed meal 41 per cent, \$58; cottonseed meal 36 per cent, \$55; gluten feed \$50; hominy feed \$58; old process oil meal \$66; tankage \$107.

Detroit.—Bran \$45@46; standard middlings \$51@52; flour middlings at \$61; coarse corn meal \$50; cracked corn \$52@53; chop \$61.

## HAY

Prices for hay in central markets leave little for the producer when the costs of harvesting, baling, hauling

to market, freight and handling charges are subtracted. There is no early fall demand, but producers may decide to hold rather than sell for little or nothing, and cold weather is certain to prove a slight stimulus to buying.

Detroit.—No. 1 timothy \$30@31; standard \$29@30; light mixed \$29@30; No. 2 timothy \$28@29; No. 1 mixed \$28@29; No. 1 clover \$27@28; rye straw \$14.50@15; wheat and oat straw \$13.50@14.

## BEANS

Although the bean crop prospect has been improving during the last month according to the government's estimate as of October 1, which was 9,364,000 bushels, it is far below the average yield of 14,600,000 bushels during the preceding six years. Current prices are below cost of production and producers are declining to sell, which is making the market more steady. Latest quotations upon choice Michigan beans run \$5 f. o. b. Michigan or \$5.50 f. o. b. Chicago.

## EGGS AND POULTRY

Receipts of eggs at leading markets fell off during the past week and are running considerably below those of last year. Prices advanced on the best grades at most points. Receipts of dressed poultry at four leading cities since January 1, 1920, are 108,674,742 lbs, compared with 134,016,641 lbs a year ago. Prices sagged slightly in a number of markets during the past week. Latest prices are as follows: Chicago.—Eggs, fresh firsts 57½@60½c; ordinary firsts 51@54c. Poultry, spring chickens 27½c; hens, general run 22@26½c; roosters 21½c; ducks, old and young 25@30c; geese, old and young 22@23c; turkeys, fancy 45c per lb.

Detroit.—Eggs, fresh candled 56@58c. Live poultry, spring chickens 30c; Leghorns 28@29c; hens 30@32c; small

hens 26@27c; roosters 20@22c; geese 22c; ducks 30@34c; turkeys 45c.

## BUTTER

Butter markets have been badly upset the past week. The advance of last week continued on extras during the early trading. Later a weak tone came over the market and bearish sentiment has grown very strong. Without much prospect of export trade in sight and importations continuing to come into the country, it is natural that the market on butter should turn weak. The closing price on score butter were 60c at New York and 61c on each of the other markets, showing a net decline for the week in each case except Chicago. The range between 92 and 86 score price was at one time from 13c to 16c on each of the markets.

## WOOL

American wool markets report only minor sales during the week and these at somewhat lower prices. Woolen goods markets are unsettled, the recent marking down of prices has not stimulated buying as yet and many mills remain idle. The Australian auction sales which opened during the week and which the trade has looked to as a means of establishing what wools are really worth gave little encouragement. While there was a good demand for superior wools, the inferior sorts were not wanted. The prices established would make wools landed in this country about 20 to 25 per cent cheaper than values recently quoted on domestic wools.

## POTATOES

The movement of potatoes suddenly increased about 80 per cent to around 1100 cars per day and caused weakness in the potato markets at last week's close. There are signs of a still higher rate of shipments which points to a lower market. Maine growers are said to be holding for higher prices.

Chicago.—Northern Whites \$1.90@2 per cwt; Early Ohios \$1.90@2.

Cleveland.—Michigan Round Whites \$4 per 150-lb sack; New Jersey Giants \$3.25 per 150-lb sack.

Detroit.—Michigan \$3.25@3.50 per 150-lb sack.

## APPLES

There has been a slight improvement in the tone of the apple markets, but values have not been materially altered. The export movement is large, but total shipments to markets have increased to over 1,000 cars a day. The government's estimate for October 1 showed slight increases in the yields, both of total and commercial crops over the promise of a month ago.

## DETROIT CITY MARKET

Light offerings and slow trading characterized the city markets. The potato supply is lower and growers generally were holding for \$1.40@1.50 per bushel, but occasional lots moved at \$1.30; \$2.50 was the best price on fancy apples, and \$1.50@2 was the range on firsts. A very light supply of grapes was offered and the demand was slow at \$3@3.50 a bushel. There was a good demand for best grade tomatoes which brought as high as \$4 per bushel.

## COMING LIVE STOCK SALES.

Holsteins—October 16, John B. Martin, Grand Rapids, Michigan.

Holsteins—October 18, West Michigan Sale, State Fair Grounds, Grand Rapids, Michigan.

Holsteins—October 19-20-21, Michigan Holstein-Friesian Association. See advertisement for locations.

Holsteins—October 22, Howell Sales Company, Fair Grounds, Howell, Michigan.

Poland China—October 22, Evergreen Stock Farm, Greenville, Michigan.

Poland China—October 26-30, Central Michigan Poland China Breeders' Association. See advertisement for dates and locations.

Guernseys—October 27, E. J. Hummelberger, Lansing, Michigan.

Holsteins—Michigan Holstein-Friesian Association. See advertisement for dates and locations.

## Live Stock Market Service

### DETROIT

#### Cattle.

Market very dull at Tuesday's decline; 50c@1 lower than last week.  
Best heavy steers ..... \$11.50@11.75  
Best handy wt bu steers 9.00@10.00  
Mixed steers and heifers 8.00@ 8.75  
Handy light butchers .... 6.50@ 7.75  
Light butchers ..... 5.50@ 6.50  
Best cows ..... 7.50@ 7.75  
Butcher cows ..... 5.50@ 6.75  
Common cows ..... 4.50  
Canners ..... 3.00@ 4.00  
Choice bulls ..... 7.00  
Bologna bulls ..... 6.00@ 6.25  
Stock bulls ..... 5.00@ 5.75  
Feeders ..... 7.50@ 8.75  
Stockers ..... 5.50@ 7.25  
Milkers and springers....\$ 65@ 100

#### Veal Calves.

Market dull.  
Best ..... \$18.00@19.00  
Others ..... 7.00@16.00

#### Hogs.

Market is steady to 25c higher.  
Pigs and yorkers ..... \$16.10@16.25  
Mixed hogs ..... 16.00

#### Sheep and Lambs.

Market 25c lower.  
Best lambs ..... \$11.00@11.50  
Fair lambs ..... 9.50@10.50  
Light to common ..... 5.00@ 8.00  
Fair to good sheep ..... 5.00@ 5.50  
Culls and common ..... 2.00@ 3.00

### CHICAGO

#### Hogs.

Estimated receipts today are 13,000; holdover 3,739. Market 15@25c higher. Bulk of sales \$14.25@15.75; tops at \$15.90; heavy 250 lbs up medium, good and choice \$14.75@15.75; medium 200 to 250 lbs, medium, good and choice at \$15.35@15.85; light 150 to 200 lbs common, medium, good and choice \$15.10@15.85; light lights 130 to 150 lbs common, medium, good and choice \$14.65@15.50; heavy packing sows 250 lbs up smooth \$14.15@14.60; packing sows 200 lbs up rough \$13.85@14.15; pigs 130 lbs down medium, good and choice \$14.25@15.40.

#### Cattle.

Estimated receipts today are 12,000.

Market very slow, undertone weaker. Beef steers, medium and heavy weight 1100 lb up choice and prime \$17@18; do medium and good \$12@16.75; do common \$9@11.75; light weight 1100 lbs down, good and choice at \$14.50@18.25; do common and medium \$8.25@14; butcher cattle, heifers, common, medium, good and choice \$6@13.25; cows, common, medium, good and choice \$5.25@11; bulls, bologna and beef \$5.25@11; canners and cutters, cows and heifers \$3.75@5; do canner steers \$4.50@6.75; veal calves, light and handyweight medium, good and choice \$13.50@16.50; feeder steers, common, medium, good and choice at \$7.50@11.75; stocker steers, common, medium, good and choice at \$4.50@9.50; stocker cows and heifers, common, medium, good and choice \$4.50@8; western range cattle, beef steers, medium, good and choice \$9@14; do cows and heifers, medium, good and choice \$7@9.75.

#### Sheep and Lambs.

Estimated receipts today are 22,000. Market steady. Lambs 84 lbs down, medium, good, choice and prime \$10.50@13.25; do culls and common \$7.50@10; spring lambs, medium, good, choice and prime \$8.25@10.50; ewes, medium, good and choice \$4.75@5.85; ewes, cull and common at \$2.25@4.50; breeding ewes, full mouths to yearlings at \$5@8.50; yearling wethers, medium, good and choice \$10.75@12.65.

### BUFFALO

#### Cattle.

Market generally dull but good offerings above last week's range. Shipping steers \$15@17; butchers \$9@14; yearlings \$15@17; heifers \$6@11.50; cows \$2.50@9.50; bulls \$5.50@9.50; stockers and feeders \$5.50@8.50; fresh cows and springers slow and steady at \$65@130. Calves steady at \$6@20.

#### Hogs.

Market is below last week's close. Heavy, mixed yorkers, light yorkers and pigs \$16.75@17; others sold up to \$17.25.

#### Sheep and Lambs.

Lower than last week. Lambs \$7@12.75; yearlings \$6@9; wethers \$7@7.50; ewes \$3@6; mixed sheep \$6.50@7.



## LIVE STOCK MARKETING.

(Continued from page 470).

is too expensive and would be too old to be of value before tabulations could be completed.

Since Mr. Callander suggested that the Bureau of Crop Estimates needed \$200,000 to start the service, assuming that the farm bureau members cooperated freely, it was suggested by some of the representatives that the farmers own organizations should undertake the work rather than wait upon an appropriation from congress, while others advised this plan because it would give the members information which they alone could use. Mr. Callander replied that the information would only be valuable when distributed to all members which would make it impossible to keep it under cover.

E. W. Baker, of Chicago, representing the United States Bureau of Markets, told of the work of that organization in reporting the five leading live stock markets. The daily estimates of receipts are computed by the bureau so that they are official and unbiased, telegraphic reports are exchanged between the markets during each day and brief reports upon market changes as well as quotations are furnished to the telegraphic companies and news bureaus through which they reach numerous daily papers and private individuals. The offices of the bureau at each market also send free to persons requesting it a daily letter which discusses market conditions, gives detailed quotations, receipts, shipments and also conditions in the dressed meat trade.

Knute Espe, of Ames, Iowa, president of the National Cooperative Live Stock Shippers' Association urged the formation of more local shipping associations. He mentioned the need for uniform methods of accounting by commission companies, advocated that each local association provide its own insurance instead of using the more expensive commercial form, and that payments for losses should not be made in full so that growers would be more careful not to overheat or deliver animals otherwise out of condition for shipment. He favors the formation of cooperative commission companies.

C. H. Watts, manager of the Farmers' Union Cooperative Commission Companies at Omaha, Kansas City, Sioux City, St. Joseph and Denver told of the success of that work. The oldest firm is located at Omaha, and started there three years ago. The first year thirty-eight per cent of the commissions were rebated, the second year forty-six per cent, the third year fifty per cent, and the company was saving at the rate of sixty-five per cent of the commission before the recent commission rate increases were put into effect. It is now the largest firm at Omaha. At first only seven per cent of the business of the members of the Farmers' Union who shipped to Omaha came to it, but now it handles fifty-five to sixty per cent of the members' business. They have developed outside connection so that they are able always to make a clearance without depending upon the speculators.

H. M. Osborne, of the Equity Live Stock Commission Companies at St. Paul and Chicago, told how his organization had developed an outlet direct to farmers for the stockers and feeders produced in St. Paul territory, thus cutting out two commissions, the speculator's profit and the excessive fill between the northwestern seller and the corn belt buyer.

## NEWS OF THE WEEK.

(Continued from page 470).

close Germany's famed university at Munich. Night riders threaten to destroy cotton fields in Alabama following the notification of gin owners that no more cotton might be ginned until the price should reach thirty-five or forty cents.

Monday, October 11.

SWITZERLAND decides to officially recognize the present Hungarian government and will resume diplomatic relations with that country. It is rumored that several Cuban banking institutions are in financial difficulty

on account of heavy loans made when sugar was on the high price level.

Tuesday, October 12.

THE State Department at Washington is watching closely political developments in Cuba where it is recognized the situation is grave, due partly to serious financial conditions. Greek royalists appeal to Great Britain and France to remove the Venizelos government and establish a neutral government. Reports of a revolutionary uprising in Venezuela are discredited.

## STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF AUGUST 24, 1912.

of The Michigan Farmer, published Weekly at Detroit, Michigan, for October 1, 1920.

State of Michigan, County of Wayne.

Before me a Notary Public in and for the state and county aforesaid personally appeared I. R. Waterbury, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the Michigan Farmer, and that the following is to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are:

Publisher, The Lawrence Publishing Co., Detroit, Michigan.

Editor, Burt Wermuth, Detroit, Mich. Managing Editor, I. R. Waterbury, Detroit, Mich.

Business Manager, I. R. Waterbury, Detroit, Mich.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding one per cent or more of the total amount of stock).

M. J. Lawrence, Washington, D. C. Carrie J. Lawrence, Washington, D. C.

P. T. Lawrence, Detroit, Mich. Olive M. Lawrence, Cleveland, Ohio. Estate of M. L. Lawrence, Cleveland, Ohio.

F. H. Nance, Lakewood, Ohio. Neff Laing, Philadelphia, Pa. E. D. Pope, Cleveland, Ohio. Nellie B. Christopher, Cleveland, Citizens' Sav. & T. Co., Cleveland, Ohio, Trustee under the will of M. W. Lawrence, (Beneficiaries, Nellie J. Lawrence, Mary Lawrence and Mortimer Lawrence).

Mrs. G. B. Rogers, Cleveland, Ohio. Lillian Cotton, Cleveland, Ohio. R. M. McConville, Cleveland, Ohio. Kate E. Munsell, Detroit, Mich. J. F. Cunningham, Lakewood, Ohio. I. R. Waterbury, Detroit, Mich.

3. That the known bondholders, mortgagees, and other security holders owning or holding bonds, mortgages, or other securities are: (If there are none, so state).

Maria E. Dunk, Detroit, Mich.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is. (This information is required from daily publications only).

(Signed)

I. R. WATERBURY,

Business Manager.

Sworn to and subscribed before me this Seventh Day of October, 1920.

CLARENCE E. HAMLIN.

Notary Public.

(My Commission Expires October 12, 1921).

## Feed Every 3rd Hog FREE

Save feed and get your hogs ready for market in less time. Prove at our risk that you can save fully one third your feed, making it possible to feed every third hog free by feeding

## Milkoline At 2c a Gallon

Milkoline has a base of pasteurized and sterilized, modified Buttermilk. It is guaranteed not to contain any sulphuric acid or anything of an injurious nature to hogs or poultry.

**Aids Digestion:** Thousands of the most successful hog raisers from New York to California during the past seven years have proved that Milkoline helps and assists digestion, tending to insure perfect assimilation of feed. It helps tone up the system so that hogs are less subject to disease, and practically insures gains of 2½ pounds per head per day.

**University Tested** Professor W. B. Combs while Ass't. Prof. of Dairy Husbandry at Missouri University conducted a scientific test on Milkoline and found that Milkoline fed hogs put on more weight and showed 82.57% more profit than hogs not fed Milkoline. W. H. Graham a successful feeder of Middletown, Mo., said \$30 worth of Milkoline made him an extra profit of \$420. Lee Jackson of Wappingers Falls, N. Y., says Milkoline fixed up a bunch of shoats in fine style and is great for brood sows.

**Can't Spoil:** Milkoline is guaranteed not to rot, sour or mould. It will keep indefinitely in any climate. Flies do not come near it. It is always uniform, and is guaranteed to make you money or it doesn't cost you anything.

—Distributed by—

SCHWARTZ BROS.,



**2c a Gallon Milkoline** comes in condensed form, and you do the diluting on your own farm. When fed as directed Milkoline mixture (one part Milkoline to 50 parts water or swill) costs only 2c a gallon. Full feeding directions free. It is shipped in convenient kegs and barrels which we supply free. The prices are as follows: 5 gal. \$7.50; 10 gal. \$12.50; 15 gal. \$18.50; 32 gal. \$32.00; 65 gal. \$59.50. It pays to buy in barrel lots because you save 60c a gal. over the 5 gal. quantities.

## 30-Day Guaranteed Trial.

You are safe in ordering any quantity of Milkoline today. Feed one half the shipment to your hogs and poultry in a thirty day test, then if you aren't entirely satisfied return the unused part to us at our expense and we'll immediately refund every cent you paid us. We are so confident that you will find Milkoline the best money maker on the farm that the S. W. Boulevard Bank of Kansas City substantiates this offer. You are the sole judge. Send money order, or check, to us or our nearest dealer, and we will ship immediately. Our booklet, How to Hustle Heavy Hogs to Market will be sent free on request—your name on a card will do.

Saginaw, Mich.

## The First Event at Evergreen Stock Farm

## Big Type Poland China Sale

Friday, Oct. 22, 1920

Greenville, Michigan

1 o'clock sharp

To consist of 48 head of choice gilts, boars and a few sows. Am offering 1 sow with suckling pigs. Lunch served at farm.

C. E. Chandler Auctioneer Wesley Hile Clerk

Write for Catalog

L. B. Stokes, Prop. Greenville, Mich.

45 Years on the Line

Come to Headquarters for

## Cotton Seed Meal

OWL Brand DOVE Brand JAY Brand

## F. W. Brode &amp; Co.

Established 1875. Incorporated 1915. MEMPHIS, TENN.

Our Brand on the Tag Means Quality in the Bag

## Mr. POULTRY FARMER:

We make a specialty of White Henney Eggs and have created a profitable market for your eggs the year around. We pay the highest premium for your Henney Whites—We remit same day shipments arrive. Ship Often—Ship by Express

GEO. R. ELDRIDGE CO.

494-18th Street, Detroit, Mich.

Remember! We guarantee you satisfaction with every shipment

## Eggs

We have a good demand for fancy fresh eggs and will pay you 64c per dozen, delivered Detroit, cases included for express shipments strictly new laid eggs shipped direct by farmers. Old, stale or broken eggs will be settled for at what they are worth. This price good for week ending October 23rd, 1920. AMERICAN BUTTER & CHEESE COMPANY, Detroit, Mich. 2878

## Holmes, Stowe Co., 445 Riopelle St.

Commission Merchants. Dressed Beef, Hogs, calves. Poultry, Live & Dressed, Provisions, etc. Correspondence Solicited. Ref. Wayne County & Home Savings Bank, Bradstreet, Detroit, Mich. 2878

## HAY Ship to The Old Reliable House Daniel McCaffey's Sons,

623-625 Wabash Bldg., Pittsburg, Pa.

## SHEEP

**Shropshires** sire imported Minton Ram Lambs \$20, some ewes, 2 yearling rams. DAN BOOHER, R. 4, Ewart, Mich.

**Shropshires** yearling Rams that have size and type for sale. ARMSTRONG BROS., R. 3, Fowlerville, Mich.

**Shropshire Rams** lambs, yearlings and one 2 yrs. old, priced right. CARL TOPLIFF, Eaton Rapids, Mich.

**Shropshires** Yearling and rams, with quality, from imported stock. W. B. McQUILLAN, R. 7, Howell, Mich.

**Shropshires** yearling rams. Ewes of all ages. Priced right. W. B. KELLY, Ypsilanti, Mich.

**Registered Hampshire** Sheep both sexes prices reasonable. Lone Cedar Farm, Pontiac, Mich.

**Wool-Mutton Shropshire Rams.** Good strong individuals, royally bred, priced right. A. H. FOSTER, Allegan, Mich.

**Registered Shropshire** Rams and ewes all ages for sale. Well-wooled with size and quality. Priced to sell. H. F. Mouser, R. 6, Ithaca, Mich.

**Maple Lawn Farm** Shropshires, rams and ram lambs of choice breeding. Woolled from nose to toes. A. E. Bacon & Son, Sheridan, Mich.

## HAMPSHIRE

Registered Rams all ages. Bred for size, type, quality. Sire at head of flock, I. S. C. No. 2463. Half brother to the Grand Champion ewe at International 1918. Bred by Iowa State College. Also a few good ewes. W. W. CASLER, Ovid, Mich.

**Want a Sheep?** Let American Hampshire Sheep Association send you dandy booklet with list of breeders. Write COMFORT A. TYLER, 22 Woodland Ave., Detroit, Mich.

**Registered Hampshire** Rams ready to ship. 40 yearlings, 20 ram lambs also a few good ewes. A. M. Welch & Sons, J. B. Welch, Manager, Ionia, Mich.

**Reg. Oxfords.** Yearling rams and ram lambs. Good individuals, prices right. HUGH HODGINS, Yale, Mich.

## Oxford Rams For Sale

Choice of 12 Reg. lamb rams at \$35, one good yearling at \$50.00. EARL C. McCARTY, Bad Axe, Mich.

**Oxford Rams** yearling and ram lambs of O. I. C. boars. Stock registered. H. W. MANN, R. 1, Dansville, Mich.

**Cotswolds** yearling rams, ram lambs, ewes all ages sired by Cana. Cotswolds dian rams. A. M. BORTEL, Britton, Mich.

**For Sale** Cotswold, Lincoln, Tunis and Shropshire sheep. Rams all ages, 1 year ewes. L. R. KUNEY, Adrain, Mich.

**For Sale** A nice lot of registered Lincoln yearling, 2 yr. old and ram lambs for sale. Prices reasonable. D. T. KNIGHT, Marlette, Mich.

**FOR SALE** Registered Rambouillet ewes 1 to 5 years old also five yearling Rams. J. W. GRAHAM, Davisburg, Mich.

**For Sale** fine yearling rams. Extra good fleeces, good bone and bred by a Broughton Ram. O. R. LELAND, Ann Arbor, Mich. Phone 75245, R. R. 5.

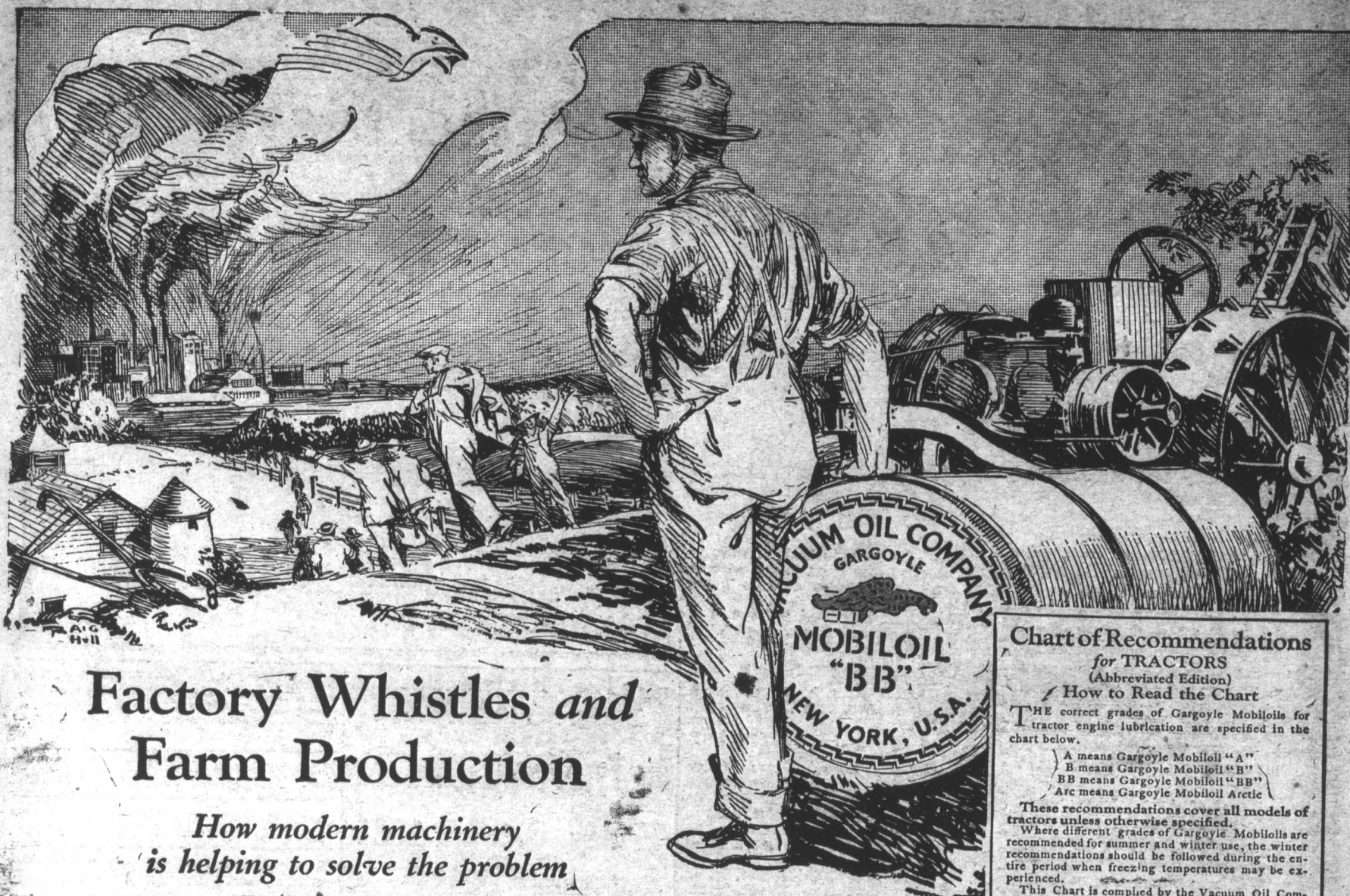
## HORSES

## BAY MARE

For Sale, sound and right in every way, weight about 550 lbs. Must be sold at once cause and see her or write L. J. Hamlin, 436 Huribut Ave., Detroit, Mich.

**Percheron** Stallions and mares at reasonable prices; inspection invited. F. L. KING & SON, Charlotte, Mich.





## Factory Whistles and Farm Production

*How modern machinery is helping to solve the problem*

FROM the jumble of strikes, transportation troubles, and political confusion an alarming condition stands out—Industry is draining productive labor from the nation's farms.

The "hired man" has become a rarity in many sections of the country. The factory whistle allures with the promise of high wages and short working hours. Government reports show a farm-labor supply which is only 72.4% normal.

In this grave situation modern machinery offers a partial solution. Reports of the Department of Agriculture show that the scarcity of labor has had the least effect in districts where farming is done by modern machinery. This brings home again—and in a striking way—the advantage and efficiency of tractors.

Yet farmers who use less than scientific lubrication on their tractors are not getting utmost efficiency. They may not realize it, but

their fuel consumption is excessive and their oil consumption often is positively extravagant. They are playing with loss of power, frequent breakdowns and quick depreciation.

Scientific lubrication means *engine results*. Gargoyle Mobiloils when used as specified in our Chart of Recommendations have in hundreds of public and private tests affected a fuel economy from 17% to 25% and a saving of oil up to 70%.

To sum up: Scientific tractor lubrication insures full power, reduces breakdowns, and thus assists in the solution of a national problem—Farm Production.

\* \* \*

Gargoyle Mobiloils are put up in 1-gallon and 5-gallon sealed cans, in 15-gallon, 30-gallon, and 55-gallon steel drums, and in wood half-barrels and barrels.

Write for "Correct Lubrication," a book containing complete automobile and tractor charts and other valuable data.



# Mobiloils

*A grade for each type of motor*

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container.

VACUUM OIL COMPANY, New York, U. S. A.

*Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world.*

DOMESTIC  
BRANCHES:

New York  
Boston

Philadelphia  
Pittsburgh

Detroit  
Chicago

Minneapolis  
Indianapolis

Kansas City, Kan.  
Des Moines

### Chart of Recommendations for TRACTORS (Abbreviated Edition) How to Read the Chart

THE correct grades of Gargoyle Mobiloils for tractor engine lubrication are specified in the chart below.

A means Gargoyle Mobiloil "A"  
B means Gargoyle Mobiloil "B"  
BB means Gargoyle Mobiloil "BB"  
Arc means Gargoyle Mobiloil Arctic

These recommendations cover all models of tractors unless otherwise specified.

Where different grades of Gargoyle Mobiloils are recommended for summer and winter use, the winter recommendations should be followed during the entire period when freezing temperatures may be experienced.

This Chart is compiled by the Vacuum Oil Company's Board of Automotive Engineers, and constitutes a scientific guide to Correct Tractor Lubrication.

If your tractor is not listed in this partial chart, consult the chart of Recommendations at your dealer's, or send for booklet, "Correct Lubrication for Tractors," which lists the Correct Grades for all Tractors.

Model Year	1920	1919	1918	1917	1916
NAME OF TRACTOR	Summer	Winter	Summer	Winter	Summer
Allen Chalmers (General Purpose)	A	A	A	A	A
All Work	A	A	A	A	A
Appleton	B	B	B	B	B
Autumn-Taylor (18-36)	BB	BB	BB	BB	BB
" (22-45)	BB	BB	BB	BB	BB
" (15-30) (Waukegan)	B	B	B	B	B
" All Other Models	B	B	B	B	B
Avon (5-10)	A	A	A	A	A
" Motor Cultivator & Plow	A	A	A	A	A
" All Other Models	A	A	A	A	A
Barnes (Steel Mule)	B	B	B	B	B
Beaumont (Full)	B	B	B	B	B
Big Bull	B	B	B	B	B
Buckeye (Findlay, Ohio)	B	B	B	B	B
Cat (5-10)	A	A	A	A	A
" (10-18)	B	B	B	B	B
" (12-20)	B	B	B	B	B
" (15-25)	B	B	B	B	B
" (15-27)	B	B	B	B	B
" All Other Models	B	B	B	B	B
Cletrac	B	B	B	B	B
Cleveland	B	B	B	B	B
Coleman	B	B	B	B	B
Columbia	B	B	B	B	B
C. O. D.	B	B	B	B	B
Craig	B	B	B	B	B
Crofting Club	B	B	B	B	B
B. B. (5-10)	B	B	B	B	B
" (Revere)	B	B	B	B	B
" All Other Models	B	B	B	B	B
Flint City (20-35)	B	B	B	B	B
" All Other Models	B	B	B	B	B
Foran	B	B	B	B	B
Gas Full	B	B	B	B	B
Grain Belt	B	B	B	B	B
Happy Farmer	B	B	B	B	B
Hart Parr	B	B	B	B	B
Heider	B	B	B	B	B
Hudson	B	B	B	B	B
Holts	B	B	B	B	B
Holt Caterpillar (Model 18)	B	B	B	B	B
" (Model 45)	B	B	B	B	B
" All Other Models	B	B	B	B	B
Huber	B	B	B	B	B
Hudson	B	B	B	B	B
Indiana	B	B	B	B	B
K. C. Prairie Dog	B	B	B	B	B
La Crosse	B	B	B	B	B
Liberty	B	B	B	B	B
Lighthouse	B	B	B	B	B
Manitowish	B	B	B	B	B
Mogel (6-10)	B	B	B	B	B
" All Other Models	B	B	B	B	B
Moline Universal	B	B	B	B	B
Monarch	B	B	B	B	B
National	B	B	B	B	B
Neverslip (20-12)	B	B	B	B	B
" (10-15, 18-20)	B	B	B	B	B
" All Other Models	B	B	B	B	B
New Age	B	B	B	B	B
Nixon	B	B	B	B	B
Oil Full (14-20, 16-20)	B	B	B	B	B
" (12-20, 16-30)	B	B	B	B	B
" (20-40)	B	B	B	B	B
" All Other Models	B	B	B	B	B
Parrett	B	B	B	B	B
Pioneer	B	B	B	B	B
Royce	B	B	B	B	B
Rumsey (8-16)	B	B	B	B	B
" (12-24)	B	B	B	B	B
" All Other Models	B	B	B	B	B
Russell (Cian)	B	B	B	B	B
Sandusky	B	B	B	B	B
Sears Turn (15-30)	B	B	B	B	B
" (18-15)	B	B	B	B	B
Titan	B	B	B	B	B
To-Ro	B	B	B	B	B
Townsend	B	B	B	B	B
Trundar	B	B	B	B	B
Turner Simplicity	B	B	B	B	B
Twin City (Model 15)	B	B	B	B	B
" (Model 16)	B	B	B	B	B
" (Model 12-20)	B	B	B	B	B
" (Model 20-35)	B	B	B	B	B
" All Other Models	B	B	B	B	B
Wells	B	B	B	B	B
" Cub	B	B	B	B	B
" Junior	B	B	B	B	B
Waukegan	B	B	B	B	B
Wheat	B	B	B	B	B
Whitney	B	B	B	B	B
Wiscago	B	B	B	B	B