

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
PUBLISHED WEEKLY. ESTABLISHED 1843.

The Only Weekly Agricultural, Horticultural, and Live Stock Journal in the State

VOL. CLIII, No. 16
Whole Number 4067

DETROIT, MICH., SATURDAY, OCTOBER 18, 1919

\$1.00 A YEAR
\$3.00 FOR 5 YEARS

The Task of the Rural Church

By W. W. Diehl

THE church is deeply concerned in the spiritual welfare of the people; it also knows if this concern is vital it will find expression in the solution and correction of present economic and industrial evils.

In certain parts of the older country districts and not in a few of the more recently settled places, many churches stand empty and forsaken. Poorly chosen sites? Frequently. Too many denominations in a given field? Very often.

But there is failure in something more fundamental than local mistakes and cross purposes. Rural life is breaking down through conditions for which the church is in part responsible. Empty churches and rural decay have brought the rural church problem suddenly into great prominence. Indeed, many church leaders believe the rural church problem is the most important problem confronting the American people.

We have a rural problem in America. At the peace conference, labor was represented, capital was represented, but the farmer was not. All the world knows there is a labor problem; very few seem to know there is a rural problem. We shall never solve the labor problem until we solve the food problem, we shall never solve the food problem until we solve the rural problem, we shall never solve the rural problem without the aid of the rural church.

In the Detroit Area the leaders have a clearly defined objective. They do not believe in tinkering with the old rural church machinery, nor in speeding up the old church program. They believe a new viewpoint is the first thing to be secured. The whole nation must get a clear vision of the rural problem, its urgency, and the relationship of the church thereto. A definite program looking to this end is now on. The task of the rural church is defined as "Kingdom building." The rural church will have accomplished her mission when Kingdom conditions are established completely in all phases of rural life and practice. When this is done we shall have a civilization in the country as fine in every respect as civilization in the city. All the basic satisfactions and refinements of life will find full and free opportunity for expression in the country. No rural minded person will then move from the farm to town to find better living conditions.

We must have a more practical conception of democracy, and then have the moral courage to live up to the conception. A democracy pledges a free and equal chance to all living in America. If men in a given group have not an equal chance with people

constituting another group, then it becomes the duty of the government to remove the bar preventing the equal chance. That is what our forefathers meant by democracy.

In the face of this fact, we are spending about two and a half times as much money to educate a city child

teachers and preachers to build the Kingdom in the country as it does to build the Kingdom in the city. In the Detroit Area steps are being taken to bring about this needed change.

And we must get all the people to see the economic import of the rural church. In a true democracy, we can

DR. W. W. DIEHL aided in the promotion of America's first Farm Bureau work in De Kalb County, Illinois, where the Farm Bureau idea was established two years before the Smith-Lever bill became law, and where last winter ninety-seven per cent of the farmers became members of the Illinois State Agricultural Association on a \$10.00 membership basis. Dr. Diehl occupied a rural pastorate in the southern part of De Kalb county. The community betterment club work undertaken by him paved the way not only for more efficient church work, but also for better farming, since the members of these clubs were naturally better prepared than the people in the unorganized rural communities to take up and to execute the plans of the county agent. Dr. Diehl is now superintendent of the rural churches of the Detroit Area of the Methodist Episcopal Church. In that capacity he has unusual opportunity to know the Michigan rural field and to see the problems ahead of our country churches.

as we are spending to educate a country child. The little red school house and the inexperienced teacher are good enough for the country; the one-room church structure and the untrained preacher are good enough for the farmer. But city people must have the modern and well equipped school house, the successful teacher, the commanding church structure and the outstanding preacher.

This is not democracy. This does not give the farmer and his family an equal chance with the city man and his family. It requires just as fine material equipment and just as able autos.



Helping the Boy in His Daily Tasks Opens the Way for the Church to Aid in the More Important Work of Character Building.

This exodus from the country to the city has gone on so rapidly that now the number of people living on the farm in proportion to the number living in the city is so small that food production in sufficient quantity to meet the nation's demand is a serious problem. The present high cost of living is very largely due to a partial break-down in rural life.

We shall never settle permanently the high cost of living until we build a new rural civilization. It can not be stated too frequently, nor with too great emphasis, that we cannot have a permanent civilization in America without cultured man and women on the farm; we can not keep cultured men and women on the farm without satisfactory social, recreational, educational, economic and religious conditions for the farmer and his family.

The rural church must take upon herself the task of building such a civilization or fail to accomplish her mission. In attempting this task, the great difficulty encountered is lack of leadership. The country has produced the leadership. The city has absorbed it.

In the Detroit Area needed leadership is being trained in different ways. Important among them is the rural life conference held each year in July, at the Michigan Agricultural College. The work here is divided into three parts. There is a conference lasting one week with lectures by prominent educators, economists, and rural workers. For these lectures the ablest specialists in the land are secured. In addition to this course, there are given courses in homiletics, exegesis, sociology, economics and agricultural science. A fine corps of instructors is secured for this work. At the same time these two courses are given, a third course in domestic science is offered for preachers' wives. The Michigan Agricultural College is outstanding in the fine opportunity offered to rural workers through these conferences. Broad, deep and wide foundations are here laid for the best type of rural life.

Another fine feature of the work done in the Detroit Area is found in the formation of Rural Community Betterment Clubs. These clubs are organized expressly for the purpose of improving community conditions. Persons who join these clubs promise one or more of the following things each year:

1. Something to improve the soil.
2. Something to improve the live stock kept.
3. Something to improve the seed used.
4. Something to improve the farm buildings and the landscape about the house.

(Continued on page 494).



The Michigan Farmer

Published Weekly Established 1843 Copyright 1919

The Lawrence Publishing Co.
Editors and Proprietors

39 to 45 Congress St. West, Detroit, Michigan

TELEPHONE MAIN 4525.

NEW YORK OFFICE—381 Fourth Ave.

CHICAGO OFFICE—111 W. Washington Street.

CLEVELAND OFFICE—101 E. 1015 Oregon Ave., N.E.

PHILADELPHIA OFFICE—261-263 South Third St.

M. J. LAWRENCE President

F. H. NANCE Vice-President

J. F. CUNNINGHAM Treas.

I. R. WATERBURY Secy.

B. W. WERMUTH Associate Editor

FRANK A. WILKEN Associate Editor

ALTA LAWSON LITTELL Associate Editor

LEROY W. SNELL Associate Editor

W. MILTON KELLY Associate Editor

I. R. WATERBURY Business Manager

TERMS OF SUBSCRIPTION:

One Year, 52 issues.....\$1.00

Two Years, 104 issues.....\$1.50

Three Years, 156 issues.....\$2.00

Five Years, 260 issues.....\$3.00

All sent postpaid.

Canadian subscription 50c a year extra for postage.

RATES OF ADVERTISING

50 cents per line agate type measurement, or \$7.00 per

inch (14 agate lines per inch) per insertion. No adv't

inserted for less than \$1.50 each insertion. No ob-

jectionable advertisements inserted at any time

Member Standard Farm Papers Association and

Audit Bureau of Circulation.

Entered as Second Class Matter at the Post Office at

Detroit, Michigan, Under the Act of March 3, 1879

VOLUME CLIII. NUMBER SIXTEEN

DETROIT, OCTOBER 18, 1919

CURRENT COMMENT

Farmers' Business Relations

THE fact that the business of farming has an intimate relationship with all other kinds of business is fundamental, and a general appreciation and understanding of this fact is essential to the wise solution of our reconstruction problems. The farmer's relation to all people in other lines of business is primary since all others depend upon him to produce the food which they must have. But the relationship of the farmer's business to the business in which others are engaged, is just as important, since almost every other business depends very largely upon the farmer for raw material or for a market for finished products. On the other hand, the farmer depends upon the people engaged in other lines of work for his market. It is then apparent that permanent prosperity for any kind or class of business, and the people engaged in it, either as principals or as workers, must be general, rather than sectional or sporadic, and equitable, rather than unequal or unjust.

If this premise is accepted, as an economic principle by the honest element in all business enterprises, the safety and future prosperity of our country and all its legitimate business enterprises is assured. That it is so accepted by business men in many lines is indicated by the indorsement of the aims and purposes of the new Farm Bureau movement, by representative manufacturers, bankers and other prominent business men in our own state, as well as by business men of other states, as noted in a news item appearing in another column of this issue, which latter endorsement resulted from the declarations formulated by representatives of several state farm bureaus which were published in the last issue.

That the same economic principle is recognized by the substantial, thinking farmers of Michigan who are active in the development of the Michigan State Farm Bureau is shown by the constructive program which they have adopted under the three general divisions: educational, marketing and legislative—all aiming at more economic results and a square deal for farmers all along the line. And in addition to securing these results for agriculture, this organization will accomplish a service for the nation through its condemnation of Bolshevism, Sovietism, I. W. W.ism and all similar propaganda, which is a menace to this country as to the rest of the world at this time.

It is, indeed, a wholesome sign for the future that honest business men in other lines are in harmony with business organization among farmers along these constructive lines and this fact should be received as a matter for congratulation rather than suspicion by farmers who have not yet identified themselves with the organization. This fact augurs well for the wise settlement of our critical reconstruction problems, without in the least distracting from the service which this organization will be able to render agriculture.

The Steel Strike Situation

THE strike of steel workers has now been in progress some three weeks. Public knowledge is still very limited with regard to the strike situation. While bulletins from both sides claim constant gain, the public only knows that while some steel is still being made, thousands of men are idle, thus greatly shortening production where it is not entirely stopped at a time when production is most essential to the welfare of the country.

In the meantime attempts by the senate committee to arrive at the merits of the controversy and outline some equitable basis of settlement have not developed visible results, and this steel strike situation bids fair to prove the rock upon which the industrial conference now in session at Washington may break, due to the seeming inability of the three groups to reach an agreement relating to the taking of steps for the settlement of this strike by the conference before proceeding to its general work.

There is little question, however, with regard to the verdict of public opinion regarding this strike, and numerous other strikes which are in progress in various sections of the country at the present time. Public sentiment is strongly opposed to the use of the strike method in settling industrial controversy under present conditions, and strongly favors the formulation of some plan whereby industrial disputes may be adjusted by arbitration and industrial peace maintained. If the industrial conference can develop such a general plan it will have accomplished more than the mere settlement of the steel strike would accomplish for the country, great as that accomplishment would be.

Radicalism and its Reactions

CLASS organization is an outgrowth of industrial progress. In itself and for legitimate purposes it is a good thing. So long as organized class efforts are directed by honest, intelligent leadership they are beneficial to their constituency without doing any injustice to the public at large. But power too often breeds radicalism of a dangerous character, which is not only inimical to the interests of the general public, but reacts to the detriment of the organized class which fosters it. Labor organizations have been largely instrumental in improving conditions for workingmen, but the radical element has injured the just cause of organized labor, until the public has become apprehensive of a tendency in this direction which threatens reactions of a serious nature, of which extreme examples are to be found in European countries. Americanism is not tolerant of these tendencies, and the just cause of the American workingman is certain to suffer from the reaction in direct ratio to the manifestation of radicalism in the ranks of organized labor.

Farmers, as a class, have perhaps felt the effect of present industrial conditions more keenly than any other class of workers. To this fact may be attributed the progress toward a

more efficient business organization of farmers than has ever before been attempted. Fortunately the new type of farmers' organization in our own and other states has been promoted and directed in a most conservative and intelligent manner. So long as such an organization stands for a square deal for the industry and nothing more, it will be a potent force for good to its constituency and an asset to the general public. The hope of the future for this type of organization is that the most substantial class of business farmers are identifying themselves with it. Its only future danger is the development of radicalism and radical leaders which would bring the inevitable reaction.

Radicalism may be properly defined as the result of either selfishness or ignorance. It is not content with a square deal, but seeks to promote class interest without regard to the rights or interests of society at large or its other members. Industrial revolution is its final and extreme manifestation, as exemplified in Russia and seriously threatened in other European countries.

Farmers as a class are not inclined to radicalism, because they are better informed and have more permanent interests at stake than other workers. But apart from this influence of condition and environment we are all pretty much alike, hence the need of introspection upon the assumption of the responsibilities which will go with increased power through more efficient organization, for upon the wise direction of increased power depends the future benefit to the class exercising it in a fairly constant ratio to the effect of its actions on the well-being of society at large.

Securing the Fall Crops

THE very favorable fall for the accomplishment of farm work has in no small measure compensated for the scarcity of labor with which to secure the fall crops. This favorable weather has also added materially to the harvest of these crops. Heavy frosts have been two or three weeks later than usual in most sections of the state, which fact has added very materially to the late potato crop, in addition to ripening the corn and beans and enabling the securing of these crops in good condition. The potato crop is now being secured, schools having been suspended for a period of two weeks in many localities so as to facilitate the securing of this crop by making the school children available to help pick the potatoes.

It is a deplorable condition when such measures must be resorted to in order to secure the crops but it is the only solution in very many communities under present conditions. It now appears that the fall crops will be secured in season on most Michigan farms, with the help of the women and children of the farm household. This is a situation which must be remedied at the earliest possible date in order that production may be maintained at a point to meet the needs of the country.

News of the Week

Wednesday, October 8.

THE government announces that there will be no increase in railroad rates prior to January 1.—Italy ratifies the peace treaty.—The supreme council of the allies vote to feed Austria.—The industrial conference in Washington adopts plans for weeding out visionary cure-all schemes and for expediting its work.—President Wilson's condition is somewhat improved.—Wheat exports show a distinct increase in volume.

Thursday, October 9.

NATIONAL prohibition is adopted by Norway with a very heavy majority.—Tobolsk recently taken by the bolshevik forces, is again in the hands

of Kolchak.—The list of German officers and other persons wanted for trial by the allies is completed.—Field Marshal Foch will draft a new ultimatum to Germany in view of the recent military activities in the Baltic provinces.—Forty-seven military aviators start on a transcontinental trip by air from coast to coast.—The United States and Japan are negotiating to overcome the obstacles in connection with military operations in Siberia.—Three persons are killed in a tornado at Holsingtop, Kansas.

Friday, October 10.

THE program presented to the industrial conference by the public and by labor are alike in all fundamental premises.—Federal troops in Gary are fired upon by strikers.—Senate committee on labor arrives in Pittsburgh.—Great Britain receives her first shipment of goods from Germany since war was declared.—Every magazine published in New York City has suspended publication till labor troubles are settled.—The fliers in the transcontinental flight are progressing under various degrees of success.—Shopmen of the Southern Pacific railroad are out on strike.

Saturday, October 11.

ARMENIA is asking for financial aid from America.—Traffic is suspended on Hudson River ferries when the crews strike.—Germans under leadership of Von der Goltz join with Russians in attack of Lettish troops while entente allies move to blockade Germany.—Canada will acquire the Grand Trunk Railway properties which will be merged with the Canadian National lines, making the largest publicly owned system in the world.—Fully ten million Germans and Austrians are waiting the time when they can emigrate to America and South American countries.—Representatives of the Michigan bean industry go to Washington to attend the hearing before the ways and means committee relative to increasing tariff on bean imports.

Sunday, October 12.

THE allied governments order a sea blockade of German Baltic ports and the German government recalls all craft from these waters.—British vessels land 50,000 Lettish troops at Libau while fighting continues near Riga.—Montenegrin forces inflict heavy losses on invading Serbs.—France signs peace terms with Germany.—Cavalry is called to quell riots at Brest, France.—Efforts are being made to continue negotiations between miners and operators.

Monday, October 13.

THE commander of the Russian troops before Riga suggests to the Letts that negotiations be entered into looking toward joint action against the bolsheviks.—Berlin asserts that German troops in Baltic provinces are returning home, while British authorities are "genuinely alarmed" over the turn of affairs.—President Wilson's recovery will be slow and tedious according to the report of his physicians.—Ex-Emperor Charles of Austria is said to be preparing to join the Magyar army marching against Budapest.—Hearing of bean interests opens in Washington.

Tuesday, October 14.

A NATION-WIDE campaign for the adoption of the league of nations is started in Great Britain.—Allied navy guns are aiding the Letts in the defense of Riga.—Two armies will race for an attack on Petrograd now held by the bolsheviks; one of these armies consists of Russians and Germans and the other is from the northwest government of Russia.—Plans to distribute the surplus supply of sugar held by the army are cancelled.—Berlin gets United States milk for her children who are underfed.—President Wilson's condition is reported as very serious.

MICHIGAN MILK PRODUCERS MEET.

THE third annual meeting of the Michigan Milk Producers' Association will be held at the Michigan Agricultural College October 21, beginning at 10:00 a. m. Besides the regular routine of business, including the election of officers, the following addresses will make up an interesting program: "The Relation of the Government to Organized Dairy Industry," by Hon. Milo D. Campbell, President of the National Milk Producers' Federation. Professor Erf, of Columbus University, who has been in the thick of the fight in that state, will tell of present dairy problems in Ohio. "Collective Bargaining and Legislation Needed in Michigan," is to have the consideration of Hon. D. D. Aitken, President of the National Holstein-Friesian Association.

The Only Grange Fair in Michigan

By J. H. Brown

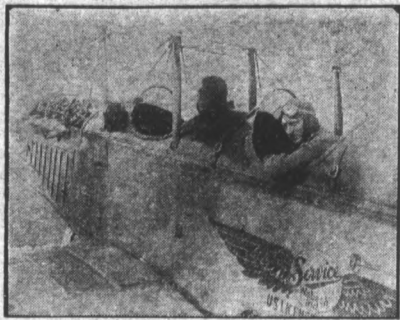
IF there isn't John Bennett across the aisle!" whispered Mrs. Turner to her husband as they were riding on a train the other day.

"That can't be John," replied her husband, as he took a brief look at the individual pointed out. "He is smooth shaven, and John always wore a little mustache and funny-looking burn-sides."

"Well, now, I tell you it's Johnny Bennett, sure's you live."

"I don't believe it," retorted hubby.

"I do," replied Mrs. Turner, as she got out her powder and proceeded to



Many Farmers Enjoyed their First Aeroplane Ride.

do a few chores about her person. "I used to go with John, you know, and did until he left his father's farm near Centerville to go to Detroit to clerk in a big department store."

Just then John Bennett noticed a woman across the way glancing in his direction and quickly recognized her. In less than a minute both Bennett and Turner and their wives were seated together and visiting and talking about old times.

"Where are you going, John?" inquired Harry Turner.

"Oh, we're going back to the farm and old folks for a visit and also to attend the Centerville Grange Fair."

"Same with us," said Mrs. Turner. "Mr. Turner has always lived in Rochester, New York, and is a manufacturer there. Father wrote us to come home for a visit during the fair; and he said it certainly would be worth the trip."

"Well," added John, "dad wrote that the grangers of St. Joseph county had bought the old fair grounds and race track three or four years ago, and got such a good start last year, even while the war was on, that they cleared over a thousand dollars. And dad says they will even have a big airplane this week that will carry passengers. Dad also wrote that he is going to take a ride in the thing up in the sky and see how the old farm looks from on high. I always told him the farm was too big and I hated to work so hard. Now he'll go up and take a look at it and come down and tell me how small it is, see if he don't."

And it was this sort of a story about the St. Joseph County Grange Fair that caused the writer to go directly to Centerville last week. We had also received a ninety-six-page, well-bound and very attractive premium list that read on the front page, underneath the title, as follows: "Our

Slogan, 'Better Live Stock Means Permanent Prosperity for St. Joseph County.'"

That settled it, and so on a certain day we were among hundreds of others wending our way through the main entrance.

The grounds are right in the village and but three blocks from the county court house. There are forty acres in the fair grounds. The soil is sandy loam and the surface level. Several buildings and a good-sized stand are in fairly good condition. A new cattle shed was recently constructed and others will be needed next year.

The thirteen subordinate granges of the county make up the Grange Fair Association, each grange electing one member of the board of directors. E. E. Salisbury, of Parkville, was the first president. He is standing back of the Jersey bull in the group picture. This year E. H. Kirklind, of Mendon, is president; J. H. Langton, vice-president, Centerville; C. T. Bolender, secretary, Centerville, and Claude Felker, treasurer, Parkville.

The first man we got acquainted with was W. T. Langley, a prominent farmer whose farm is southwest of the village. His grandfather, Thomas W., was the first settler at Centerville, arriving with his ox cart in 1832. Mr. Langley was superintendent of the cat-

of each day, and even nights, and he has done fine work for the farmers, their wives, and particularly for the farm boys and girls. We took a picture of the Three Rivers garden and handicraft club exhibits. This exhibit also took prizes at the Michigan State Fair. One division was devoted entirely to boys' and girls' exhibits.

In the main hall a large portion of the east half was devoted to individual exhibits by the Sturgis and Parkville Granges. There was plenty of variety, quality and attractiveness in both exhibits. For the largest and best display one of these granges was to receive a first premium of \$60 in cash. The second premium was \$50, so there was considerable inducement for subordinate granges to make a good display. For the largest and best display of fancy work the first premium was \$20 and the second \$15. The third was \$10.

For the largest and best display of garden products by any boys' and girls' club in the county, the first prize was \$10; second, \$8; third, \$6; fourth, \$4; fifth, \$2.

One of the biggest attractions at the Grange Fair was the gas tractor plowing and brake tests. The plowing was in an adjoining field on Wednesday, and the brake tests were conducted in the field inside the fair race track on



Everybody was there and Looking Fine.

tle department, and insisted that the writer judge the Jerseys, Shorthorns, Guernseys and Herefords on exhibition, and said it would not take us fifteen minutes to do the job. We didn't have our stop watch along, but it must have really taken over seventeen minutes, slow time.

The display of live stock was good and attracted much attention of all fair visitors, and especially the young boys and some of the girls. Next year there will be even more exhibits entered by the young folks, as the fair association is much interested in the boys' and girls' clubs of the county.

St. Joseph county is to be congratulated on having a high-grade county agricultural agent. J. M. Wendt is a hustler, has very good judgment, tact, knows what he's about every minute

Thursday. We will not report the plowing, as we have previously illustrated and described the one held at Coldwater last spring.

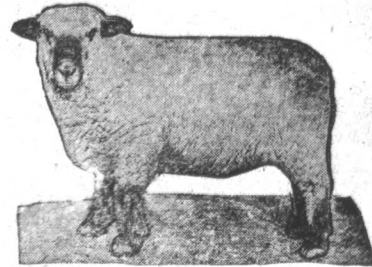
These brake tests were in charge of H. H. Musselman, of the Agricultural College, and J. M. Wendt, of Centerville. The rules governing the tests were a modification of those of the American Society of American Engineers, class "B."

The brake tests were very interesting and more or less exciting to the farmers who closed around the Prony brake as near as allowed. The picture is one we took close up, the only location we could get to show the details.

Oh yes, the Grange at Centerville had all the various departments of big state fairs. The midway was one of the best and cleanest we ever saw on

any fair ground.

And another interesting department included booths arranged by Miss Helen Arms, specialist of M. A. C. extension work. Two rooms were planned to emphasize the difference between a quiet restful room, and a crowded confusing one. They were exactly the same size and the furnishings cost practically the same. The signs displayed at one side of the booths were carefully worded to bring out the reasons why the one shown in the accompanying picture was so much more desirable than the other. The context of the signs gave a fairly good idea of

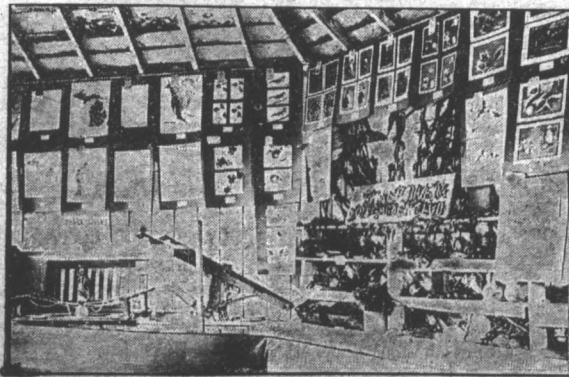


Every Feature Found at the Big Fairs Was There.

the sort of furnishings in each room. These displays and demonstrations of Miss Arms at the Grange Fair interested fair visitors of both sexes and from city and country. It was representative of the work done with women, through the "Rural Home Demonstration Agent."

And last, but not least, the St. Joseph County Grange Fair is the only one in the whole state that is "Grange" from beginning to end, above and below, and clear through. Above the grounds soared a big aeroplane during the two days we were present. It was a bigger feature than any horse race or three-card monte or shell game we ever heard tell of, which is the only way we know anything about anything connected with such things, here or elsewhere.

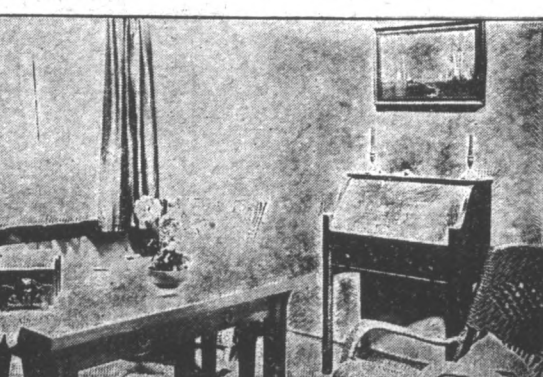
That big aeroplane had taken up just thirty-eight farmers and other kinds of folks when we took the accompanying picture. Not a single accident occurred. The ground was stubble and rather soft and sandy, but the big plane scooted over the ground and "lit out" and up with the biggest and fattest farmer that could crowd his tummy down the hatchway of the front compartment. The picture shows he was not pale, nor demonstrating the shimmy dance while pondering over the possibilities of the next ten minutes after the big propeller began to whirl. He had just signed a paper with the owner of the plane that if he was killed he would never, no never, commence suit for damages. He had also arranged with his better half regarding the digging of the late potatoes next week, providing he didn't return in time. And then up he went while the crowd held its breath to see one of the neighbors shoot up into the thin air on a real sky-larking trip that so many of them had dreamed about when they were kids on the farm a half century ago or more.



The Handicraft Exhibit of Three Rivers' Club.



Testing the Belt Power of Gas Tractors.



A Room Furnished According to Good Taste.

News of the Agricultural World

CATTLE SUPPLY NORMAL.

THE world's supply of cattle, sheep and swine is approximately what it was at the outbreak of the European war, according to a report by the Department of Agriculture. Losses in western Europe have been balanced by gains in other countries.

The two experts sent by the department to investigate the situation in Europe were of the opinion, however, that American meat exports would drop to pre-war figures before European herds had been entirely restored, as many factors tend to limit the money European countries wish to send out for food purchases.

FARM BUREAU DECLARATIONS INDORSED BY BUSINESS MEN.

MICHIGAN State Farm Bureau Headquarters is authority for the statement that manufacturers and business men of the country have written hundreds of letters in the last week to the Michigan State Farm Bureau, indorsing the action of the Michigan, Illinois, Indiana and Missouri Farm Bureaus in condemning the profiteering and avarice on the part of both capital and labor that has created the problems of the high cost of living and industrial unrest that are disturbing the nation.

These manufacturers and business men make plain that they recognize that national disaster threatens if the farmers should turn to any such policy as dominates organized labor today—shorter hours and decreased production.

No expression has come from organized labor.

These manufacturers and business men who have praised the attitude of the farm bureaus on the economic questions of the day agree that more production, industrially and agriculturally, with fairer treatment for the farmers, is the only practical remedy for the serious conditions that prevail in this country.

W. A. Spurgeon, president of the Muncie, Ind., Gear Works, writes: "It should be apparent to any thinking man, regardless of his calling or occupation, that if conditions continue, with continually reducing hours of labor and strikes of workers, that the cost of living in this country will become prohibitive and beyond the reach of all ordinary people."

As an illustration of his point, Spurgeon calls attention to the steel strike, which has sent steel prices sky-high and in instances forced the closing up of allied industries because of lack of materials.

Thomas Duncan, president of the Duncan Electric Manufacturing Company, Lafayette, Ind., writes: "It is a great source of satisfaction to me as a manufacturer to learn of the attitude of the farmers. If anything will or can bring labor to terms it is the tillers of the soil. I hope you will be able to call a halt to these wild demands of labor for eight, six and even four-hour days of labor. If the farmer who has been compelled to work twelve to fifteen hours daily sees fit to tell labor when to stop, it is his privilege and duty. There is no reason in the world why a farmer should have to work fifteen hours a day while many mechanics work but half that time."

These letters are typical of hundreds of others received at the offices of the Michigan State Farm Bureau.

However, the farm bureau federation not only condemned the avarice of organized labor, but attacked the spirit of profiteering that sways many manufacturers and business men as being "inconsistent with true patriot-

ism and Americanism and if persisted in is certain to lead to a national calamity."

Farm bureaus advocate a "square deal" for everybody, capital and labor and agriculture, producer and consumer; establishment of a national commission with sufficient authority to settle industrial controversies of varied natures and to enforce industrial peace. They would have this commission modelled on the lines of the industrial conference called by President Wilson, which has been meeting in Washington, with the exception that it should give equal representation to capital, labor and agriculture, the backbone of the economic structure of the world.

AT ISSUE ON IMPORTATION OF AUSTRALIAN WOOL.

A BITTER controversy has developed between wool growers and woolen manufacturers over the proposed shipment into this country of Australian wool. Both sides are laying their claims before the United States Senate. The following paragraphs are from a letter written by the National Association of Wool Manufacturers in which they take issue with claims made by W. A. Snyder, of Denver, who spoke for the growers:

"The principal points of error to which we call attention are the following:

"The proposed shipment of Australian wool to the United States is not an attempt on the part of England to dump wool here; it is a concession granted at the request of American manufacturers for a supply of a limited quantity of certain types of wool absolutely necessary for the continuation of production of fabrics, which wools are not available in domestic stock and will not be available from the current domestic clip.

"The amount mentioned in the telegram (namely 50,000,000 pounds) is incorrect. The quantity which has been arranged for, to sell in the United States in December, not November as indicated in the telegram, is 50,000 bales, or approximately 15,000,000 pounds.

"This amount will not have the effect of demoralizing prices of wool because the demand for these types of wool is so much greater than the supply available.

"The statement of the amount of wool stock on hand, apparently, is taken from the Department of Agriculture figures for June 30, 1919, without regard to changes in stock since that time, and also without regard to the quality of wool in stock. Of the total amount thus indicated, only about 254,000,000 pounds are three-eighths bloods or better. This is an amount entirely inadequate to supply the requirements of the mills for fine wool.

"In order to keep the cost of cloth within reasonable limits, it is absolutely necessary to avoid any danger of shortage of fine wools."

FORMER CABINET MEMBERS DEFEND FARM LOAN ACT.

THE following statement by George W. Wickersham and W. G. McAdoo, both former cabinet members, is a defense of the constitutionality of the federal farm loan act. This statement was prompted by several attacks made on this act at the recent convention of the Farm Mortgage Bankers' Association at St. Louis. The opinion of the two attorneys in part is:

"While fully conscious of the danger of the courts in a pending litigation, of the courts in a pending litigation, we are of the opinion that congress did not exceed its powers in the enact-

ment of the federal farm loan act and that the provisions authorizing the incorporation of the federal land banks and the joint stock land banks and empowering them to issue bonds which shall be exempt from taxation are not unconstitutional, and we feel confident that it will be so decided in the suit referred to.

High Interest.

"The statute in question was enacted by congress after an investigation into the general subject of rural credits covering a period of more than three years. The investigation revealed the facts that the average rate of interest on farm loan mortgages in the United States ran from 5.3 per cent in New Hampshire to nine per cent and even ten per cent in certain southern and western states, and further that such mortgages were rarely of a sufficiently long term to permit of reasonable amortization by the borrowers. It was further established that in comparison with European countries the United States had been unusually backward in lending governmental aid or encouragement to the facilitation of farm credits.

"In our opinion the creation by congress of the Federal Land Banks and the Joint Stock Land Banks is a valid exercise of a constitutional power for the same reasons as the creation of the national banks is a valid exercise of such power; that they are appropriate instruments to aid in carrying on the fiscal operations of the federal government. Both the national banks and the land banks are vested with public functions; that is, both are authorized to act as depositories and financial agents of the government. In addition, the national banks are empowered to do a general banking business. The only distinction is in the scope of the private functions. The national banks in their private aspect are commercial credit institutions; the land banks are agricultural credit institutions.

Market for United States Bonds.

"In one particular, the land banks have a close relation to the credit of the government itself. One of the stated purposes of the act is to create a market for United States bonds. The banks are authorized to buy and sell these securities and to use them as collateral security for their own bonds in lieu of mortgages."

Touching on the tax exemption provisions, the opinion says:

"We have no doubt as to the validity of this exemption. Congress, having the power to create government depositories and financial agents, can define the privileges which they shall enjoy under federal law, and may exercise from the operation of its own tax legislation their securities and the income arising therefrom."

NEW EXPRESS RULES.

PREPARATIONS are being made to put the new express packing rules into effect on December 10, the date authorized by the United States Railroad Administration, which recently approved the new requirements. This is regarded by express traffic officials as one of the most effective steps taken to safeguard merchandise in transit by express since the unification of the various lines into the American Railway Express Company, which is agent of the government in handling the express business of the entire country.

While they will not affect the heavy movement of perishable farm products by express, as such traffic usually travels in crates and barrels, the new packing requirements will be of much interest and importance to farmers who have other commodities to send to market by express, or goods to re-

turn to city merchants. The rules will not permit the use of paper wrapping for packages over twenty-five pounds, nor of ordinary paper boxes, wrapped or unwrapped, when the weight of the contents is over that limit. For shipments over twenty-five pounds, wooden containers, or fibreboard, pulpboard or corrugated strawboard containers of specified test strengths are required.

This standardization of express rules will place the express service on the same basis as freight, so far as the character of the cartons used is concerned. In fact, the new express rules were modeled on those of the railroads and require the same kind of containers, except that in the express service a wider latitude is permitted in the size of the carton used. The new regulations are embodied in Supplement No. 5, to Express Classification No. 26, copies of which may be secured at any express office.

NO "PRICE FIXING" FOR AMMONIATED RAW FERTILIZER MATERIALS.

REPORTS have reached the United States Department of Agriculture indicating that statements have been circulated to the effect that the Department has "fixed prices" for raw fertilizer materials pursuant to a conference held with the producers of such materials at Washington on October 6-7. The department announced not only that it has not "fixed" the prices as reported, but that, after due consideration it had reached the conclusion that, in the circumstances, it would not be warranted at the present time in naming a fair profit for such raw fertilizer materials as sulphate of ammonia, dried blood, tankage, fish scrap, and cottonseed meal. The department, however, will continue fully to exercise its own powers under the licensing system against profiteering as well as in conjunction with the Department of Justice. The amendment to the control act now pending in congress carries a provision to the effect that anyone who violates the act by profiteering or otherwise shall, upon conviction, be fined not exceeding five thousand dollars or be imprisoned for not more than two years, or both. Any act of profiteering under the law or any other violation of the law, may be prosecuted criminally after the licensing provisions thereof are terminated by a formal proclamation of peace.

GIANT "BEANS" ARE SAID TO BE FRAUD.

THAT the so-called "Giant Beans" which have been grown extensively in Michigan during the last two years, particularly by city gardeners, are not beans at all, being in reality gourds, is the startling information sent out by the Botany Department of the Michigan Agricultural College. "Some of these 'beans' have been produced in Detroit that are more than a yard long and weigh twenty pounds each," declares Dr. E. A. Bessey of M. A. C. "Growers all over the state are vying with each other to see who can produce the largest specimens, and apparently they think that they are turning out record beans."

"There are hundreds of types of gourds, some round and some long. The latter are often called snake gourds. Some enterprising seedsmen with a large supply of gourd seed of this latter type on hand conceived the idea of disposing of it at a handsome profit. Accordingly the papers were flooded last spring, as well as in 1918, with advertisements of 'Giant Butter Bean,' 'New Guinea Butter Bean,' etc.

Impresses Need of Potato Grading

By Joseph Passoneau

WHEN the marketing of your perishable and semi-perishable farm products is compared with the marketing of other classes of commodities one notices a vast difference in the process. For instance, an inquiry addressed to a steel mill as to the price of rails is not likely to result in definite quotations until the kind and size of rails are specified, and a farmer asking his hardware dealer as to the price of rope will at once be asked as to the kind and size of rope desired. Few prospective purchasers would greet a merchant seriously with the question, "What are plows worth today?" If one did it is quite likely that he would receive a reply somewhat along the following lines: "We have a twelve-walking plow at one price and a sixteen-inch gang plow at a vastly different price." The same holds true of most classes of merchandise; size, kind and quality are so closely associated with value that they must be stated when designating the price.

It is at this point that the marketing of certain classes of farm products is different—unfortunately, quality and price are not so closely associated at least at the producer's end of the line. If the individual who inquired about plows were to ask his local grocer about what he was paying for potatoes, it would be unusual if he did not receive the prompt reply, "a dollar" or whatever the case may be. On most lines it is one price as far as the farmer is concerned.

To be sure, these commodities are usually graded before they reach the consumer, and it is this very item—grading—en route from producer to consumer which contributes to the "awful cost" of distributing farm products that most of us complain about.

It can hardly be said that any one class of individuals is to blame; however, the producer is as much at fault as anyone in this respect. It is he who most strenuously objects to grades and standards. Regardless of who is to blame, one thing is certain: As long as the producer sells his potatoes as potatoes, and so on, perishable farm products will never reach the same level of perfection in marketing as have other classes of merchandise. Certainly there is just as much need for grades and standards by which to designate value—price—as there is for grades and standards in steel rails for designating price.

Few will dispute the assertion that there is as much difference in value, relatively, between a five-ounce scabby potato and a twelve-ounce smooth, disease-free one as there is between fifty-pound and one hundred and ten-pound rails.

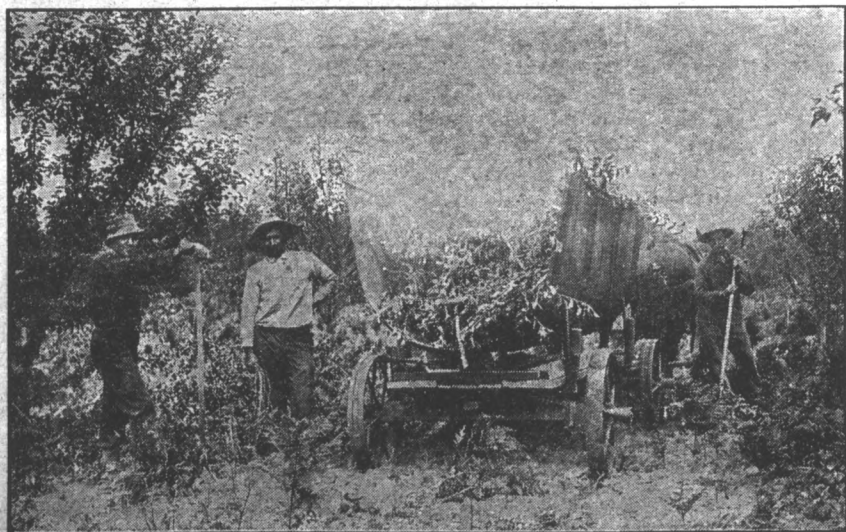
All unstandardized products must

either be sold by inspection or upon the reputation of the seller—never by the merits of the goods before they are seen. Inspection only adds an extra handling charge, and causes a great deal of inconvenience. For instance, a merchant in Omaha, Nebraska, orders a car of coal from Pittsburgh, a car of sugar from San Francisco, a car of shingles from Tacoma and a car of potatoes from Maine. Let us suppose that he receives bills of lading for all of these cars the same day. If occasion demands he will write a check or arrange with his banker to make payment for those shipments upon receipt of the bill of lading which specifies the amount contained in each car. He will remit for all of these shipments—except one. The car upon which payment will be withheld until the car arrives will be the one containing the potatoes, of course. The buyer insists on seeing these before payment is made.

The question is asked: "Why will the Omaha merchant pay for the coal, sugar and shingles without seeing them, yet refuse to do so in the case of the potatoes?" The answer is: The buyer, through the use of recognized grades and standards knows the kind and quantity of the coal, sugar and shingles without seeing them. He does not know the same about the potatoes, and until generally recognized grades and standards are adopted by the potato industry the shipper will have no way of assuring him as to the quality of the stock he is buying. The seller may insist that he has a "fine" potato. But what constitutes such a tuber? Are smooth, disease-free potatoes weighing from four to twelve ounces "fine" potatoes or do potatoes of the same quality weighing from twelve to twenty ounces come under the classification of "fine." A "fine" potato in certain channels of trade is not always a "fine" potato in other channels. Hotels, restaurants and railroads quite often want potatoes weighing from sixteen ounces up, very large bakers, but family trade does not want potatoes this large.

Again, central western markets like a round potato while the northwest market wants a long variety. Some markets will consume red potatoes, while other markets cannot handle them at any price. In the main then, the fineness of the commodity depends largely upon demands of the market.

The shipper may say he has a No. 1 potato, but what constitutes a No. 1 potato? If each of fifty growers and dealers were asked to sort a bushel of No. 1 tubers, there would be many different kinds of No. 1's sorted from the same pile, because of a lack of a common gauge by which to judge a No. 1 potato.



A Home-made Brush Burner Proves a Great Labor-saver to the Orchardist.



Keep your engine warm, boys—your engine. Here's how—High Rock Underwear. The fleece-lining keeps you warm and comfortable—tuned up for a long run. And you save money because it wears so well.

Look for the High Rock label on the front.
At your dealers in two piece or union suits.

HIGH ROCK
FLEECE LINED
UNDERWEAR

High Rock Knitting Co.
Philmont, N. Y.

A HORSE CAN TRAVEL WHERE AN AUTOMOBILE CANNOT GO

Often in the deep snows of winter an automobile cannot get through the drifts, but the horse can travel anywhere if he can secure footing. There is just one thing will insure safe footing on any road anywhere any time, no matter how icy or slippery, and that is the



Whatever the occasion; a hurried trip to the doctor, an important call to town, a load of produce to be delivered—your horse is ready when you are ready. The wise horse owner will go to his horse shoer early and have the safe, reliable RED TIP SHOES put on. Then he can laugh at the weather. No sleet storm, no sudden freeze will hold him back. His sharp, strong RED TIP CALKS can be adjusted in 20 minutes, and he is ready for the road. Avoid substitutes. LOOK FOR THE RED TIP

THE NEVERSLIP WORKS
New Brunswick, N. J.

Anthony Fence

A perfectly balanced staple tie fence. Strong wire, thoroughly galvanized. Every rod of 6-inch stay fence has 33 stay wires. Special book sent free. Dealers Everywhere.

American Steel and Wire Company
Chicago New York Company

FENCE

Direct to Farmer
at Wire Mill Prices

CATALOG FREE

KITSELMAN BROS. DEPT. 278 MUNCIE, INDIANA



Write Quick FREE
BROWN'S BARGAIN FENCE BOOK
DIRECT from FACTORY—FREIGHT PREPAID
The biggest money-saving fence catalog you ever received. Write for it today. See the money you can save—compare my Low Factory, Freight Prepaid prices on fence, gates, barb wire, etc. Don't buy until you get this Bargain Fence Book. 150 styles. Samples to test and book free.

THE BROWN FENCE & WIRE CO., Dept. 349 Cleveland, Ohio

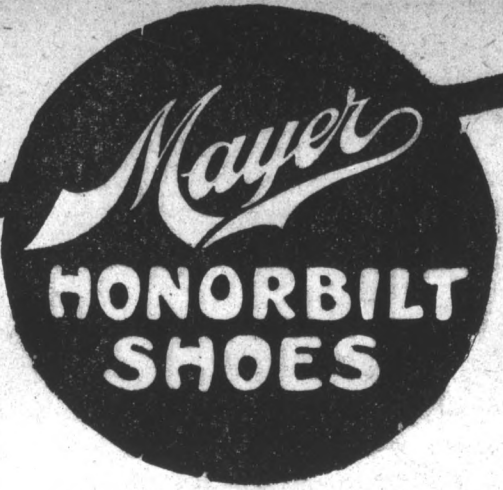
SOY BEANS WANTED

If you expect to have any Soy Beans this year we shall be glad to have you submit samples with the amount and variety. Ask for envelopes.
O. M. SCOTT & SONS CO. Marysville, O.

SEED PEAS BEANS

Send us samples of your clover seed, peas and beans of all kinds and state your price cleaned or uncleaned.
W. L. IRELAND & CO., Grand Ledge, Michigan

Mention The Michigan Farmer When Writing Advertisers



Mayer
HONORBILT
SHOES



For the Whole Family

DRESS up shoes for everybody, work shoes, school shoes for the children and easy restful house shoes. Honorbilt Shoes contain the same good quality leathers they did 38 years ago; they are built on honor. The name Honorbilt stands for a heaping measure of service. Wear a pair and prove it for yourself.

Men's and Women's Fine Shoes

The fine shoes are all that anybody could ask for in style and you get choicest leather plus genuine comfort. You are sure to find the particular shape you want and always the latest styles, and a wide variety.

Work Shoes

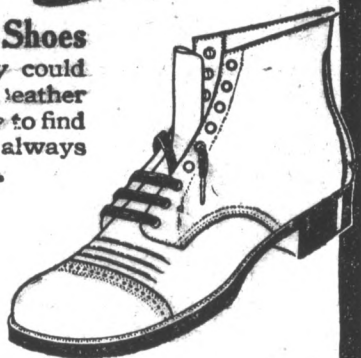
Honorbilt Work Shoe leather is double tanned to resist the alkali in the soil, as well as barnyard juices. They are soft and easy on the feet yet long wearing and will not get hard when wet. Honorbilt Work Shoes will give double the wear of ordinary shoes.

Children's Shoes

Sturdy, well-built shoes that stand rough treatment—the kind boys and girls like, and their parents, too. Shaped for growing feet. The quality is there—they wear like iron.

No matter who in your family needs a pair of shoes next, see your dealer who handles the Mayer Honorbilt line. Look for the name Honorbilt on the soles.

F. Mayer Boot & Shoe Co.
Milwaukee, Wis.



Cheaper Milk

D. D. Aitken Outlines a Plan Whereby Milk Production Costs May Be Reduced

THE Holstein-Friesian Association of America, as you are doubtless already informed, has been taking a census of the animals that are pure-bred Holstein-Friesians and alive August 1, 1919. The association had many objects in view, one of the most important was to know the exact number of Holstein-Friesian animals in existence.

As this work has progressed and more than one-half of the entire animals are already reported, one or two startling conditions have become apparent, and it is about one of these that I want to talk.

Last year the number of pure-bred Holstein-Friesian bull calves that went to slaughter run into the thousands, the great bulk of which should be rendering service in improving the dairy herds all over the United States. The question is, how are you going to bring in contact the person who has these bull calves for sale and the person who needs them in scrub or grade herds throughout the country. I have spent a good deal of time trying to work out a mode of procedure that would bring about this contact. I have realized that if a farmer in Georgia or Alabama who had scrub cows could come in contact with a dairy farmer in New York or Pennsylvania who was selling pure-bred Holstein-Friesian bull calves for veal, that the problem would be solved.

I have realized also that the great bulk of Holstein-Friesian animals are raised by dairy farmers who maintain and keep a herd of pure-bred Holstein-Friesian cattle because they are economical producers of milk and dairy products, and these farmers have no faculty and make no particular effort to advertise or in any other manner call attention to the bull calves that they produce. They keep the heifers largely to replace their own, or to increase their herds, or perhaps for sale, as there is always a ready market for the females, but the bull calves are not advertised and because someone does not come around and offer to buy them the dairy farmer of northern New York state thinks he is forced to sell these bull calves for veal. I take it that many of them ought to be sold for veal, but the great bulk of them are from high-class pure-bred dairy cows. They are from cows that have been improved by breeding for years, many of them from herds that are averaging from eight to twelve thousand pounds of milk in a year under ordinary care, and from well-bred sires.

It is a shame and an outrage on the consuming public that these young bulls are not used for the betterment of the herds. These dairy farmers could sell them if they would advertise them for sale, but it is too much trouble to write the letters, they do not want to be bothered about it.

The result is there is no contact between the man who needs and wants, and ought to have the pure-bred bull calf, and the man who raises him and wants the market. On the other hand, the owner of the scrub herd or the grade herd, whether he lives in Georgia, Alabama, Pennsylvania, Maryland or New York, (and there are counties in the state of New York where there are as many grade and scrub bulls in use as there are pure-bred), makes no apparent effort to improve his dairy machinery. These farmers or dairy-men just simply keep a bull to get the cow in calf, perhaps selling the heifer calves as well as the bull calves for veal, because they are not eligible to registry. The result is, we are not improving the facilities for producing dairy products as fast as we ought to.

What the farmer or dairyman wants,

in my judgment, is a way of coming in contact with the other fellow who has for sale what he wants to buy. The only way we can accomplish this is to get the people interested who are in a position to accomplish something, and that is why I first appealed to the press to see if we cannot interest the owners of scrub animals sufficiently to make them want to better their condition if we can show them a way that they can do it with little effort and with little expense.

I am satisfied one of the best ways is through the county agents. Practically every county now that is worth while has a county agent, and as a whole they are the most industrious, most intelligent, most public-spirited lot of young men that there are in America. Most of them have a lot of tact and good judgment, and I believe they can help us work out this problem. The average farmer very much prefers to talk to the county agent and tell him what he has and what he would like rather than to start out to write to the agricultural department of his own state college and get the names of some county agents somewhere. He prefers to talk to his own county agent and if he does or not I know that the county agent, if he has it in his mind, will make a special effort to get pure-bred sires in his territory. I want the county agents in territory such as northern New York and Wisconsin, where the dairy industry is intensified, where there are hundreds of pure-bred bull calves, as fine as there are anywhere in the land, that can be utilized, to meet the wants and better the conditions of farmers and dairymen in less favored districts. I want the county agent to get busy in these counties.

I would like the county agent of St. Lawrence county, New York, to write to the county agent of Macon, Candler, or Coffee county, Georgia; or Baldwin, Choctaw, Clarke, or Elmore county, Alabama; or Dyer, Fayette, or Henderson county, Tennessee; or Craighead, Green or Jefferson county, Arkansas, or some of the southern counties of his own state, and see if he cannot find a market for the surplus bull calves of St. Lawrence county.

I want some of these county agents who are making every effort that they can think of in the counties where dairying is new, and where the men and women have but little idea of what can be accomplished by real dairy cows, to interest themselves. I want them to get a list of the farmers in their county who would like to improve their herds and find out how many of them there are who want pure-bred registered Holstein-Friesian bull calves. Then I want them to take it up with those county agents in some of the northern territory where great numbers of Holstein-Friesian breeders are located, and see what he can buy a carload for, all of them to be straight, no slopers, any one of them a credit as an individual, and from dams that have good records in the cow-testing association, or elsewhere, for production, that make them valuable dairy cows. That is what we are interested in.

I would like the county agents of the state of Kansas, each one of them, to pick out some county agent in the state of Wisconsin, Michigan, Ohio, or Minnesota where they have great numbers of Holstein-Friesian cattle, and work up some plan whereby each can do service to their constituents by handling these animals. There is no good reason why it is not possible to bring about the desired result. I undertake to say that the county agents of the dairy states could fur-

(Continued on page 486).



PREMO

Film Packs

Developed 25c.

Mail us your exposed Film Pack. We develop twelve exposures, sizes 4 x 5 or 3 1/2 x 5 1/2 and smaller, for 25c. Prints on Velox Paper at reasonable prices if desired. The best grade of work.

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

Salesmen Wanted

Use your spare time profitably by representing the Michigan Farmer in your neighborhood. You can work up a pleasant and profitable business taking care of new and renewal subscriptions for us. You will be interested in our special literature and attractive subscription rates. Address,

The Michigan Farmer, Detroit, Mich.

World's Best Roofing

Freight Paid

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

Edwards "Reo" Metal Shingles

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

Free Roofing Book



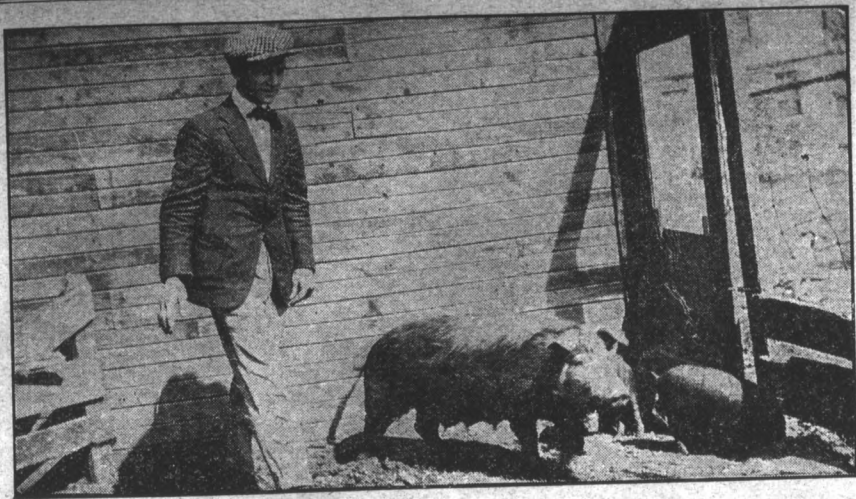
LOW PRICED GARAGES

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

FREE
Samples &
Roofing Book



With a FOLDING SAWING MACHINE. 3 CORDS BY ONE MAN in 10 hours. Send for Free Catalog No. E44 showing low prices and latest improvements. First order secured agency. Folding Sawing Mach. Co., 161 W. Harrison St., Chicago, Ill.



Vern Anthony, of the Albion Pig Club.

Purebreds via the Boys' Club

By C. A. Spaulding

IN the past ten years great strides have been made toward better live stock in the United States. Previous to the outbreak of the war in 1914 the work done. These clubs study the each year saw the importation of some of the best blood of the old families of the Continent and the best from the Isles as well. In spite of extensive importation, in spite of all the work being done by live stock journals, extension departments and other agencies, many communities found it relatively impossible to get into the purebred stock game.

With the coming of the world war and the increase in the price of meats of all kinds, some money, no doubt, was made from almost any kind of stock. The price of pork and beef all time has, however, been more or less dependent on the price of corn and with the increase in the cost of corn and other feeds of the concentrate type, as well as of the roughages, scrub live stock is no longer a profitable investment.

Pure breeds of the various sorts have demonstrated their ability in the past to make superior gains on the same feed and while this fact is generally known it has not been thought possible in some places to get started with pure breeds.

The Boys' Clubs, organized through the efforts of the Extension Department of the various Agricultural Colleges and the Department of Agriculture, have had a considerable influence and are exerting today a considerable influence in the growing of better seed corn, better seed potatoes and seed beans. These same types of clubs organized now for the production of pure-bred live stock are slowly but surely pointing the way to better live stock of all kinds.

Pure-bred live stock clubs are usually made possible through the cooperation of the bankers in financing the projects. The banks will take the boys' notes for the purchase price of the stock and help in getting the work started. The boys themselves are or-

ganized into a club with regular officers elected. They have a local adult leader who acts as a supervisor over the work done. These clubs study the work of stock production in their regular club meetings and from the bulletins furnished them from the Colleges of Agriculture and the Department of Agriculture. They agree, when they sign up, to take good care of the animals and to feed and tend them as nearly as possible according to the instructions that are to be given them.

They carry on the work throughout the year, all the time learning more about the live stock game from club meetings, extension workers, and studies, and when autumn comes they exhibit their animals at the regular county fair or at a special club fair or round-up. At this time the recognition of achievement is awarded to all who have done satisfactory work. Some prizes are also given, these being awarded on the basis of quality shown in the animal exhibited, as well as the quality of the record of the work done and the profit made for the period.

The results of such clubs are far reaching. The communities are thus brought to realize, from the demonstration made, the great possibilities of pure-breeds. In many cases the organization of the boys' club is but the first step toward the permanent improvement of the live stock of the whole community. The boys themselves become more interested in the farming business and become more proficient in handling stock. Then, too, the social effects of such clubs with their recreational features, demonstration meetings, open meetings and club trips, does much to make up for the lack which exists in some communities of good wholesome social amusement.

Perhaps the best way to appreciate what these clubs are doing would be to examine in detail a few representative examples. Last year an impressive lesson in comparative profits of feed-

(Continued on page 492).



Do You Remember Gasless Sundays?

NO better way could be found to illustrate and emphasize the usefulness of the Standard Oil Company (Indiana), and the broad and varied service it renders, than to take five minutes and imagine a gasless year.

Think how our lives instead of being full and complete through association with our fellow men would be circumscribed by the barriers set up by shank's mare.

Think how manufacturing would be hampered. How industry generally would be crippled. How crops would go to waste through inability to harvest, and the leaps and bounds that the cost of living would take.

Instead of the natural expansion of business that comes from service and usefulness the whole structure of business would be hampered through sheer inability to render to society that service which society has been accustomed to demand.

The Standard Oil Company (Indiana) is a public servant owned by 4649 stockholders, no one of whom holds as much as 10 percent of the stock.

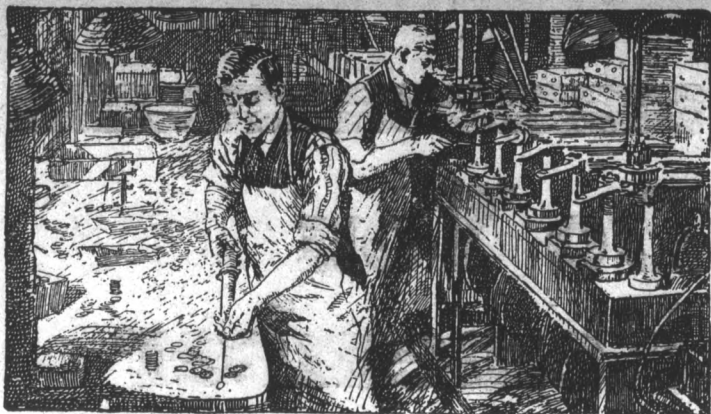
The Standard Oil Company (Indiana) is doing a big job in a big way and has grown great simply by reaping the rewards that come from rendering the service demanded by business and society in a manner satisfactory and beneficial to the world at large.

Standard Oil Company
(Indiana)

910 S. Michigan Avenue, Chicago, Ill.

WALTHAM THE SCIENTIFICALLY BUILT WATCH

AND THE FOREIGN BUILT WATCH



Waltham Colonial A

Extremely thin at no sacrifice of accuracy

Maximum movement, 21 jewels

Riverside movement, 19 jewels

\$150 to \$275
or more

depending upon the case

Know Something About the "Works" in the Watch You Buy

If you open your watch and examine its mechanism, you will find it consists substantially of two supporting plates, between which is mounted a gearing of meshed wheels to take care of the movement, recording time. This is called the train, which we will speak of in our next advertisement.

The lower supporting plate in a Waltham watch is the foundation upon which every unit revolves and is fixed. It is bored with minute holes to take the pivots, screws, pinions, etc.

This lower plate is drilled and threaded by one of the most exclusive and wonderful machines ever designed by the genius of man—an exclusive Waltham invention from the master-mind of Duane H. Church.

Many operations are accomplished with such methodical, automatic regularity that one instinctively imagines that a marvelous human brain guides the extraordinary operations of this machine.

It makes every operation (and there are 141) with infinitesimal exactness to the ten thousandth part of an inch—flawless, beautiful in its complex simplicity—every plate a replica of every other plate, proving Waltham standardization to be one of the miracles of American mechanical genius.

The plate of the foreign-built watch is subject to the variations of hand process. Made to variant sizes and models without precise relation to the parts which they are to contain, which parts are made elsewhere in many homes and small shops, by hand.

No hand work could ever approximate the beautiful and flawless exactitude of this Waltham drilling and threading.

So when you buy a Waltham watch you are assured of a standardization of quality and leadership which has placed the Waltham watch on the pedestal of world dominion.

This story is continued in a beautiful booklet in which you will find a liberal watch education. Sent free upon request. Waltham Watch Company, Waltham, Mass.

WALTHAM

THE WORLD'S WATCH OVER TIME

Save Money on Newspapers

Many rural readers have bought their daily and the Michigan Farmer in combination at a price that saved them money.

The Michigan Farmer—One Year Your Favorite Daily—One Year

On rural routes only at prices specified below in "Our Price" column.

	Regular Price.	Our Price.
Free Press, Detroit.....	\$5.00	\$4.50
Journal, Detroit	5.00	4.50
Times, Detroit	4.00	3.50
Herald, Grand Rapids.....	5.00	4.50
Press, Grand Rapids	5.00	4.50
News, Grand Rapids	5.00	4.50
News-Courier, Saginaw ...	5.00	4.50
News-Statesman, Marshall.	4.00	3.25
Journal, Flint	5.00	4.50
Gazette, Kalamazoo	5.00	4.50
News, Cadillac	4.00	3.50
Enquirer, Battle Creek....	5.00	4.50
Evening News, Monroe....	4.00	3.50
Pioneer, Big Rapids	4.00	3.50
Blade, Toledo	5.00	4.50
News-Bee, Toledo	5.00	4.50

The above combinations give you an average saving of Fifty Cents.

The Michigan Farmer, Detroit

Stay on the Job While it Rains

TOWER'S FISH BRAND REFLEX SLICKER

Is the best wet weather protection ever made.

Look for the REFLEX EDGE

A.J. TOWER CO. Established 1836 Boston Mass.

GET FULL VALUE OUT OF YOUR GRAIN

Grind it and Feed it on your own place, where nothing is lost. Besides roughage, live stock must have Concentrates. Ground Grain is the most effective and economical.

BOWSER FEED MILLS

"Always Reliable"

Crush ear corn (with or without husks) and grind all kinds of small grain. 10 sizes, 2 to 25 H.P.

Sold with or without Elevator. Write today for catalogue.

The B.N.P. BOWSER CO.
South Bend, Ind. U.S.A.

Mention The Michigan Farmer When Writing Advertisers

Our Service Department

DAM THE DITCH.

A ditch was put in from the lake some years ago. Now there is a move to extend it and my tax will be heavy; also some people are planning to put a dam in at the head of the ditch setting the water back on my meadow. Can they dam the water back or extend the ditch, and what remedy have I?

P. J.

If the proper signatures are obtained to the petition and the petition is approved as provided for in the statute that is all there is to it. As to the assessment of taxes for the improvements that is also provided for by the statute; and the determination at the hearing for that purpose is final. The damming back of the water can be restrained by injunction or damages could be obtained for the permanent injury to the property.

JOHN R. ROOD.

LIABILITY FOR DEFECTIVE WORK.

Some time ago I let a job to a plumbing firm to put in a pressure tank and water system in my house. They installed the boiler without any safety valve and it has blown up. Are they liable?

Subscriber.

There is a statute on our books, apparently procured by a plumbers' association for the protection of their trade, requiring that all persons practicing plumbing in the cities shall have a license and making it a misdemeanor, or, liable to fine, to do so without a license. This statute does not extend to any work outside of the cities; and even if it did, would manifestly be of no assistance to a person who had defective work done. However, in the absence of statute, there is a rule of law that does protect the owner. It is a rule of wide application and universal recognition. It is this: Whenever any person holds himself out to the public as qualified to do any particular kind of work requiring skill, and makes a contract in that capacity the law implies as one of the terms of his agreement that he will use ordinary care and skill in that capacity, whether the work be the drafting of a paper by a lawyer, the shoeing of a horse by a blacksmith, or the building of a wall by a mason. It being plainly manifest that a pressure system without a safety valve would not be safe and properly installed, undoubtedly the person who has suffered from such a defective job has a complete remedy by the common law. In such a case the first thing to do is to put your case into the hands of a good lawyer. J. R. R.

PROPER AMOUNT OF SALT FOR BUTTER—SEEDING ALFALFA.

What is the right amount of salt to use for one pound of dairy butter? I have a field of new ground which has produced crops of potatoes and oats, was seeded with timothy and clover, but grasshoppers took it. How can I prepare this land for alfalfa? When is the best time to sow? Would it be best to grow it with a nurse crop? What amount should be sown per acre and which kind of seed is best?

Osceola Co.

G. E. S.

One can never tell definitely the proper amount of salt to use in butter. It all depends upon your customers. Some people like butter that is quite salty and some prefer butter without salt. It is all a matter of taste. Creamery butter is usually salted one ounce to the pound, and they vary this amount. If you are making butter for customers and they complain that the butter is too salty, the only thing to do is to put less salt in, while, on the other hand, if it is not quite salted enough add a little more.

I should plow the oat stubble this

fall and then disk it and harrow it early in the spring, just as soon as the land will do to work. Don't work it up deep, but have a fine seed bed with the soil underneath compact. Taking everything into consideration it probably will be best to seed the field to oats or barley. Barley is a better crop because it does not shade the ground as much as do oats. If you use either crop do not sow over one bushel to the acre. If the weather is exceedingly dry so that the young alfalfa will suffer from moisture the best plan is to cut the oats or barley for hay and give the alfalfa all the moisture. If the season has plenty of moisture you can harvest the crop for grain and the alfalfa will come through all O. K. Ten pounds of alfalfa seed is sufficient for an acre. I would advise you to inoculate the alfalfa seed, in fact, you cannot afford to sow alfalfa without inoculation. The expense is very small and it will pay you.

C. C. L.

DOWER, ETC.

I married a widower whose children are all grown and have homes of their own. On his death what share of his estate do I take?—Subscriber.

If the husband leaves no will the widow would take one-third of the real and one-third of the personal estate owned by him at the time of his death as his legal successor and heir; but if he left a will disposing of the property differently she would have her election to take such as he had left her by his will, or to take one-third of all the land of which he had legal possession of an estate of inheritance or for the life of another at any time during the marriage period and not duly barred by her by signing the deeds or otherwise, and to claim her paraphernalia, consisting of wearing apparel, etc., and quarantine or support in the home for six months, or till dower assigned.

JOHN R. ROOD.

SEEDING ALFALFA WITH CORN.

How do you think the following plan of mine will work for alfalfa: I have ten acres that I wish to put in corn in the spring and sow to alfalfa in August. Will put on two tons of high calcium hydrated lime and 200 pounds of complete fertilizer, say 2-8-2 on the corn ground, and in August will sow to alfalfa. How will I get the alfalfa in the ground? Do you think this is a good way, or can you suggest a better plan?

G. W. S.

Generally speaking, alfalfa requires a well drained, fertile, sweet, and weed free soil. Assuming that the field in question is well drained and the early cultivation of the corn will be sufficient to kill all weed seed in the surface soil, the addition of two tons of hydrated lime and 200 pounds of a high-grade commercial fertilizer when the corn is planted will furnish conditions necessary for a good stand of alfalfa. However, we cannot give an unqualified approval to the plan of mid-summer seeding of alfalfa in corn. Without plenty of moisture to germinate the seed and keep the seedlings growing rapidly, the late seeding will not be satisfactory. Early spring seedings after cultivated crops, with or without a companion crop, have the advantage of an assured supply of moisture for early growth. The seeding in standing corn will be successful only when rainfall is plentiful and the weather favorable for rapid growth. Assuming such conditions, the seed may safely be sown in the corn in July or early August and covered by the use of a spike-tooth cultivator. Of course, the seed should be inoculated with the proper nitrogen bacteria.

H. L. B.



**Every Dot
represents a
Delco-Light
Field Representative**

There Is a Delco-Light Man Near You

No matter where you live, there is a Delco-Light man within easy reach of you.

This means much more to you than mere convenience in the purchase of a Delco-Light plant.

These men are trained men—They **KNOW** electricity as applied to farm use.

They can advise you as to the size of plant you should have.

They can see that your house and barn are properly wired—

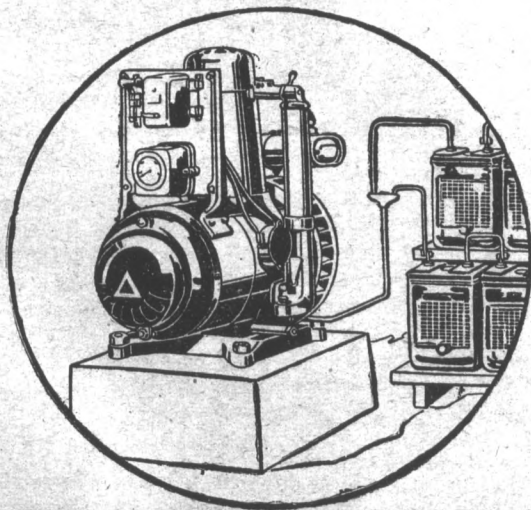
They can superintend the installation of the plant so that it will give you the most efficient and economical service.

They can tell you where and how to place your water system and what kind of a water system to have to meet your particular requirements—

They can give you intelligent advice as to the purchase and use of washing machine, churn, separator, milking machine and other appliances that you can operate with the electricity furnished by Delco-Light.

And—After the plant is installed they are always near-by to advise with you and see that you get full hundred per cent satisfaction out of its operation—

Delco-Light is lightening labor, bettering living conditions and actually paying for itself in time and labor saved in more than 75000 farm homes.



A complete electric light and power plant for farms and country homes, self-cranking—air cooled—ball bearings—no belts—only one place to Oil—Thick Plates—Long Lived Battery—RUNS ON KEROSENE.

DELCO-LIGHT

The Domestic Engineering Company, Dayton, Ohio

Makers of DELCO-LIGHT Products

Distributors:

M. L. Lasley, 23 Elizabeth St., East, Detroit, Mich.
Pringle-Matthews Co., 18 Fulton St., West, Grand Rapids, Mich.



WELL, just what is the true test of quality—and, after all, that's only another word for value—in a suit or overcoat?

Isn't it wearing-satisfaction—that hard-to-define feeling that makes you say, "Well, I hope my next suit gives as good service as this one"?

And how else can we account for the men who come back here, year after year, for Clothcraft Clothes? Isn't that the best endorsement you could have for these moderately-priced clothes, with a written guarantee of satisfactory wear and service?

CLOTHCRAFT CLOTHES

FOR MEN AND YOUNG MEN



The CLOTHCRAFT STORE
In Your Town

Have you seen the new Clothcraft Style Book? A copy will be sent you free if you'll write The Joseph & Feins Co., 640 St. Clair Ave., N. W., Cleveland, O.

SHEEP

HAMPSHIRE

One of the best bred flocks in America. Home of the International Champion ewe of 1918. Rams of all ages for sale. Write me your wants or come and see them. Harley R. Emmons, Elsie, Mich.

Shropshires Am offering 16 yearling rams and 8 yearling ewes of Senator Bibby breed. C. J. THOMPSON, Rockford, Mich.

BUY A SHEEP

Wait a minute, buy Hampshires. The American Hampshire Sheep Association wants to send you a dandy little booklet with list of breeders. Some near you. Write COMFORT A. TYLER, Secretary, 22 Woodland Ave., Detroit, Mich.

Shropshire and Hampshire Rams

In order to finish the ram trade quickly I will give you your choice of a dozen very good yearlings at \$35.00. KOPE-KON FARMS, COLDWATER, MICH. S. L. WING, Prop.

The Ingleside Farm, Ionia,

can still furnish 20 yearling registered Shropshire rams and 18 yearling registered ewes. HERBERT E. POWELL, Ionia, Mich.

300 Breeding Ewes

Choice Michigan Natives: Black faces and delaines 1 to 4 years old. Mostly 2 year olds in good condition in lots of 10 to a carload. Almond B. Chapman, South Rockwood, Mich. Telegraph Address Rockwood.

Idle Wild Stock Farms Shropshire yearling rams from prize winning stock. Make your selection early. Cliff Middleton, proprietor. Clayton, Mich. R. 3.

Shropshire ram lambs of good quality and some ewes all registered. DAN BOOHER, R. 4, Ewart, Mich.

80 Reg. Shropshire Ewes yearling and ram lambs. High bred, well woolled and registered. A. E. Bacon & Son, R. 4, Sheridan, Mich.

Maple Lawn Farm Shropshires. Rams and ram lambs. High bred, well woolled and registered. A. E. Bacon & Son, R. 4, Sheridan, Mich.

40 Registered one and two year old Shropshire ewes mostly two's, also large, vigorous ram lambs ready for service, priced to sell. Flock established 1890. C. Lomen, Dexter, Mich.

Registered Shropshire sheep, 30 rams and 40 ewes. HARRY POTTER & SON, Davison, Mich.

IT PAYS TO BUY PURE BRED SHEEP OF PARSONS

"The Sheepman of the East" I sell and ship every where and pay express charges. I will start one man in each town. Write for club price list. Oxford, Shropshire, Rambouillet and Polled Delaines.

PARSONS, Grand Ledge, Michigan R

Reg. Shropshire Ram Lambs with both size and quality. C. K. Topliff, Eaton Rapids, Mich.

For Sale Reg. Shropshire Rams and Ram lambs of quality. Also 6 ewes 2 to 4 yrs. old. Write R. J. & C. A. WILLIAMS, Middleville, Mich.

For Sale Sheep. Shropshires, Lincolns, Cotswolds. Tunis: rams—ewes all ages. All recorded, papers with each. L. R. KUNEY, Adrian, Mich.

Yearling Shropshire rams for sale. W. E. MORRISH, I. 5, Filat, Mich.

Reg. Shropshires Yearling Rams and ram lambs. Special price on lots of two or more. B. D. KELLY & SON, Ypsilanti, Mich.

For Sale Registered Oxford rams, 2 ram lambs 1, 2 and 3 years old, beautiful. Geo. T. Abbott, Phone Deckerville, 78-3 R. 2, Palms, Mich.

For Sale Registered Oxford Down yearling rams and lambs also a few choice ewes. D. P. Beasore, R. F. D. No. 1 Eaton Rapids, Mich.

Four Reg. Oxford Ram Lambs, extra choice Price \$35 and \$40 each Reg. and Del. Sire an imp. Ram. J. Robert Hicks, St. Johns, Mich.

Oxford Yearling Rams For Sale H. B. PETERS, Carland, Mich.

CHOICE delaine rams, also 2 "B" type stock rams of high quality, large, oily fleeces, shears, write. S. H. Sanders R. No. 2, Ashabula, O.

A nice lot of Registered Lincoln rams also a few good ewes for sale. D. T. KNIGHT, Marlette, Mich.

FOR SALE. A few extra good Rambouillet Rams. J. M. EAGER, R. 6, Howell, Mich.

Leicester Sheep, Reg. yearling rams and ram lambs, sired by imported ram; also Berkshire hogs. Elmhurst Stock Farm, Almont, Mich.

Polled Delaine Rams for sale. Good heavy shears. F. L. BROKAW, Eagle, Mich.

Hampshire and Rambouillet rams for sale yearlings and lambs. A. A. WOOD & SON, Saline, Mich.

Mich. Crop Report

GOOD rains during the latter part of September greatly improved seeding conditions, benefited wheat and rye that had already been sown, revived pastures, and increased the yield of late potatoes and sugar beets, says the joint crop report issued by Coleman C. Vaughan, Secretary of State, and Verne H. Church, Field Agent, United States Bureau of Crop Estimates. Seeding was greatly hindered by the extreme dryness of the soil, and grain that was sown prior to the rains was very much in need of moisture to promote satisfactory germination and growth. Pastures had dried up in many sections of the state and farmers have been compelled to resort to feeding more or less dry feed. Late potatoes have improved somewhat but the rains arrived too late to make a full crop. Notwithstanding the extreme dryness of the season corn is an excellent crop. Beans are showing good yields in the main bean counties of the central and eastern districts.

The average yield of winter wheat is 19.5 bushels as compared with 14.0 bushels last year and a ten-year average of 17.0 bushels per acre. The total production is estimated at 19,246,000 as compared with 10,010,000 last year. The average yield of spring wheat is 12.0 bushels per acre as compared with 18.1 bushels last year. The number of bushels of wheat marketed during September was 2,009,000; 17 mills and elevators reported no wheat purchased during the month. The total amount marketed since August 1 is 3,759,000 bushels.

Corn is a much better crop than any since 1910, notwithstanding the dry summer and the damage it caused in some localities. The condition is 88 per cent, which is equivalent to 57 bushels per acre, or a total production of 65,159,000. As 40 per cent of the acreage is usually utilized for silage purposes, the net grain production is placed at 57,896,000 bushels.

The average yield of oats is 24.4 bushels per acre, giving a total production of 38,040,000 bushels, which is the smallest production since 1907. Last year the yield was 40 bushels per acre, and the production 66,320,000 bushels.

The condition of buckwheat is 75 per cent, representing a total production of 759,000 bushels from the 52,000 acres planted, as compared with 780,000 bushels from 78,000 acres last year.

The potato crop shows some improvement since the recent rains, but only 66 per cent of a crop is expected. This represents a production of 28,571,000 bushels, as compared with 28,560,000 bushels last year. The quality of the crop is generally good and digging has commenced in some sections.

The indicated yield of clover seed is 1.72 bushels per acre, as compared with 1.30 bushels last year. Acreage is small but the yield and quality are good.

The average yield of beans will be around 14 bushels per acre, the yield last year being nine bushels. Early threshing returns show a yield of 15 bushels, but later returns are expected to reduce this average. The crop matured early and a large portion was gathered without rain so that the quality is excellent. Some late fields are weather damaged. The following average yields are reported from other states: New York 15; New Mexico 9; Colorado 4 bushels per acre.

Tomatoes were practically a full crop and the quality was excellent. Cabbages and onions suffered from the drought and insects; the former shows an average yield of 7.5 tons and the latter 790 bushels per acre.

The apple crop is 37 per cent of normal as compared with 62 per cent last year; the greater part of it was in commercial orchards in the western counties, particularly from Oceana county north to Traverse City. A good crop was also reported from portions of the upper peninsula. Grapes were unusually fine in quality and there was practically a full crop. Pears are 62 per cent of a crop, two per cent better than last year.

The total amount of grain and seed threshed, as reported by threshermen up to and including September 20, 1919, is as follows:

Crop.	Bushels.	Av. Yield.
Winter wheat	15,113,393	20.28
Spring wheat	639,025	11.42
Rye	9,963,673	13.49
Oats	22,384,095	24.41
Barley	3,037,398	17.03
Buckwheat	7,619	11.06
Timothy seed	2,025	3.17
Clover seed	15,558	1.89
Beans	139,251	15.06



must be in the pink of condition. Every care must be taken in their feeding to keep them up to perfection.

Stock fed on Molasses will present a smoother, healthier appearance and a sleeker coat. Molasses not only makes the stock look better but it actually improves their condition by aiding materially in digestion.

Progressive stock men have found that molasses feeding puts both females and males in better condition for the ring.

One quart is considered equal to three or four quarts of oats. It is cheaper and gets far better results.

Write us today for full information and suggestions as to Feeding Molasses.

W. H. EDGAR & SON,
520 Lafayette Blvd., Detroit.

Our Free Trial Offer

W. H. Edgar & Son,
Lafayette Blvd., Detroit, Michigan

I have.....head of cattle.....

sheep.....hogs and.....horses
Send me your trial proposition to prove that Buckeye Feeding Molasses will benefit all of them.

Name.....R. F. D.....

P. O.State.....

ROGERS ST. LOUIS

Trapper's Guide—FREE!

Trappers and Shippers—don't wait, write in to-day for Rogers big improved Trappers' Guide—it's free. The biggest, best work of its kind—hang the cover on your wall—it's full of color and action—meant for real outdoor men.

Complete lists of traps and trapper's supplies at lowest prices—Game laws—all the haunts and habits of the fur bearers—every trapper needs it—and it's FREE. Rogers pays highest prices, quickest cash, and shipping charges on furs—deals direct with you, the square deal way—grading done by experts. No commission charged. Write today for Trapper's Guide—get prices and market reports all winter through—Service Free—don't delay—send card today. Address Dept. 1708.

ROGERS FUR CO. ST. LOUIS

Ohsman PAYS BIG MONEY FOR FURS

We quote exact prices and pay what we quote. Furs are high. You get more actual cash by shipping to OHSMAN and better all round satisfaction. We want the best and are willing to pay well to get them.

WE GRADE LIBERALLY—PAY PROMPTLY
Our assortment will please you. An honest valuation and quick payment is our policy. We charge no commission. We pay transportation and send money same day furs reach us. Write for price list and tags free.

WE TAN YOUR HIDES
We buy your horse hides, cow hides, calf skins, etc., and assure you highest market value. From your cow and horse hides we make fur coats, robes, etc., at money saving prices. Be sure to get our free catalog, hide quotations and shipping tags. Buyers of Hides etc. Since 1891.

OHSMAN & SONS CO.
Dept. 106 Cedar Rapids, Iowa

UP-TO-DATE FARMS

Up-to-date farms use clipping machines for horses and dairy cows. Short hair means healthy pores—less sickness—and minimizes liability to vermin. Get your clipping machine NOW for fall clipping. Nothing better than a Stewart No. 1 Ball Bearing. Only \$12.75 at your dealer's or direct.

CHICAGO FLEXIBLE SHAFT COMPANY,
Dept. 127, 12th St. and Central Ave., Chicago



FALL PLOWING IN THE ORCHARD.

EVERY farmer who cultivates his apple orchard has considered the question of doing the plowing in the fall. But very few, however, have practiced breaking the ground before winter, because it seemed that late plowing would expose the trees to winter injury. Mr. T. Blair, who operates in the vigorous climate of Nova Scotia, has the following to say in the Toronto Mail, about fall plowing in the apple orchard:

"After the apples are harvested there is generally a slack time when orchard plowing can be done to advantage. Experience has indicated that shallow plowing is advisable in orchard practice, and that it is unwise to go deeper than five to six inches, and that the area close to the base of the tree should not be plowed deeper than three to four inches. There is as a rule, little cultivation after the first of July, and from that time on even if cover crops are not grown, a natural growth of some sort will have been made. This growth when turned under affords practically as good mulch as if left on the surface, and the fact that the ground has been loosened up tends to prevent as deep freezing as if left compact, for the more compact the soil the deeper will frost penetrate it. Where root killing of trees is liable to occur it may be wise to leave the cover crop mulch undisturbed as it assists materially in holding snow and as a result will give a better cover than if plowed in the fall. Other than this there does not appear to be any disadvantage in fall plowing as to possible winter injury from root killing. The great advantage is that a certain amount of work is out of the way for next spring, and should the spring be unfavorable for working land, the discing may be delayed much longer than it would be wise to delay plowing. Early orchard cultivation is of prime importance, and as it is usually necessary to plow once to work under accumulated vegetation, this should be as far as possible done in the fall, thus facilitating early spring work and hastening bacterial activity the next spring.

BIG ADVANCES IN FURS.

PRICES advanced from ten to fifty per cent at the opening of the September auction of the Metropolitan Fur Exchange, Inc., in New York, over prices realized at the last sale in August, according to official figures. Buyers attributed the marked advances on certain furs to the popularity of practically all American furs, both here and abroad, and to the general shortage of the fur catch. The sales approximated \$200,000.

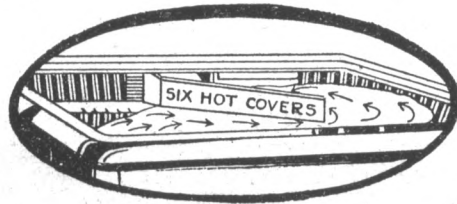
It was estimated that beaver advanced twenty per cent, the highest price being \$42.50 and the lowest \$5.50. Skunk advanced fifteen per cent, the highest price paid being \$9, and some skins realizing as low as seventy-five cents each. Hudson seal advanced fifty per cent, the skins bringing from \$3.32½ to \$3.65. Silver fox was unchanged, the highest price paid being \$320 per skin and the lowest \$55. Stone marten advanced twenty per cent, skins realizing from \$13.20 to \$22. Mink advanced ten per cent, prices ranging from \$2.20 to \$9.60. Mole was unchanged, prices ranging from six cents to thirty-two cents per skin. Squirrel advanced ten per cent, prices ranging from sixty-four cents to \$2.70. Muskrat advanced forty per cent, prices being from fifty cents to \$2.75.



Good Results Sure- with this Guaranteed Baker

YOU can regulate the oven to exactly the temperature you want. The adjustable damper gives you instant control of the heat, the oven thermometer always tells you the temperature. Uniform heat gets to all parts of the oven—you don't have to move your baking every few minutes. Ask your dealer to show you the Joy

ECLIPSE



—the only range with the "hot-all-over" top. This is a patented device which forces the heat to pass under all six lids before going up the chimney. You save time in preparing meals; save fuel by keeping the flames from being sucked out the chimney too soon, and can have a comfortable kitchen in summer.

Economical—gets enough heat out of only two sticks of wood or five pounds of coal to do an average baking or cook a big family meal.

Beautiful—white enameled splashier back, concealed smoke pipe, polished top, with more room for cooking vessels, smooth castings and nickel trimmings—no fancy carvings to catch dust and dirt.

Write for the name of the Eclipse dealer near you. Ask him about the Joy Eclipse range. Guaranteed never to rust out—always looks like new, gives many years of satisfactory service.

Ask for free illustrated book J.

ECLIPSE STOVE COMPANY
MANSFIELD, OHIO

Saws at 4c a Cord

Does the Work of 10 Men.

This one-man cross-cut saw outfit run by gasoline engine cuts 15 to 35 cords of wood a day. One man or a boy can handle it. Easy to operate, easy to move. Engine can be used for other farm work when not sawing.

PHILLIPS ONE MAN DRAG SAW
Fast money-maker and big labor saver. Works anywhere in any weather. Write for description and money-saving offer.

THE PHILLIPS DRAG SAW & MFG. CO.
703 Kemper Bldg., Kansas City, Mo.



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



America's
Pioneer
Dog Remedies

BOOK ON DOG DISEASES And How to Feed

Mailed free to any address by the Author
H. CLAY GLOVER CO., Inc.
118 West 31st Street, New York

Flemish Giant Rabbits, dark steel black. Gays 2 months old. \$3.00 & \$2.00 each. Pedigreed stock. **DAVID RAY**, 709 Norris St., Ypsilanti, Mich.

FOR SALE!

Butcher Folding Bushel Crates, practically brand new. 27c each delivered anywhere in Michigan. Cash with order. Special prices in carlots.

A. M. Todd Company, Menasha, Mich.

BARN PAINT \$1 PER GALLON

Get factory prices on all paints. We guarantee quality. We pay the freight.

Franklin Color Works, Dept. H, Franklin, Ind.

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

Milch Goats For Sale. Saanen and Nubian Buck for service. **J. W. Daser, Stanton, Mich.**

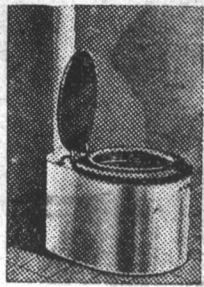
Agricultural Lime High calcium hydrated lime in 50 lb. paper bags, in car lots of 20 tons or more. Delivered, price promptly quoted on request.

Northern Lime & Stone Co., Petoskey, Mich.

POTATO BAGS sold direct to the grower at wholesale prices. **Lincoln Bag Co., Springfield, Ill.**

Please Mention The Michigan Farmer When Writing to Advertisers

THE STANDARD INSIDE CHEMICAL CLOSET



The greatest of all modern conveniences. Rids suburban and farm life of one of the greatest drawbacks. The small town or farm home can now enjoy every advantage of the city dwellers and at no trouble. This convenience is a necessity for health, comfort and safety.

**No Plumbing; No Holes Cut in Floor;
No Water Pipes; No Freeze-Ups;
Sanitary and Oderless.**

THE STANDARD INSIDE CHEMICAL CLOSET is approved by the highest medical authorities. It not only adds to comfort and convenience but to health as well. No home complete without one.

Winter Will Have No Worry

Winter is coming. Will you go another season shoveling snow and freezing like you did last winter, or will you secure the STANDARD INSIDE CHEMICAL CLOSET and enjoy city comfort the year round? You owe it to your family to do away with the old out door closet. You can buy the Standard on a positive money-back guarantee, if not just as represented.



From Manufacturer to User. Full Value for Your Money and a Square Deal Always

THE STANDARD INSIDE CHEMICAL CLOSET is strongly and handsomely made. It is scientifically constructed—no odors—no trouble. Finished in pure snow white enamel and can be readily installed in 30 minutes by any one in any place in the house. A toilet you can show your friends and be proud of. Order today on our positive guarantee. Shipped anywhere. "Send for catalog and special 10 day advertising price today."

Manufactured by
Chemical Closet Mfg. Co.
GRAND RAPIDS, MICH.

District Factory Representatives Wanted

Farms and Farm Lands For Sale

Southern Farm: Fine for dairy, stock and fruit, 900 acres; improved machinery, well stocked and watered, 4 dwellings, 10 tenant houses and 4 barns, fenced with hog wire, 130 acres in peaches, which ripen 10 days ahead of the famous Georgia crop, bringing a fancy price. Crop sold \$35,000 last season. Will grow cotton, corn, oats, cane, peaches, oranges, strawberries, figs and all kinds of hay crops. Entire crop netted owner \$50,000 last season. No better stock farm in South, only 50 miles from the Gulf, located on Main Line of L. & N. Ry. within 300 yard of station; 50 miles from Mobile or Pensacola. Write for detailed description and price.
J. W. BEESON, Meridian, Miss.

I Have One-Half Section of Best Virgin Soil

Lumbered about six years. Can be fitted for plough at \$10 per acre. Timber to build all buildings and fuel for life-time. Have cleared 80 acres in two years. Forty acres almost ready for next year. Expect my potato crop this year to pay over one-half of it. High altitude and free from frost. Two and half miles from market on stone road. Will sell all or divide at \$25 acre cash or \$30 on terms. Should be looked over this fall while potato crop is still in the ground.
Ernest C. Smith, Owner, Kalkaska, Michigan.

207-Acre Michigan Farm, \$9500; Including Fine Span

7-year-old horses, large quantity oats, corn, potatoes, etc., only \$2500 down cash required, balance easy terms. In splendid section, mile and half to hustling R. R. town, 14 miles large city and university, 140 acres heavy crop-producing tillage, woven-wire fenced pasture for 25 cows, bordering river for mile, fine woodlot, timber, fruit, 2 story 7-room house, river view, 2 barns, 1000 bu. corn houses with drive way, etc. Details page 82 big Fall Catalog, just out, farm bargains 23 states; copy free. STROUT FARM AGENCY, 814 B. O. Ford Bldg., Detroit

Michigan Country Home in "The College County" for sale. Immediate possession; on long term contract if desired, fully equipped 200-acre dairy farm with established state and federal inspected herd, registered Holstein-Friesian cattle; two good farm homes within 15 minutes of State Normal College, 30 minutes of University of Michigan, 50 minutes of Detroit, 90 minutes of Toledo, over good roads. With or without cattle and equipment. William B. Hatch, Ypsilanti, Mich.

Farm for Sale 240 Acres in Washtenaw County, Salem Twp., 7 miles North of Ypsilanti, price \$75 per acre, terms reasonable; buildings alone are worth price asked for farm. John Wagner, 161 Helen Avenue, Detroit, Mich.

Rich Michigan Farms. Low prices. Easy terms. STAFFORD BROTHERS, 15 Merrill Building, Saginaw, Michigan

87 acres N. W. Ann Arbor good land, good bldgs. reasonable terms; will mail views. Address Mr. McADAMS, 1250 W. Euclid, Detroit, Mich.

WANTED to hear from owner of farm or unimproved land for sale.
O. K. Hawley, Baldwin, Wisconsin.

FOR Sale or for Mch. Farm. Producing farm in Ozarks, Mineral Springs. Trucking clears four hundred acres. DIXIE FARM, Grannis, Ark.

Wanted—To hear from owner of good farm for sale. State cash price, full description. D. F. Bush, Minneapolis, Minn.

Please mention The Michigan Farmer when writing to advertisers.

FARM FOR RENT IMMEDIATE POSSESSION

Rich land, part of a large estate, new buildings, good markets, paved roads, near town, railroads, high school, grade schools, churches. No fertilizer required. Good soft water. American farmers as your neighbors. Land plowed.

TERMS
Cash rent \$25.00 per acre, or half crop basis. You to furnish implements, live stock and labor. Owner to furnish half cost power, baling, sacks, etc. Under these terms, through a period of five years, (term of lease), your share should average not less than \$50.00 per acre and with good hard work, well directed, can average \$75.00 per acre per year.

LOCATION
This farm of 60 acres and several others like it up to 180 acres, are known to be in one of the most productive farming sections of America. Your future would be what you would make it. These farms are located in the very center of the famous San Joaquin Valley, at Chowchilla, on the main line of the Southern Pacific R. R., on the wonderful paved California State Highway, near Fresno, California.

LAND AND SOIL
The land is a great valley floor and the soil is deep and rich—there is none better anywhere. Work and honest effort will make any man on this land independent.

CROPS AND CLIMATE
The land produces two crops each year. Anything can be grown other than tropical fruit. A perpetual year round mild climate makes these unequalled crops and earnings possible. Grain, alfalfa, truck, berries, fruit—in fact anything and everything—you will get more than twice as much in money from your crops. An acre will feed twice the live stock. Will produce twice the milk and butter. And the markets are just as good.

YOUR LEASE
Good industrious, hard working farmers will be given a five year lease on one of these farms. There is no trick or scheme in this offer. Real men and their families are the only ones wanted—none others will be accepted. 400 of the wisest and best central states farmers and bankers have bought land on all four sides of these farms at from \$200 to \$250 per acre. If you like the country, when you have made friends with those all around you at Chowchilla, when you learn all of this and more is the truth—when you have made a success as a renter or a farm manager, you will be given an opportunity to own a farm of your own—pick it out and you can have an option on it. I want you to succeed and will help you.

INSTRUCTIONS
To qualify—to be able to make good—you must know farming—you must have live stock—implements—you must know a good thing when you see it and be willing to keep your place up to the same high standard of others. You must have some money—you must be looking for a chance to be a successful farmer. Answer quick and tell us all about yourself, what you have been doing, persons in your family, list your live stock, implements, state money on hand and available and when you can go and take possession. Your answer will be treated in confidence. If you are one of the men I am seeking I will call on you at once. This is an opportunity of a lifetime. Answer today.

Address Eastern Trustee
Suite 613
109 N. Dearborn St., Chicago, Ill.

Best 10 Acre Berry Farm in Michigan, for sale by owner. Skinner Irrigation. Fine buildings. Inside of corporation. A snap. Write for photos and terms. Lock Box 98, Ewart, Mich.



WHEAT TRAFFIC SITUATION EXPLAINED.

EXPLAINING the wheat traffic situation, Walker D. Hines, Director General of Railroads, has authorized the following statement:

"My associates and I have been and are giving most earnest consideration to the transportation of wheat, but it is important to have it clearly understood that the present inability to transport the wheat is due to causes which the Railroad Administration cannot control. On May 20 and again on May 29 the Railroad Administration issued notices to the public that in view of an expected large crop of wheat and the necessity of utilizing all available railroad equipment to the fullest possible extent, the wheat crop would have to be handled under the permit system under which wheat would not be accepted for transportation until there were facilities for unloading it at destination.

"The permit system which is administered in connection with the Grain Corporation was put into effect in accordance with public notice on August 1, and since that time permits for the shipment of wheat have been issued only when there were facilities at destination for unloading it. The reason the Railroad Administration has not been supplying more cars for wheat is that the elevators are full at the proposed destinations and consequently the wheat could not be unloaded from the cars.

"It is absolutely necessary to avoid a situation where vast numbers of railroad cars would be filled with grain which could not be disposed of at destination, because this would result in practically taking the cars out of the transportation service and using them for storage and depriving the public generally of cars which are badly needed for business of every sort.

"The Railroad Administration is prepared as an emergency measure to provide ample freight cars to take care of all wheat that can be unloaded out of the cars at destination, giving preference to wheat on the ground. The situation thus becomes one of finding elevator capacity to take care of the wheat at destination.

"My associates and I are using every endeavor to improve the situation through cooperation with the United States Grain Corporation and that corporation is following up the matter in a most active way. It must be appreciated, however, that there are wide limitations upon the extent to which grain can be immediately moved out of the elevators on account of conditions in the foreign market and conditions of ocean shipping and it will be exceedingly difficult to overcome these limitations. Just as fast as elevator capacity can be provided at destinations, the Railroad Administration proposes to give preference to the wheat movement and furnish the cars to move it, but it would make the situation worse and greatly injure transportation generally to tie up cars by loading them with wheat which could not be unloaded at destination."

NORWAY VOTES FOR PROHIBITION.

THE prohibition referendum in Norway is an overwhelming triumph for supporters of prohibition, the figures being: For prohibition 403,904; against 282,472. In Christiania only was there strong opposition, 70,000 voting against and 20,000 for. The measure does not affect wines and beer.



There is a chicness about Vassar Sweaters that makes them most delightful for all outdoor wear.

The Vassar Sweaters come in styles suitable for all members of the family

VICTOR-VASSAR KNITTING MILLS
48-50 Jefferson Avenue Detroit, Michigan

Vassar SWEATERS

BE AN EXPERT

Auto and Tractor Mechanic

Earn \$100 to \$400 a Month

Young man, are you mechanically inclined? Come to the Sweeney School. Learn to be an expert. I teach with tools not books. Do the work yourself, that's the secret of the SWEENEY SYSTEM

of practical training by which 5,000 soldiers were trained for U. S. Government and over 20,000 expert mechanics. Learn in a few weeks; no previous experience necessary.

FREE Write today for illustrated free catalog showing hundreds of pictures men working in new Million Dollar Trade School.

LEARN A TRADE

Sweeney SCHOOL OF AUTO-TRACTOR-AVIATION
67 SWEENEY BLDG. KANSAS CITY, MO.

Get Our Book

FREE! Book on MIXERS Postal Get It



Do Your Own Concrete Work

You can make your own concrete feeding floors, water tanks, troughs, and fence posts with idle hands on muddy days and save a lot of money with a

SHELDON Concrete Mixer

Does work equal to \$300 mixers—yet costs only a fraction. All modern features. Fully guaranteed. Write for catalog now. Sheldon Mfg. Co. Box 470 Nehawka Nebraska

Get a WITTE

Save \$15 to \$200—Write your own order. Get immediate shipment direct from factory. Use cheapest of fuels. Thousands of WITTE customers have been using Kerosene for years—getting power at half the cost. My New Book, "How To Judge A Kerosene Engine" tells about it—FREE by return mail.

WITTE ENGINE WORKS
2197 Oakland Ave., Kansas City, Mo.
2197 Empire Bldg., Pittsburgh, Pa.



KEROSENE ENGINE

Buy At Reduced Prices

Cash or Payments, as you wish. I guarantee every part of engine as long as you use it—no strings—no time limit. Don't buy before you get my offer.

Ed. H. Witte.



FARM BUREAU WORTH WHILE TO THIS FARMER.

MR. CARNS, of Calhoun, says this about the work of the farm bureau: "The Calhoun County Farm Bureau was partly responsible for my going into the pedigreed rye business which has netted me a nice profit during the past two years. For over twenty-five years I have been plugging along just nicely breaking even on my farm, but now I can see a possibility of laying up a comfortable bank roll which my wife and I can enjoy in old age. The county agent has paid a number of visits to our farm and he has put new life into my work. He has encouraged me to use more manure on my land and the results are beginning to show in good stands of red clover. The Federal Farm Loan Association which he helped to organize has enabled me to purchase a new tract of land which will net me a fair profit each year, besides paying interest on my investment. I would not give up my membership in the Calhoun County Farm Bureau for many times what it cost me to join the organization."

"The farmers in my community who understand the farm bureau proposition are enthusiastic supporters of its program of work. The only ones who are knocking the organization are the ones who still have the old idea that the county agent is supposed to look them up and tell them how to farm. These farmers never come out to the grange meetings nor to farmers' club meetings and they don't want to get acquainted with the county agent. I believe that they will take more interest in their work when they realize that the farm bureau is helping to build up their business."

"I was more than pleased to read about the State Farm Bureau program of work in a recent issue of the Michigan Farmer. It is certainly a splendid program and I believe that it is the salvation of the farming business."

MICHIGAN GRANGE TO SELL PRODUCTS OF MEMBERS.

THE executive committee of the Michigan State Grange took an important action a few days ago relative to the cooperative marketing of their members' products, especially potatoes. This matter has been under discussion for some time, but there has been some hesitancy about starting the work until the officers were thoroughly convinced that safe and efficient sales machinery could be secured.

The success of the Michigan Potato Growers' Exchange last year led to a careful examination of its methods. The committee found that the exchange was organized on a sound business basis and officered entirely by successful farmers. This evidence convinced the officers of the State Grange that they were justified in making a contract for their large membership to market their potatoes and other vegetables and fruits through the exchange. Such a contract has been made and it is estimated that this new combination will give a total tonnage of over six thousand cars.

Pretty boxes of paper and envelopes used to be frequent gifts for birthday or Christmas time. Many of these have never been used, but are stored away in the desk or the top shelf somewhere. Get these out now and write letters to every friend you can think of. These are days when hearts are in need of a word of cheer. Let yours be the voice to speak that word. Your stationery cannot be put to better service. And you will get back many a letter that you will prize as long as you live.

CALORIC-Your Guarantee of Perfect Pipeless Heating

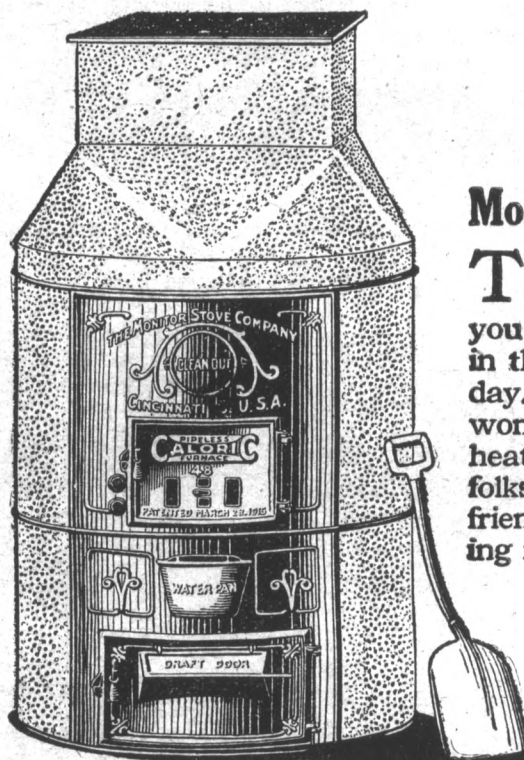
CALORIC means, first of all, a heating system placed in your cellar that will heat your entire home--through *one* register--to the comfortable temperature of 70 degrees, in the very coldest weather.

It means an installation at low cost--in old homes as well as new. It means no tearing up of floors or walls--no unnecessary expense--no bother--no dirt. It means perfect heat for every home--at lowest possible fuel cost.

The CALORIC Iron-Clad Guarantee

WHEN you purchase a CALORIC, you do so knowing positively that it will heat your home--one to eighteen rooms--*perfectly*, regardless of the temperature outside. Because--we guarantee this in writing. We guarantee to heat your building to an average of 70 degrees in the coldest weather or *refund your money*.

And CALORIC heat means *more than warmth*. It means an abundance of balmy air that *circulates constantly* from room to room. This circulating heat is healthful heat. It does away entirely with the close, stuffy, enervating atmosphere that causes so much unnecessary winter sickness.



PIPELESS
CALORIC
FURNACE
The Original Patented Pipeless Furnace

More Than 76,000 CALORICS In Use

THERE are undoubtedly several CALORIC-heated homes in your own neighborhood. If you want the names of neighbors who are included in the list of 76,000 satisfied owners, write us today. Then you can get first-hand proof of the wonderful efficiency of this simple, sturdy, low-cost heating system. You can get the evidence of home-folks as to its remarkable fuel-saving features. Your friends will tell you that CALORIC Pipeless Heating is an absolute, unqualified success.

Get The Facts Today

PLEASE see your local dealer at once. If you don't know him, write us direct. We will be glad to give you complete information regarding this better heating system for your home.

See the CALORIC at State and County Fairs

THE MONITOR STOVE COMPANY

In Business
One Hundred Years

"The Monitor Family"

Pioneers of
Pipeless Heating

CALORIC warehouses in principal Cities CALORIC dealers everywhere
110 Woodrow Street Cincinnati, Ohio BRANCH HOME: 625 E. Michigan Ave., Lansing, Mich.

GET Your Cream NOW! Separator

ONLY
\$2 Down
A Year to
Pay

on This Easy, Self-Earning Plan!

You won't feel the cost at all. The machine itself will save its own cost and more before you pay. We ship any size separator you need direct from our factory and give you a whole year to pay our low price of \$38 and up. Read what Alfred Geatches, North Jackson, O., says: "We are getting more than twice the cream we were before. The separator is very easy to clean and runs very easy." Why not get a fully guaranteed New Butterfly Separator for your farm and let it earn its cost by what it saves?

(10)

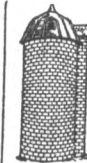
New BUTTERFLY

EASY
TO
CLEAN

Cream Separators have these exclusive, high-grade features: Frictionless pivot ball bearings bathed in oil--self-draining bowl--self-draining milk tank--easy-cleaning one-piece aluminum skimming device--closed drip-proof bottom--light-running cut steel gears, oil bathed. Guaranteed highest skimming efficiency and durability. We give

30 Days' FREE Trial--Lifetime Guarantee

against all defects in material and workmanship. We ship you the size machine you need and let you use it for 30 days. Then if pleased you can make the rest of the small monthly payments out of the extra profits the separator saves and makes for you. If not pleased, just ship the machine back at our expense and we will refund what you paid. You take no risk. Write for FREE Catalog Folder now. ALBAUGH-DOVER CO., 2165 Marshall Boulevard, CHICAGO



DICKEY GLAZED TILE SILOS

"The Fruit Jar of the Field"
Read what Dickey silo owners have to say. Send for Catalog No. 9

W. S. DICKEY CLAY MFG. CO.,
MACOMB, ILL.
Kansas City, Mo. Chattanooga, Tenn.

SEEDS WANTED

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

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

LEARN AUCTIONEERING

at 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, 28 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

CULL BEANS FOR FEED

Car lots or less. Ask for prices.
YOUNG-RANDOLPH SEED CO., OWOSO, MICH.

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

Please mention The Michigan Farmer when writing to advertisers.

CHEAPER MILK.

(Continued from page 478).

nish two thousand creditable registered Holstein-Friesian bull calves, straight on the back, wedge shape, typey, from good dams and good sires, that would be a credit to any scrub or grade herd and buy them at the source of supply at a very low price indeed when they were two weeks old. These could be crated and shipped by express to points where they were wanted, or they could be shipped in carloads and distributed in states at a very much less expense.

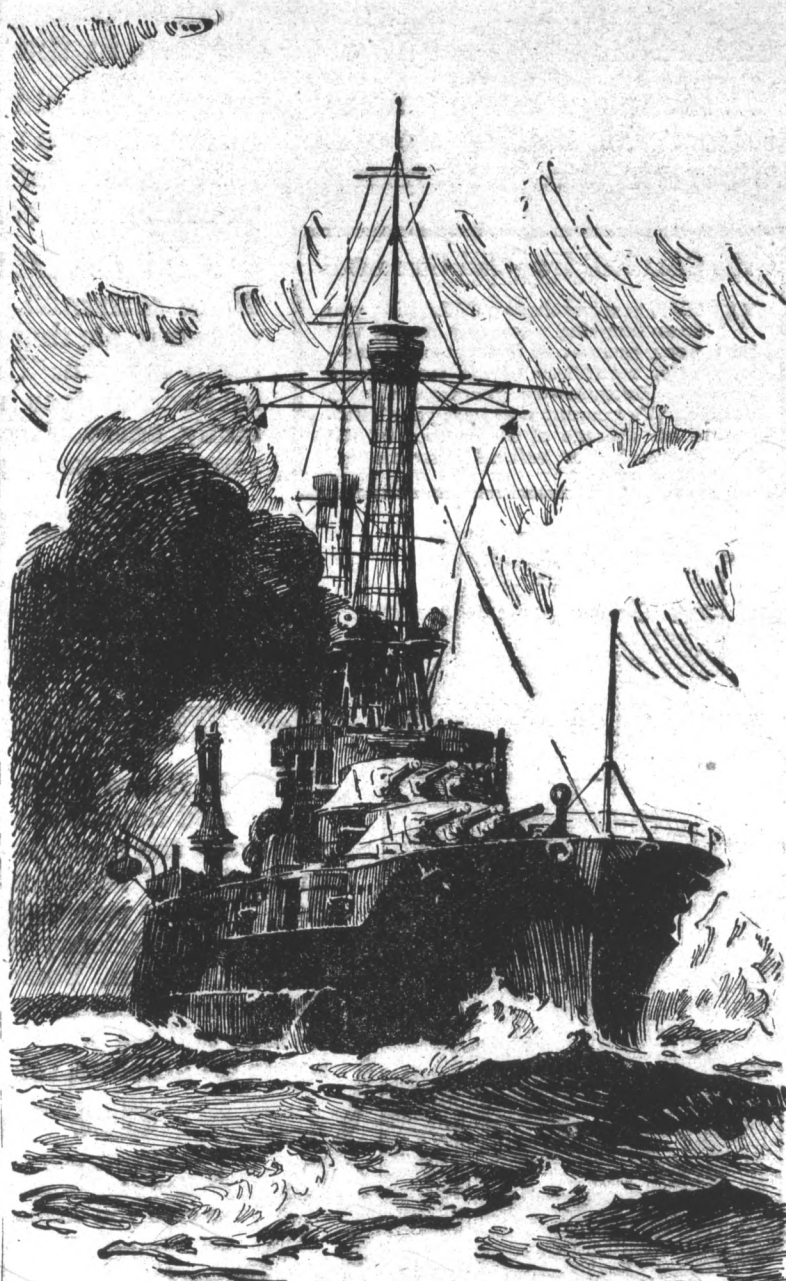
The trouble, as I see it, has been that the only animals that have been advertised are those from high-record dams in certain popular lines of breeding and they have been sold at high prices because they represent some specialty of selective breeding. It is from these prices that the owners of scrub herds have been measuring the probable cost to them, and I want to say to you men who use scrub sires, that you are laboring under a tremendous disadvantage. The average grade of the second generation will give fifty per cent more than the average scrub from which the generation springs, that is, if your scrub herd is averaging four thousand pounds of milk a year or one hundred and seventy-five pounds of butterfat, you can increase the milk fifty per cent and you can increase the butterfat fifty per cent by the second generation by using pure-bred Holstein-Friesian sires. It has been demonstrated in a great number of instances, and it is not alone this difference that enures to your profit; the maintenance of the scrub is practically equal to the maintenance of the grade, and while the scrub might have been making you a loss with the four thousand pounds of milk, the grade would be liable to make you a profit at six thousand pounds of milk, and you cannot afford to go on making dairy products with animals that are not calculated for that purpose any more than you could use scrubs to produce beef at the lowest possible cost of production. You have got to have beef machinery if you produce beef economically and you have got to have dairy machinery if you produce dairy products economically. The scrub has been improved upon. There is a good deal better machinery now than there used to be for manufacturing dairy products and manufacturing beef. You might as well continue to use an old wooden plow in the raising of agricultural products as to think of keeping a scrub herd to produce dairy products.

What I aim to do is to make myself useful if I can; make myself of some service in assisting in improving the dairy herds of the country. I am prejudiced for the black-and-white milking machine; I believe it is the best, the most economical. Others favor other breeds of dairy cattle, but what I aim to impress upon your mind is that you cannot afford to go along with this old machine. Whatever pure-bred dairy animals you like the best that comes nearest to filling your mind's eye, both for appearance and production, then take that breed of animals, but do not continue the scrub.

I believe that practically every county agent in this country could set aside a day when he would determine to take some of his constituents who were interested in improving the breed of his county, and go out and get orders for pure-bred dairy bull calves and in a single day place a carload in his county. I am thoroughly satisfied that the average dairy farmer who is working sixteen hours a day does not have time to think, and if he does he does not have time to carry into operation the result of his thoughts in getting a bull calf. He is too tired to start out to write letters to the county agent up north, or down south, or east, or west, but if you will go to him and

(Continued on page 499).

If you had been on the Arizona



HERE she comes, homeward bound, with "a bone in her teeth," and a record for looking into many strange ports in six short months.

If you had been one of her proud sailors you would have left New York City in January, been at Guantanamo, Cuba, in February, gone ashore at Port of Spain, Trinidad, in March and stopped at Brest, France, in April to bring the President home. In May the Arizona swung at her anchor in the harbor of Smyrna, Turkey. In June she rested under the shadow of Gibraltar and in July she was back in New York harbor.

Her crew boasts that no millionaire tourist ever globe-trotted like this. There was one period of four weeks in which the crew saw the coasts of North America, South America, Europe, Asia and Africa.

An enlistment in the navy

gives you a chance at the education of travel. Your mind is quickened by contact with new people, new places, new ways of doing things.

Pay begins the day you join. On board ship a man is always learning. There is work to be done and he is taught to do it well. Trade schools develop skill, industry, and business ability. Work and play are planned by experts. Thirty days furlough each year with full pay. The food is fine. A full outfit of clothing is provided free. Promotion is unlimited for men of brains. You can enlist for two years and come out broader, stronger, abler. "The Navy made a man of me" is an expression often heard.

Apply at any recruiting station if you are over 17. There you will get full information. If you can't find the recruiting station, ask your Postmaster. He knows.

Shove off! Join the U. S. Navy

WHITE LIGHT



Aladdin

TWO TIMES THE LIGHT
ON HALF THE OIL

Agents Wanted

FROM KEROSENE
Beats
Gas or Electric

Make your home bright and cheerful, saving one-half on oil. Government and leading University tests prove this wonderful new Aladdin nearly five times as efficient as best round wick open-flame lamps. Burns 50 hours on one gallon common kerosene (coal-oil). No odor, smoke or noise, no pumping up, easy to operate, won't explode. WON GOLD MEDAL. GUARANTEED. Prove for yourself, without risk, by

TEN NIGHTS FREE TRIAL

that Aladdin has no equal as a white light. If not satisfied, return at our expense. \$1000 given anyone showing us an oil lamp equal in every way to this NEW MODEL 8 ALADDIN.

GET YOURS FREE! We want one user in each locality to whom customers can be referred. In that way you may get your own without cost. Be the first and write us quick for 10 DAY FREE TRIAL OFFER and learn how to get one FREE.

MANTLE LAMP CO., 418 Aladdin Building, CHICAGO
LARGEST KEROSENE (coal oil) MANTLE LAMP HOUSE IN THE WORLD

Make big money spare or full time. Our easy selling plan makes experience unnecessary. We start you without money. Sample sent for 10 days trial and GIVEN FREE when you become a distributor.

Cheap Power

NOVELTY

Auto-Pulley

Quick Power

DO ALL YOUR POWER FREE

WORK TEN DAYS

Novelty Belt Power Attachment Makes Your Car a 10 to 16 Horse Portable Farm Engine

Grind Your Feed
Run Grain Elevator
Pump Your Water
Run Wood Saw

Simple, practical, economical. Attach in 8 minutes. Nothing to get out of order—cannot injure car or cause tire wear. Easy to operate—will last a lifetime—worth several times its price in emergencies.

SEND NO MONEY

We will send pulley to fit your car. Use it 10 days—put it to every test. After trial if you are entirely satisfied, send us \$2.50; otherwise return of our expense. Hundreds of users—no red tape. Simply send us name of car or send for free circulars. We can supply special pulley to change your present hand machines into power machines.

Novelty Mfg. Co., Dept. M, Abingdon, Md.



Agents Wanted

Please Mention The Michigan Farmer When You Write to Advertisers

WORLD EVENTS IN PICTURES



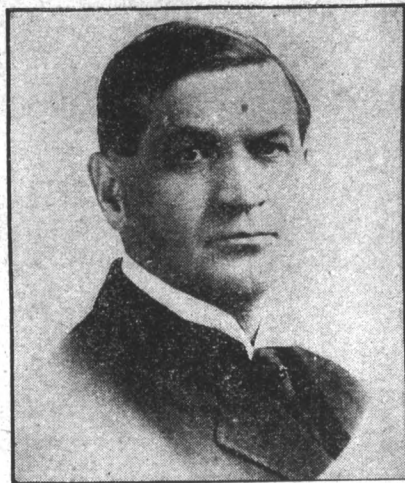
Emile Donaldson, a French orphan, is the Mascot of the U. of P. Football Team.



Julian Baker, brother of Secretary of War Baker, at work on poster to assist in marine recruiting.



Anything on wheels was eagerly seized in Boston to aid in carrying home army food.



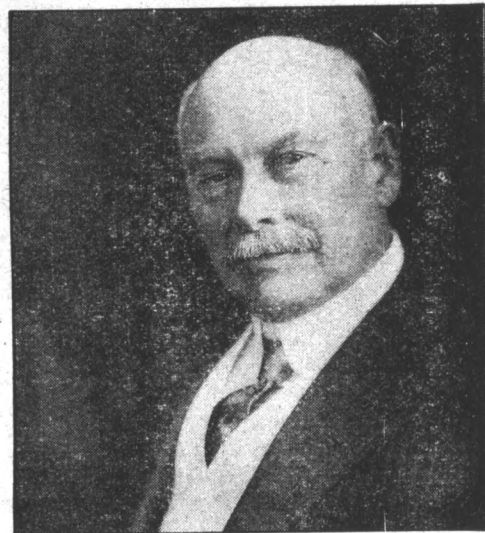
Mayor Smith, of Omaha, Neb., was hung by mob which lynched negro, but will recover.



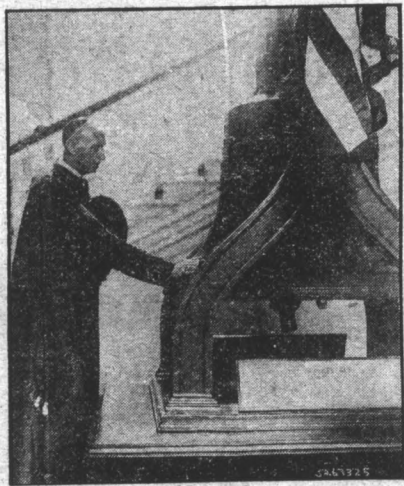
Leaders and counsel of the steel strikers leaving the Senate office building, Washington, D. C.



Remarkable Photograph showing the Tornado-swept Town of Corpus Christi, Texas, which was practically wiped out of existence with large loss of life and property.



Judge E. H. Gary, chairman of the United States Steel Corporation, refuses to arbitrate.



Cardinal Mercier and Liberty Bell at Independence Hall, Phila.



New York State Constabulary are busy maintaining order in the Buffalo steel strike; the mounted officer is driving strikers from the doorway.



Judge Alton B. Parker unveils Lincoln Statue at Manchester, Eng.



A Quartet of Fair Milkmaids in Boston having a little fun after a lesson in milking cows as a part of the agricultural course which many girls there are now taking up.



German Interned Prisoners from Forts Oglethorpe and McPherson, lined up in Hoboken beside their special train before being taken aboard the Transport Pocohontas, on which they sailed for Rotterdam.

\$1000 TRAPPERS CONTEST

Abraham Fur Co.

Greatest
trappers' contest
ever offered—costs nothing
to enter—write today
for particulars.

Abraham "Smoke
Pump" is the greatest
device for "smoking-em-
out" ever invented. One
can of Abraham Improved
"Smoke Powder" goes with
every Smoke Pump. In-
structions how to use our
Smoke Pump and reasons
why ordinary smokers
are not successful sent
with every order. Price \$2.00 postpaid.

Free Fur Facts and Trappers' Supply Catalog

You must have this new book "Fur Facts." Contains good trapping stories by Geo. J. Theissen and others and valuable information. You get our new catalog free also. Best hunters' and trappers' guide published. Not a penny to pay for it. Gives you lowest prices on supplies—Traps, Guns, Knives, Hunting Coats, Heavy Coats, Suits for all weather, Fox Horns, Turkey and Duck Calls—everything you want for trapping.

Weekly Reports —Also Free

We will put your name on our mailing list for Abraham's Weekly Reports. They keep you posted—right up-to-date on prices, etc. Just a post card—that's all you need to get all this—FREE—Fur Facts, the Catalog and the Weekly Reports. And don't forget the Pump. Ask for offer on Postpaid mail—quick.

Abraham Fur Co.
213-215 N. Main St. Dept. 292
St. Louis, U.S.A.
"Ship your furs to Abraham"

BUY FENCE POSTS direct from for-
est. Prices deliv-
ered your station. M. M. care of Michigan Farmer.

Crooked Trails and Straight

By Wm. MacLeod Raine

CHAPTER I.

Following a Crooked Trail.

A CROSS Dry Valley a dust cloud had been moving for hours. It rolled into Saguache at the brisk heels of a bunch of horses just about the time the town was settling itself to supper. At the intersection of Main and La Junta streets the cloud was churned to a greater volume and density. From out of the heart of it cantered a rider, who swung his pony as on a half dollar, and deflected the remuda toward Chunn's corral.

The rider was in the broad-rimmed felt hat, the gray shirt, the plain leather chaps of a vaquero. The alkali dust of Arizona lay thick on every exposed inch of him, but youth bloomed inextinguishably through the grime. As he swept forward with a whoop to turn the lead horses it rang in his voice, announced itself in his carriage, was apparent in the modeling of his slim, hard body. Under other conditions he might have been a college freshman for age, but the competent confidence of manhood sat easily on his broad shoulders. He was already a graduate of that school of experience which always holds open session on the baked desert. Curly Flandrau had more than once looked into the chill eyes of death.

The leaders of the herd dribbled into the corral through the open gate, and the others crowded on their heels. Three more riders followed Curly into the enclosure. Upon them, too, the desert had sifted its white coat. The stained withers of the animals they rode told of long, steady travel. One of them, a red-haired young fellow of about the same age as Curly, swung stiffly from the saddle.

"Me for a square meal first off," he gave out promptly.

"Not till we've finished this busi-

ness, Mac. We'll put a deal right

through if Warren's here," decided a third member of the party. He was a tough-looking customer of nearly fifty. From out of his leathery sun-and-wind beaten face, hard eyes looked without expression. "Bad Bill" Cranston he was called, and the man looked as if he had earned his sobriquet.

"And what if he ain't here?" snarled

sips to chew on. "Looks like you been hitting the road at a right lively gait."

Mac cut in. "Shoulder of my bronc's chafed from the saddle. Got anything that'll heal it?"

"You bet I have," The man hurried into the stable and the redheaded cow-puncher winked across the back of his horse at Bill.

The keeper of the stable and the young man were still busy doctoring the sore when Curly arrived with Warren. The buyer was a roundbodied man with black gimlet eyes that saw much he never told. The bargain he drove was a hard one, but it did not take long to come to terms at about one-third the value of the string he was purchasing. Very likely he had his suspicions, but he did not voice them. No doubt they cut a figure in the price. He let it be understood that he was a supply agent for the rebels in Mexico. Before the bills were warm in the pockets of the sellers, his vaqueros were mounted and were moving the remuda toward the border.

Curly and Mack helped them get started. As they rode back to the corral a young man came out from the stable. Flandrau forgot that there were reasons why he wanted just now to be a stranger in the land with his identity not advertised. He let out a shout.

"Hello, Curly. How are things a-comin'?"

"Fine. When did you blow into Saguache? Ain't you off your run some?"

They had ridden the range together and had frolicked around on a dozen boyish larks. Their ways had suited each other and they had been a good deal more than casual bunkies. To put it mildly the meeting was likely to prove embarrassing.

"Came down to see about getting some cows for the old man from the Fiddleback outfit," Davis explained. "I didn't expect to bump into friends way down here. You riding for the Bar Double M?"

There was a momentary silence. Curly's vigilant eyes met those of his old side partner. What did Slats know? Had he been in the stable while the remuda was still in the corral? Had he seen them with Bad Bill and Blackwell? Were his suspicions already active?

"No, I'm riding for the Map of Texas," Flandrau answered evenly.

"Come on, Curly. Let's go feed our faces," Mac called from the stable.

Flandrau nodded. "You still with the Hashknife?" he asked Davis.

"Still with 'em. I've been raised to assistant foreman."

"Bully for you. That's great. All right, Mac. I'm coming. That's sure great, old hoss. Well, see you later, Slats."

Flandrau followed Mac, dissatisfied with himself for leaving his friend so cavalierly. In the old days they had told each other everything, had talked things out together before many a campfire. He guessed Slats would be hurt, but he had to think of his partners in this enterprise.

After supper they took a room at the hotel and divided the money Warren had paid for the horses. None of them had slept for the last fifty hours and Mac proposed to tumble into bed at once.

Bad Bill shook his head. "I wouldn't, Mac. Let's hit the trail and do our sleeping in the hills. There's too many teer any information, though on the telephone lines into this here town to other hand he did not want to stir suspicion by making a mystery for gos-

"Sho! We made a clean getaway,



This Slender Girl Dumfounded Them.

the fourth. "Are you aiming to sit down and wait for him?"

"We'll cross that bridge when we come to it," Bad Bill answered. "Curly, want to ride up to the hotel and ask if Mr. Dave Warren is there? Bring him right down if he is."

"And say, young fellow, don't shout all over the place what your business is with him," ordered the previous speaker sulkily. Lute Blackwell, a squat heavily muscled man of forty, had the manner of a bully. Unless his shifty eyes lied he was both cruel and vindictive.

Curly's gaze traveled over him leisurely. Not a muscle in his boyish face moved, but in the voice one might have guessed an amused contempt. "All right. I won't, since you mention it, Lute."

The young man cantered up the dusty street toward the hotel. Blackwell trailed toward the windmill pump.

"Thought you'd fixed it with this Warren to be right on the spot so's we could unload on him prompt," he grumbled at Cranston without looking toward the latter.

"I didn't promise he'd be hanging round your neck soon as you hit the town," Cranston retorted coolly. "Keep your shirt on, Lute. No use getting in a sweat."

The owner of the corral sauntered from the stable and glanced over the bunch of horses milling around.

"Been traveling some," he suggested to Bad Bill.

"A few. Seen anything of a man named Warren about town today?"

"He's been here se-ve-re-al times. Said he was looking for a party with stock to sell. Might you be the outfit he's expecting?"

"We might," Bad Bill took the drinking cup from Blackwell and drained it. "I reckon the dust was caked in my throat an inch deep."

"Drive all the way from the Bar Double M?" asked the keeper of the corral, his eyes on the brand stamped on the flank of a pony circling past.

"Yep."

More Economical Than Coffee

Better for Health
and Costs Less

Instant Postum

A table drink made
"quick as a wink" by
placing a spoonful in a
cup, then adding hot
water, and sugar and
cream to taste.



"There's a Reason"
for POSTUM

Made by
Postum Cereal Company
Battle Creek, Mich.

Sold by Grocers and General Stores

No Raise in Price

and we're plumb wore out. Our play isn't to hike out like we were scared stiff of something. What we want to do is to act as if we could look every darned citizen in the face. Mac's sure right," Curly agreed.

"You kids make me tired. As if you knew anything about it. I'm going to dust muy pronto," Blackwell said.

"Sure. Whenever you like. You go and we'll stay. Then everybody'll be satisfied. We got to split up anyhow," Mac said.

Bad Bill looked at Blackwell and nodded. "That's right. We don't all want to pull a blue streak. That would be a dead give away. Let the kids stay if they want to."

"So as they can round on us if they are nabbed," Blackwell sneered.

Cranston called him down roughly. "That'll be enough along that line, Lute. I don't stand for any more cracks like it."

Blackwell, not three months out from the penitentiary, faced the other with an ugly look in his eyes. He was always ready to quarrel, but he did not like to fight unless he had a sure thing. He knew Bad Bill was an ugly customer when he once got started.

"Didn't mean any harm," the ex-convict growled. "But I don't like this sticking around town. I tell you right now, I don't like it."

"Then I wouldn't stay if I were you," Curly suggested promptly. "Mac and I have got a different notion. So we'll tie to Saguache for a day or two."

As soon as the older men had gone the others tumbled into bed and fell asleep at once. Daylight was sifting in through the open window before their eyes opened. Somebody was pounding on the bedroom door, which probably accounted for Flandrau's dream that a sheriff was driving nails in the lid of a coffin containing one Curly.

Mac was already out of bed when his partner's feet hit the floor.

"What's up, Mac?"

The eyes of the redheaded puncher gleamed with excitement. His six-gun was in his hand. By the look of him he was about ready to whang loose through the door.

"Hold your horses, you chump," Curly sang out. "It's the hotel clerk. I left a call with him."

But it was not the hotel clerk after all. Through the door came a quick, jerky voice.

"That you, Curly? For God's sake, let me in."

Before he had got the words out the door was open. Slats came in and shut it behind him. He looked at Mac, the forty-five shaking in the boy's hand and he looked at Flandrau.

"They're after you," he said, breathing fast as if he had been running.

"Who?" fired Curly back at him.

"The Bar Double M Boys. They just reached town."

"Put up that gun, Mac, and move in to your clothes immediate," ordered Curly. Then to Davis: "Go on. Unload the rest. What do they know?"

"They inquired for you and your friend here down at the Legal Tender. The other members of your party they could only guess at."

"Have we got a chance to make a getaway?" Mac asked.

Davis nodded. "Slide out across the kitchen, cut into the alley, and across lots to the corral. We'll lock the door and I'll hold them here as long as I can."

"Good boy, Slats. If there's a necktie party you'll get the first bid," Curly grinned.

Slats looked at him, cold and steady. Plainer than words he was telling his former friend that he would not joke with a horse thief. For the sake of old times he would save him if he could, but he would call any bluffs about the whole thing being a lark.

Curly's eyes fell away. It came to (Continued on following page).



The Sweetest Story Ever Told

"Tell me, do you love me? Whisper softly, sweetly, as of old,—
Tell me that you love me, for that's the sweetest story ever told"

NATIONALLY PRICED

Three models, all playable by hand or by roll, sold at the same prices to everybody everywhere in the U. S. freight and war tax paid. Price branded in the back of each instrument at the factory:

White House Model	\$675
Country Seat Model	585
Suburban Model	495



YOU need think of nothing but the song and the joy of singing it—if you have a Gulbransen Player-Piano.

The Gulbransen is so Easy to Play. It seems to understand. It responds to your wishes. It helps you tell your story—sympathetically and without effort.

The words to be sung each moment are always before your eyes as the roll unwinds—printed on the roll. You cannot "lose the place." No notes to read; no fingering to practice. The Gulbransen does all that for you—and makes no mistakes.

The pedals act so gently that a tiny baby once played the Gulbransen (as shown in the picture at the left) and gave us the idea for our trade mark.

You have never tried a player that is

so responsive to the lightest pedal touch. Or one from which you can get such delicacy of expression.

If you would love to sing without the drudgery of playing, go in and try a Gulbransen at our dealer's store.

You'll know him because he shows the Baby at the Pedals in his window and newspaper advertising. Or, write us for his address and our catalog.

These love songs and thousands more are ready for you in player-rolls. Our dealer has them:

A Little Love, a Little Kiss
Somewhere a Voice is Calling
The Sunshine of Your Smile
When You Look in the Heart
of a Rose
I'm Sorry I Made You Cry
Love's Old Sweet Song
The Sweetest Story Ever Told

Dearie
Sweet Adeline
A Perfect Day
Sweetheart
The Rosary
Till We Meet Again
I Love You Truly

GULBRANSEN-DICKINSON CO.
825 North Sawyer Avenue, Chicago

GULBRANSEN

(Pronounced Gul-BRAN-sen)

Player-Piano

SOBEL

Spend a cent before You Ship 1

Before you ship your furs elsewhere, send us a postal card for our price list. It will pay you. Costs only a cent to find out. You will be astonished at the prices we pay. Send quick. We need shipments now and will pay you well for your pelts.

RAW FURS

Those desiring to ship at once can do so in confidence. We guarantee highest prices and liberal assortments. Our 33 years experience is your protection.

Prices are soaring high right now. This means we can pay you more than ever before. Ship immediately or send for price list. Act quick!

N. Sobel, Inc.
22 West 27th St.
Dept 16—New York

PRICE LIST
FREE
WRITE
TODAY

Get a **GUARANTEED CHECK** for your FURS

Ship Direct to the Judd Fur Co. and get a Guaranteed Check in full by Return Mail. A printed and signed guarantee that protects you and thousands of other trappers in U. S. and Canada. No commission charges or grading fees deducted from your check by us. Judd Standard System of High Grading also assures you that you get

MORE MONEY
from us for your furs than from any other house. Besides you have the satisfaction of dealing with a reliable and responsible house. More than \$1,000,000 Capital behind every Judd Guaranteed Check.

INVESTIGATE: Write for Price List, exclusive information on the fur market and Proof that we pay more money for furs.

JUDD FUR CO.
The Best Fur House in Great Central Market
1121 N. West 35th St., Chicago, Ill.

If you could buy barn paint for 50 cents per gallon, it would still cost nearly twice as much to paint your barn with it, as it would cost to paint the same barn with WEATHERWAX Liquid Paint. Write for free color card and prices. Sold by good dealers everywhere, or direct, freight paid, where we have no dealer. Address, **THE REILLY COMPANY, Indianapolis, Indiana.**

TRAPPERS

Let me give you these **Stretching Board Patterns FREE**

Get ready for a big money-making trapping season. Old timers will tell you that they never dreamed of prices like you will get this year. Let me send you FREE my set of Stretching Board Patterns—just what you need to make your furs worth every possible dollar. Properly stretched furs always worth 10% to 50% more. Be ready with plenty of good stretching boards—and ship to

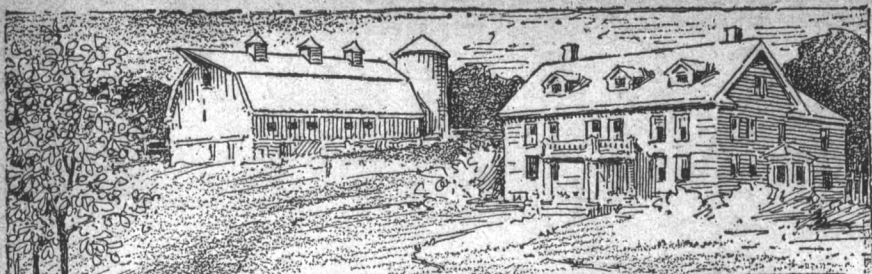
RUMBAUGH

DES MOINES, IOWA

I pay top prices—I mail returns in a few hours after I get your shipment—I grade furs—I do not charge commissions, but give you 100 cents for every dollar's worth—and GUARANTEE TO HOLD YOUR FURS SEP. ARATE on request and return them if you are not satisfied. Mail me the names and addresses today of two trapper friends and get my Stretching Board patterns and game laws for your state by return mail—also RUMBAUGH'S up-to-the-minute market reports, which will keep you posted all season on what your furs will bring. Write today.

W. R. RUMBAUGH
393 S. W. Fifth St.
Des Moines, Iowa

When writing to advertisers please mention the Michigan Farmer.



Lift the Mortgage with Dynamite

Many an unprofitable farm, loaded with debt, can be made into a paying property by the use of dynamite.

No land is lazy—but it *cannot* work for you properly if it is covered with rocks and stumps, strangled with a hard, impervious subsoil or soggy with undrained swamps.

All your land will work for you twenty-four hours a day if you give it a chance by clearing it and keeping it in healthy condition with the help of

HERCULES DYNAMITE

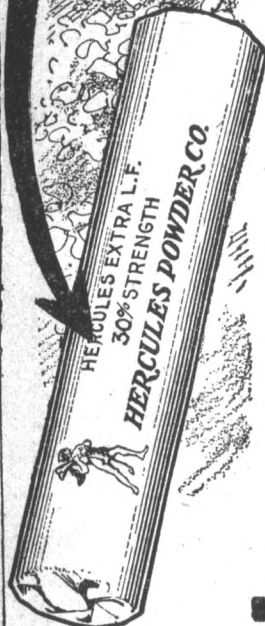
Dynamite is one of the most valuable helpers that the farmer can employ. You should know more about the ways in which you can use it to lighten your work and increase your profits.

Sign the coupon printed below and send it to the Hercules Powder Co. They will send you, free, a copy of their 68 page illustrated book "Progressive Cultivation."

This book will tell you all about the many uses of dynamite on the farm and in the orchard. You should have this book—and you can't get it too soon.

Sign the coupon and send it today.

HERCULES POWDER CO.
87 W. 10th Street
Wilmington Delaware



Hercules Powder Co. 87 W. 10th Street, Wilmington, Del.

Gentlemen:—Please send me a Copy of "Progressive Cultivation." I am interested in dynamite for _____

Name _____

Address _____

Some Special Clubbing Offers

No. 1.

Michigan Farmer\$1.00
Cloverland Magazine 1.00
Power Farming 1.00

Regular price, one year.....\$3.00

OUR PRICE ONLY \$2.10

No. 2.

Michigan Farmer\$1.00
Hoard's Dairyman 1.00
Woman's Magazine 1.00

Regular price, one year.....\$3.00

OUR PRICE ONLY \$2.50

No. 3.

Michigan Farmer\$1.00
Swine Breeders' Journal..... .50
Today's Housewife 1.00

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

OUR PRICE ONLY \$1.85

No. 4.

Michigan Farmer\$1.00
People's Home Journal 1.00
American Boy 2.00

Regular price, one year.....\$4.00

OUR PRICE ONLY \$3.15

"Let Me Save You A Fat Roll of Bills"



Says, "The Old Stove Master" "Yea, sirl I'll save you big money on a pipe or pipeless furnace, direct to you from my big factories. Write and get my offer on a Kalamazoo"

Pipeless Furnace

Free Book Tells the story—how you always save money with "A Kalamazoo Direct-to-You." Cash or Easy Payments. Unconditional guarantee. We pay freight. Also save on Kalamazoo Stoves, Ranges, Gas and Oil Heaters, Kitchen Cabinets and Tables, Refrigerators, Phonographs, Fireless Cookers, Sewing Machines, Washing Machines, Cream Separators, Indoor Closets, Pumps and Boilers. We pay freight. Write today.

Ask for Catalog No. 909 "The Old Stove Master"

KALAMAZOO STOVE COMPANY

Manufacturers - Kalamazoo, Mich.

"A Kalamazoo Direct to You"



High Power Mantles



for Gasoline Lamps and Lanterns
Made to give service. Will last longer and stand rougher usage than any other mantle known. Made in our own factory by special patented process. Buy from your dealer or order direct from nearest office. Price per doz. \$1.50.
THE COLEMAN LAMP CO.
Mfrs. of The Famous "Quick Lite" Lamp and Lanterns
Wichita St. Paul Dallas
Toledo Los Angeles Chicago

Crooked Trails and Straight

(Continued from preceding page).

him for the first time that he was no longer an honest man. Up till this escapade he had been only wild, but now he had crossed the line that separates decent folks from outlaws. He had been excited with liquor when he joined in this fool enterprise, but that made no difference now. He was a rustler, a horse thief. If he lived a hundred years he could never get away from the disgrace of it.

Not another word was said while they hurried into their clothes. But as Curly passed out of the door he called back huskily. "Won't forget what you done for us, Slat."

Again their eyes met. Davis did not speak, but the chill look on his face told Flandrau that he had lost a friend.

The two young men ran down the back stairs, passed through the kitchen where a Chinese cook was getting breakfast, and out into the bright sunlight. Before they cut across to the corral their eyes searched for enemies. Nobody was in sight except the negro janitor of a saloon busy putting empty bottles into a barrel.

"Won't do to be in any hurry. The play is we're gentlemen of leisure, just out for an amble to get the morning air," Curly cautioned.

While they fed, watered, and saddled they swapped gossip with the wrangler. It would not do to leave the boy with a story of two riders in such a hurry to hit the trail that they could not wait to feed their bronchos. So they stuck it out while the animals ate, though they were about as contented as a two-pound rainbow-trout on a hook. One of them was at the door all the time to make sure the way was still clear. At that they shaved it fine, for as they rode away two men were coming down the street.

"Kite Bonfils," Curly called to his partner.

No explanation was needed. Bonfils was the foreman of the Bar Double M. He let out a shout as he caught sight of them and began to run forward. Simultaneously his gun seemed to jump from its holster.

Mac's quirt sang and his pony leaped to a canter in two strides. A bullet zipped between them. Another struck the dust at their heels. Faintly there came to the fugitives the sound of the foreman's curses. They had escaped for the time.

Presently they passed the last barb wire fence and open country lay before them. It did not greatly matter which direction they followed, so long as they headed into the desert.

"What we're looking for is a country filled with absentees," Curly explained with a grin.

Neither of them had ever been in serious trouble before and both regretted the folly that had turned their drunken spree into a crime. Once or twice they came to the edge of a quarrel, for Mack was ready to lay the blame on his companion. Moreover, he had reasons why the thing he had done loomed up as a heinous offense.

His reasons came out before the camp fire on Dry Sandy that evening. They were stretched in front of it trying to make a smoke serve instead of supper. Mac broke a gloomy silence to grunt out jerkily a situation he could no longer keep to himself.

"Here's where I get my walking papers I reckon. No rustlers need apply."

Curly shot a slant glance at him. "Meaning—the girl?"

The redheaded puncher nodded. "She will throw me down sure. And why shouldn't she? I tell you I've ruined my life. You're only a kid. What you know about it?"

He took from his coat pocket a photograph and showed it to his friend. The sweet clean face of a wholesome

girl smiled at Curly.

"She's certainly a right nice young lady. I'll bet she stands by you all right. Where's she live at?"

"Waits in a restaurant at Tombstone. We was going to be married soon as we saved five hundred dollars." Mac swallowed hard. "And I had to figure out this short cut to the money whilst I was drunk. As if she would look at money made that way. Why, we'd-a-been ready by Christmas if I'd only waited."

Curly tried to cheer him up, but did not make much of a job of it. The indisputable facts were that Mac was an outlaw and a horse thief. Very likely a price was already on his head.

The redheaded boy rolled another cigarette despondently. "Sho! I've cooked my goose. She'll not look at me—even if they don't send me to the pen." In a moment he added huskily, staring into the deepening darkness: And she's the best ever. Her name's Myra Anderson."

Abruptly Mac got up and disappeared in the night, muttering something about looking after the horses. His partner understood well enough what was the matter. The redheaded puncher was in a stress of emotion, and like the boy he was he did not want Curly to know it.

Flandrau pretended to be asleep when Mac returned half an hour later.

They slept under a live oak with the soundness of healthy youth. For the time they forgot their troubles. Neither of them knew that as the hours slipped away red tragedy was galloping closer to them.

CHAPTER II.

Camping with Old Man Trouble.

THE sun was shining in his face when Curly awakened. He sat up and rubbed his eyes. Mac was nowhere in sight. Probably he had gone to get the horses.

A sound broke the stillness of the desert. It might have been the explosion of a giant firecracker, but Flandrau knew it was nothing so harmless. He leaped to his feet, and at the same instant Mac came running over the brow of the hill. A smoking revolver was in his hand.

From behind the hill a gun cracked then a second—and a third. Mac stumbled over his feet and pitched forward full length on the ground. His friend ran toward him, forgetting the revolver that lay in its holster under the live oak. Every moment he expected to see Mac jump up, but the figure stretched beside the cholla never moved. Flandrau felt the muscles round his heart tighten. He had seen sudden death before, but never had it come so near home.

A bullet sent up a spurt of dust in front of him, another just on the left. Riders were making a half circle round the knoll and closing in on him. In his right mind Curly would have been very properly frightened. Now he thought only of Mac lying there so still in the sand. Right into the fire zone he ran, knelt beside his partner, and lifted the red-thatched head. A little hole showed back of the left ear and another at the right temple. A bullet had plowed through the boy's skull.

Softly Flandrau put the head back in the sand and rose to his feet. The revolver of the dead puncher was in his hand. The attackers had stopped shooting, but when they saw him rise a rifle puffed once more. The riders were closing in on him now. The nearest called to him to surrender. Almost at the same time a red hot pain shot through the left arm of the trapped rustler. Someone had nipped him from the rear.

Curly saw red. Surrender nothing. He would go down fighting. As fast as he could blaze he emptied Mac's

gun. When the smoke cleared the man who had ordered him to give up was slipping from his horse. Curly was surprised, but he knew he must have hit him by chance.

"We got him. His gun's empty," someone shouted.

Cautiously they closed in, keeping him covered all the time. Of a sudden the plain tilted up to meet the sky. Flandrau felt himself swaying on his feet. Everything went black. The boy had fainted.

When he came to himself strange faces were all around him, and there were no bodies to go with them. They seemed to float about in an odd casual sort of way. Then things cleared.

"He's coming to all right," one said. "Good. I'd hate to have him cheat the rope," another cried with an oath.

"That's right. How is Cullison?" This was said to another who had just come up.

"Hard hit. Looks about all in. Got him in the side."

The rage had died out of Curly. In a flash he saw all that had come of their drunken spree; the rustling of the Bar Double M stock, the discovery, the death of his friend and maybe of Cullison, the certain punishment that would follow. He was a horse thief caught almost in the act. Perhaps he was a murderer too. And the whole thing had been entirely unpremeditated.

Flandrau made a movement to rise and they jerked him to his feet.

"You've played hell," one of the men told the boy.

He was a sawed-off little fellow known as Dutch. Flandrau had seen him in the Map of Texas country a year or two before. The rest were strangers to the boy. All of them looked at him out of hard hostile eyes. He was scarcely a human being to them; rather a wolf to be stamped out of existence as soon as it was convenient. A chill ran down Curly's spine. He felt as if someone were walking on his grave.

At a shift in the group Flandrau's eyes fell on his friend lying in the sand with his face turned whitely to the sky he would never see again. It came over him strangely enough how Mac used to break into a little chuckling laugh when he was amused. He had quit laughing now for good and all. A lump came into the boy's throat and he had to work it down before he spoke.

"There's a picture in his pocket, and some letters I reckon. Send them to Miss Myran Anderson, Tombstone, in care of one of the restaurants. I don't know which one."

"Send nothin'," sneered Dutch, and coupled it with a remark no decent man makes of a woman on a guess.

Because of Mac lying there with the little hole in his temple Curly boiled over. With a jerk his right arm was free. It shot out like a pile-driver, all his weight behind the blow. Dutch went down as if a charging bull had flung him.

Almost simultaneously Curly hit the sand hard. Before he could stir three men were straddled over his anatomy. One of them ground his head into the dust.

"You would, eh? We'll see about that. Jake, bring yore rope."

They tied the hands of the boy, hauled him to his feet, and set him astride a horse. In the distance a windmill of the Circle C ranch was shining in the morning sun. Toward the group of buildings clustered round this two of his captors started with Flandrau. A third was already galloping toward the ranch house to telephone for a doctor.

(Continued next week).

BRAENDER TIRES and TUBES

Make Satisfactory Service Doubly Sure



Registered
Trademark

Equip your car with Braender Tubes as well as Tires and you will have a combination that is 100 percent satisfaction sure.

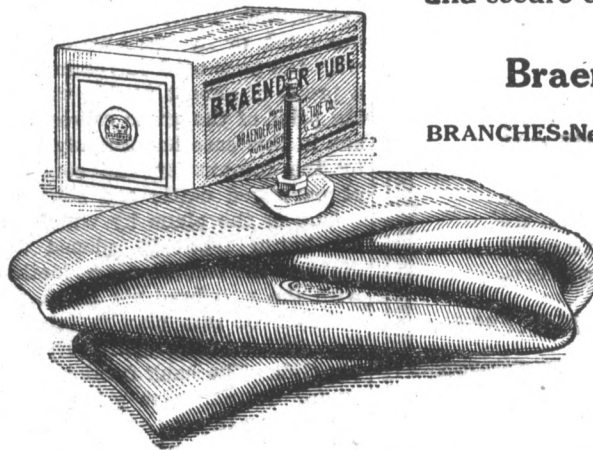
The important track records established by Braender Tires during the racing season of 1919 at Indianapolis, Sheepshead Bay Speedway, Uniontown, Tacoma, and Elgin prove them to be without a peer for SPEED, ENDURANCE and ECONOMY.

The sensational victories are not only a wonderful endorsement of Braender Tires but likewise of Braender Tubes.

The terrific grind, the smashing strains of racing speed, not only called for a tire of thoroughbred quality but demanded that the tube which it enclosed be of equally high grade.

Braender Tubes—gray and red—are built up of multiple layers of purest rubber and vulcanized into a perfect air retaining unit. This method gives the greatest possible strength and a uniform thickness.

Buy Braender Bull Dog Non-Skid Tires if you want the best at a fair price, but see to it that they enclose Braender Tubes, if you would be without trouble on the road and secure extra mileage.



MANUFACTURED BY
Braender Rubber & Tire Company
Factory, RUTHERFORD, N. J.
BRANCHES: New York, 32 Broadway; Philadelphia, 1350 W. Girard Ave.;
Chicago, 64-72 East 14th Street.

Ask your dealer for them.
If he cannot supply you, write the nearest factory branch, or

MICHIGAN HARDWARE CO.
Grand Rapids, Mich.

who are the wholesale distributors and they will tell you where you may procure them. Dealers send for proposition.

Ring Necked Pheasants

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

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

Genuine Wild Mallard Ducks

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

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

Bloomfield Giant Bronze Turkeys

We have some of the young for sale, from our wonderful 35 pound tom "BLOOMFIELD KING." Why not buy one of our fine extra toms and improve your flock?

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

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

Bloomfield Farms
America's Largest Game Farm
1714 Penobscot Bldg.

Detroit, Michigan

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

SPECIAL SALE on pure bred water fowls. All the best laying varieties. Order your breeding stock now and save money. Catalog FREE. W. A. WEBER, Box 202, Mankato, Minn.

POULTRY

HOMESTEAD FARMS

This work is organized and incorporated and headquarters have been moved to Kalamazoo. We invite the interest and the cooperation of the farmer people of Michigan.

All our stock is guaranteed; any bird not satisfactory may be returned.

Spring Pullets—About 100 each of Barred Rocks, S. C. Black Minorcas, S. S. White and S. C. Brown Leghorns, 20 White Wyandottes.

Yearling Pullets—200 S. C. White Leghorns; a limited number of our other breeds as given in our Fall Poultry circular.

Cockerels—Barred Rocks, White Rocks, Buff Rocks, Rhode Island Reds, White Wyandottes, White Orpingtons, S. C. Black Minorcas, S. C. and R. C. White and Brown Leghorns, Anconas.

Guineas, Ducks, Geese—White Pekin, Gray Toulouse.

Turkeys—Bronze, White Holland, Bourbon Reds.

Rabbits—Belgians, New Zealand, Rufus Reds, Giants.

Please send for circular on Fall Sale of Poultry with price list.

STATE FARMS ASSOCIATION,
Kalamazoo, Michigan

Barron's 303 egg stock, S. C. W. Leghorn cks., March hatched. Bourbon Red Turkeys, Toms and Hens. Write for prices. Mrs. E. L. Garlock, R. 7, Howell, Mich.

LOOK BABY CHICKS \$13 A 100 UP

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

Barred Rocks egg contest winners, eggs from strain with records to 290 a year. \$2.00 per setting prepaid by P. P. Circular free. FRED ASTLING, Constantine, Mich.

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

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

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

Single Comb White Leghorn Cockerels, Ferris 230, 264 egg strain April and May hatch, Alvah Stegenga, Portland, Mich.

Buff Leghorns, and White Leghorns, 100 early hatched Cockerels from great laying strains \$1.50 to \$3.00. Dr. WILLIAM SMITH, Petersburg, Mich.

Fowler's Buff Rocks Cockerels \$4 up. Utility eggs for hatching \$2.00 for 15. R. B. FOWLER, Hartford, Mich.

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

March Hatched R. I. Red Cockerels

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

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

Rose Comb White Wyandotte cockerels. \$3 each. Order early. A. VOGT, R. 3, Hillman, Mich.

S. C. W. Leghorn cockerels. Price \$1.50 to \$3.50, egg record, size's dam 283, dam's dam 280 to 264 eggs. Loren B. Frank, Rochester, Mich.

A few Regal strain White Wyandotte cockerels for sale \$2.00 to \$5.00 dollars apiece; eggs for hatching in season. H. E. Brown, R. 1, Laingsburg, Mich.

Giant Bronze Turkeys, Young thoroughbreds, grand color, type and bone. Early maturing birds now at fall prices. Order soon. N. Evelyn Ramsdell, Ionia, Mich.

White Pekin Ducks and White Chinese Geese. Mrs. CLAUDIA BETTS, Hillsdale, Mich.

Some Special Clubbing Offers

No. 1.

Michigan Farmer\$1.00
Cloverland Magazine 1.00
Power Farming 1.00

Regular price, one year.....\$3.00

OUR PRICE ONLY \$2.10

No. 2.

Michigan Farmer\$1.00
Hoard's Dairyman 1.00
Woman's Magazine 1.00

Regular price, one year.....\$3.00

OUR PRICE ONLY \$2.50



Daylight for Night Chores

WHEN winter draws near—when the sun rises late and night comes soon—when darkness makes the chores seem a nuisance—the man with a Colt Lighting and Cooking Plant is the man to be envied.

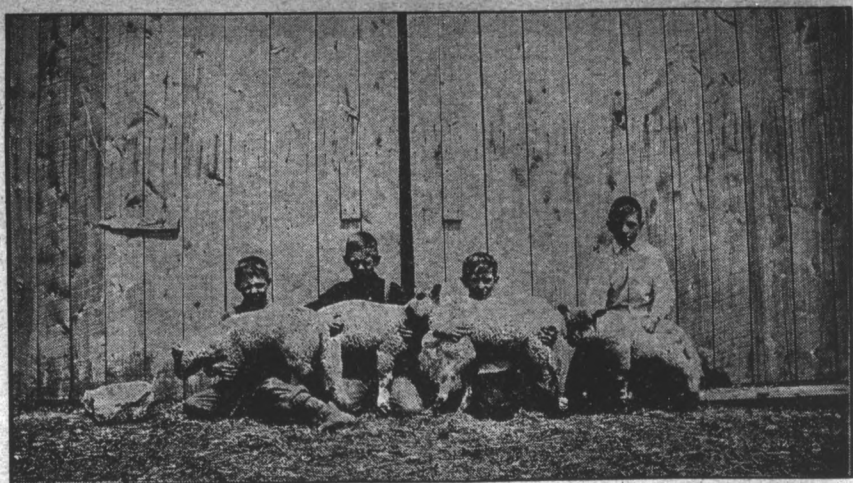
It lights the house as well as the barns with a soft, brilliant white light—the most brilliant light known to science—and it cooks the dinner, and the morning coffee and flapjacks. No other system gives this double service. The

Carbide Lighting **COLT** and Cooking Plant

is the most economical in first cost and the most economical in up-keep. It never gets out of order. Farmers have used them for 15 years without repairs. You owe yourself and your family conveniences city people enjoy. Let us send you the names of neighbors who have used a Colt plant for years and prefer it to all others.

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

17



Purebreds via the Boys' Club

(Continued from page 479).

ing grade and pure-bred calves was that without exception they are all brought out in the work done by the boys of the state of Illinois. Two banks decided to promote the work of the calf clubs but one of them sought to use only the more moderate priced grades while the other used pure-bred calves. The calves were drawn by lot and were cared for much the same throughout the summer. When the dispersal sale was held in the fall the grade calves were sold about a week before the pure-breds. The grade calves averaged \$65 per head and the sale was thought to be quite a success. The registered calves had cost the boys on the average \$117. The average selling price, however, was \$235 per head, or in other words, the boys with the pure-bred calves had received a profit of almost double the full selling price of the grade calves. The lesson in this case has already been seen by the community and several herds of pure-bred cattle are being started.

One of the plans by which stock of the better type is placed with the clubs is the endless chain method used with the pure-bred pig clubs. A good example of this plan is furnished by the Albion, (Michigan), Duroc-Jersey pig club. The bank furnished the money for the purchase price of the pigs and Duroc-Jerseys were selected by the boys. A contract was drawn up by which each boy was to return to the bank one sow pig from each of the first two litters. After returning the second pig his contract was fulfilled and the original sow and all other increase were to belong to him. The bank was to take the young pigs returned and give them out on the same basis to other boys, reserving only enough to dispose of to cover the cost of keeping up boar stock for the club.

This Albion Duroc-Jersey club is starting on its third year and it has been a success. The seven boys first organized are now all in high school except one, and he is a freshman in Albion College. These boys, when they came in from the country to the city high school were not weaned away from their farm homes, but have, through their weekly club meetings, been able to keep and broaden their outlook on farming and rural life with the result that without exception they are all planning to return to the farm better equipped for actual farm work, and with a saner view of the possibilities of farming and rural life and a knowledge of cooperation gained through pig club work.

The Caledonia Junior Breeders' Association is a good Illinois example of the well organized dairy calf club. Organized in a community where a large number of breeds and cross-breeds were prevalent this club promises to unite the community on a one-breed basis. Eleven boys organized through the efforts of the county agricultural agent and the help of the bank. Eleven pure-bred Guernseys from dams averaging above five hundred pounds were purchased in Waukesha county, Wisconsin, at an average cost of a little over one hundred and fifty dollars. The boys have their own cooperative insurance carried by the bank, and in case one of the heifers should die, through no fault of the boys, a new one would be purchased and the cost prorated on the notes of the boys held by the bank. The interest taken in this project, both by the adults and the boys, promises much for the future live stock solidarity of the community. Already two adult Guernsey bull associations have been formed. The very name "Caledonia Junior Breeders' Association" is significant of the future the boys are building for themselves and their community. They hold their meetings biweekly and study calf feeding, pedigrees and all subjects related to dairy husbandry. The club has already formed a bean club for next year in order that they may pay part of their note this fall with the money from the beans.

Another successful calf club is the "Young America Calf Club," of Carson City, Michigan. Eighteen boys and girls were enrolled in this club early in 1917. The club chose pure-bred Shorthorns as their breed and started work. This club meets every month for the purpose of study and inspiration. Their work during the summer was featured by several educational trips around the county, visiting good examples of farming practice and looking over each other's Shorthorns.



A Pure-bred Guernsey Calf.

The product of expert furriers

ELLSWORTH COATS are not made like ordinary sheepskin-lined outdoor coats. On the contrary they are carefully tailored by skilled fur-coat makers—with 40 years experience at their command.

This difference of manufacturing methods explains the greater comfort and greater wear of these famous cold-weather garments.

Every Ellsworth sheepskin-lined coat is made of selected skins, tanned so they are soft and pliable, carefully matched.

Note the big, warm fur collars that fit snugly around the neck. Korsey Felt reinforcement provides greater warmth over the front of the body and helps the garment hold its shape. These coats have many points of superiority yet they cost no more than others.

If your dealer cannot supply you, write to us.

Ellsworth & Thayer
Mfg. Co.,
Fur Coat Makers for
40 years
Milwaukee, Wis.
Dept. 24



Ellsworth
Sheepskin-lined Coats
and Leather Lined Vests

When You Write to Advertisers Please Mention This Paper.

Much credit for their success is due to the banker, Mr. Stebbins, who is also acting as the local leader for the club.

These clubs differ somewhat from the first live stock work for boys and girls which was more in the nature of a contest. The present plan looks to the future interests of the community, both as to live stock and to the citizenship of the rural community. Many of the first attempts at this work were more or less temporary in their results. A large number of calves would be brought in and distributed among the boys and girls in the spring. These would have very little, if any supervision, and would be called in for a sale in the fall by the bank. The young stock would then all be sold off, the banks paid and not a great amount of permanent good would result.

The present plan of feeding and growing out the young stock the first year, and the second year start with a breeding project, followed the third year with a herd project, a sow and litter project or the like, has more of value in it. It tends to permanency since the boys become interested in stock production, and the social features of the club meetings build up a community life that is doing much to show boys and girls the worth while side of farming and rural life.

One of the newer clubs which is gaining widespread popularity this year is the sheep club. Each boy in the sheep club purchases three or more bred ewes, giving the bank a two-year note for the purchase price of the sheep. This gives the boys the chance to make payments from the sale of wool, the sale of wether lambs, and thus by keeping the ewe lambs, build up a nice little flock for himself without disposing of his original sheep.

One of the most successful sheep clubs is the "More Wool, More Mutton Sheep Club," of Traverse City, Mich. This club has thirty members, each taking care of three ewes and their offspring. These sheep clubs are doing much to renew the interest in sheep husbandry.

Pure-breds are coming into their own, and while the progress in this line has been, for the most part, gradual, it is none the less sure. The pure-bred calf club, sheep club or pig club is playing a large part in popularizing the pure-bred idea. The plan makes it possible, through the assistance of the banks, for the work to be started in a gradual way in many cases where pure-breds would otherwise be out of the question. Pure-bred stock clubs are pointing the way, but more and better than that, they are building up in our communities a class of farmers trained to cooperative organization and a class that has seen the value of co-operation. They are building up communities that, through training, are better fitted to care for live stock, and communities that will have the advantage of one standard breed. Most of all, however, these communities will be such that they will not only find for themselves the benefits of that newer organized type of farm life, but they will continue to point the way.

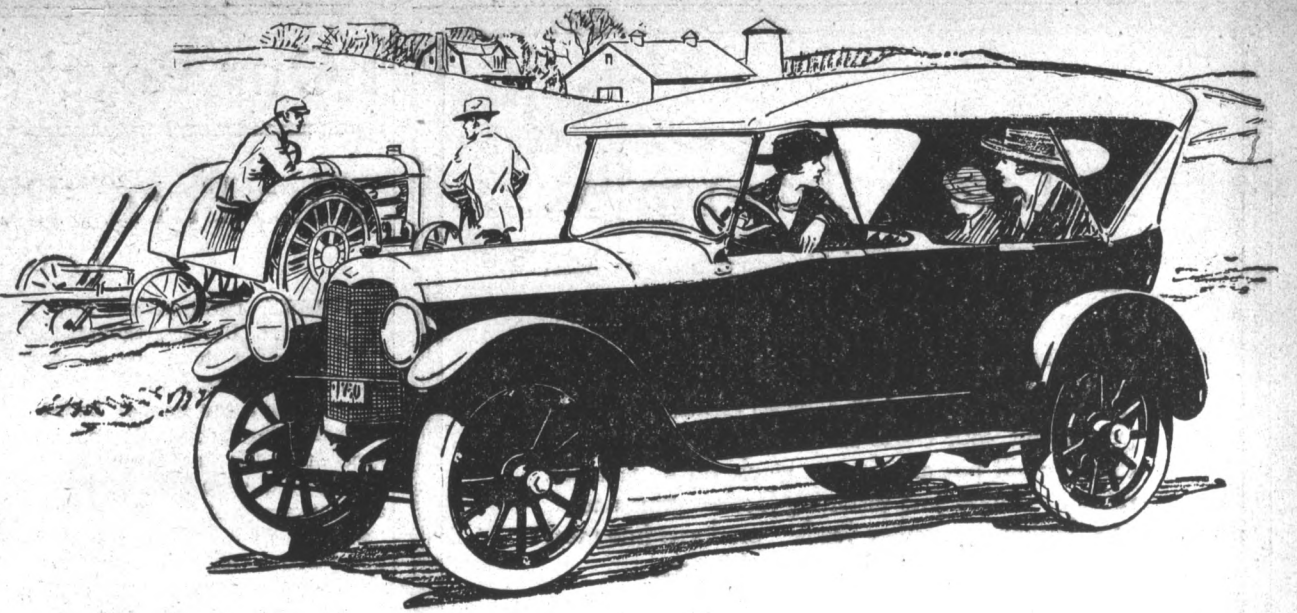
THE SCOTCH OF IT.

Two old Scotsmen sat by the roadside, talking and puffing away merrily at their pipes.

"There's no muckle pleasure in smokin', Sandy," said Donald.

"Hoo dae ye mak' that oot?" questioned Sandy.

"Weel," said Donald, "ye see, if ye're smokin' yer ain bacca ye're thinkin' o' the awfu' expense, an' if ye're smokin' some ither body's, yer pipes rammin' tae tight it winna draw."



PAIGE

The Most Beautiful Car in America

Quality!

The price of every Paige car is established by the cost of high grade manufacturing materials and expert workmanship.

These two factors are the essentials in any fine product. To compromise on either one of them means to lower the standard of manufacturing—and that is precisely what this company never has done and never will do.

We do not make cheap cars for the simple reason that we have no faith in cheap materials or cheap workmanship.

As we have said repeatedly, we believe that Pride and Self Respect have an actual market value, so we build these qualities into every Paige that leaves our plant.

With such a policy there can be only one result. Our cars go into service with an honest heritage and a limitless capacity for hard, gruelling work.

They endure because they are fit to endure. They prove, day by day, that they are worthy of our complete confidence and every penny that has been invested in them.

PAIGE-DETROIT MOTOR CAR COMPANY, DETROIT

Read what a trapper writes:

Mr. Warehoff, Dear Sir: I am shipping you today 1 bag of furs, it is no use for me to grade them as you have been giving me very good grades. Jacob Vos, Dillsburg, Pa.

RAW FURS

We do not claim to pay the highest price in the world—but we do claim and absolutely guarantee to give you every dollar your pelts are worth—often more than you yourself expect.

Send us a shipment today or write for our price list. It's free. We know our grading will please you, so hurry up and connect with us. It's up to you.

Sol Warehoff & Co., Inc., 156 West 25th Street, New York City

More Cash For Your Raw Furs

Ship to the Co-operative Raw Fur Company

And get more cash for your Raw Furs. This the big year—the opportunity to make big money trapping. Ship to a responsible house that

PAYS YOU PROMPTLY CHARGES NO COMMISSION

Mail and express charges paid by us. You get the biggest net returns, quickly, without waiting or delay. Send us your first catch and get

10 PER CENT MORE CASH

More than you can get from any other house in America. Years of satisfactory service to trappers have made us the foremost fur exchange.

PRICE LIST FREE

Write at once.

Get on our list and keep up-to-date on latest prices—prices that enable you to make the most money. Send name at once. A postal card will do.

The Co-operative Raw Fur Co.
85 Jefferson Ave., Detroit, Mich.

Good Clubbing Offer

No. 5.

Michigan Farmer\$1.00
McCall's Magazine 1.00

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

OUR PRICE ONLY \$1.55

No. 6.

Michigan Farmer\$1.00
Gentlewoman20
Home Life35
People's Popular Monthly..... .25

Regular Price, one year.....\$1.80

OUR PRICE ONLY \$1.50

No. 7.

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

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

OUR PRICE ONLY \$1.60

No. 8.

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

Regular price\$5.00

OUR PRICE ONLY \$3.90

No. 9.

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

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

OUR PRICE ONLY \$2.00

No. 10.

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

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

OUR PRICE ONLY \$3.90

Salesmen Wanted

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

The Michigan Farmer

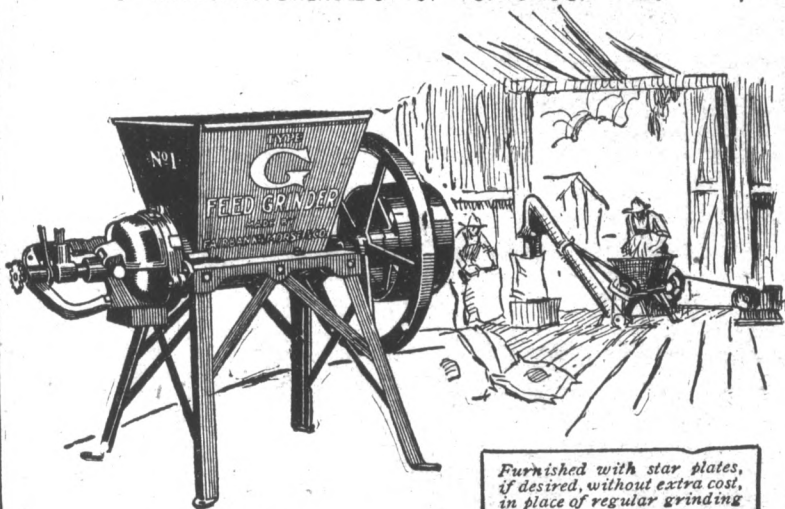
Where 90 lbs. = 100 lbs.

GROUND grain weighing 90 pounds has been found by actual test to do the work of 100 pounds of unground feed. Think what this means in added profits on your farm!

A Fairbanks-Morse "G" Feed Grinder will help you to put your cattle and horses in prime condition—will put all of your stock on a balanced ration. Makes fine fattening foods—grinds corn, oats, barley for poultry feeds—produces fine meal for calves, lambs, pigs, cattle and horses.

Quality built "G" Feed Grinders are money-makers. See them at your dealer; arrange to put one at work on your farm and watch the results that follow.

Fairbanks, Morse & Co.
MANUFACTURERS CHICAGO



No. 1 "G" Feed Grinder

Furnished with star plates, if desired, without extra cost, in place of regular grinding plates.

MORE \$\$\$\$ FOR Your RAW FURS IN NEW YORK

My Prices Are Guaranteed

Beware of High Price Lists sent out to deceive you and get your furs. The higher they quote the loss you get.

The secret of a square deal is honest grading at market prices. I guarantee my price until next list is issued and will not quote more than I can pay on an honest assortment.

Enjoy that peace of mind that comes to a shipper when he knows he is shipping to an honest firm.

You will make no mistake shipping to me and be glad you made my acquaintance.

**HONEST GRADING
HONEST PRICES**

No commissions deducted. I pay express & parcel post charges. Prompt returns and widest credit.

Write at once for Price List while you have me in mind.

BENJAMIN DORMAN
147 W. 24th ST. NEW YORK

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 furs 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.

When Writing to Advertisers, Please say "I Saw Your Ad. in The Michigan Farmer".

Why We Pay More For Your

FURS

If you want the most cash for your furs—in the quickest time—write us at once. We need all the Skunk, Muskrat, Opossum, Raccoon, Fox, Bear, Beaver, Lynx, Marten and Mink furs you can ship, and will pay spot cash same day shipment is received.

Highest Market Price

Our high prices, fair and honest gradings, prompt returns and fair dealing is proven by our thousands of satisfied shippers everywhere.

One of the biggest trapping seasons known is here. Furs are in amazing demand all over, so don't be satisfied with ordinary prices. Ship direct to Geo. I. Fox. Practically all furs eventually reach the New York Market and we can therefore pay you higher prices by buying direct from you.

You Get All Your Money

No deduction for handling—no commission charge. On all shipments over \$75 we pay you 5% extra above quoted prices. Don't ship a dollar's worth of furs to any one until you compare our latest special price list and advance information, free on request, with free shipping tags and Trappers Guide.



GEO. I. FOX

The House That Guarantees Satisfaction
218-164 W. 25th St., New York, N. Y.

SKUNKS

Minks, Coons and Muskrats our specialty. Get higher prices and quicker service by shipping your furs to the old reliable, the house that made St. Joseph famous as a fur market. Send name for shipping tags and market letter.

ST. JOSEPH HIDE & FUR COMPANY
JOSEPH, N. 2nd Street, St. Joseph, Mo.

Our Boys' and Girls' Page

The Farm Boy and His Books

By C. A. Spaulding

EVERY rural school now has its school library, though a great many of them are not worthy of that name. Much depends upon the teacher and the school board at the time the library is built up, as to what type of books find their way into the homes of the students. Some libraries are composed of nothing but the trashiest kind of fiction. Others are made up of books that are over the heads of the ordinary rural school pupils, while others, under the direction of the far-sighted teacher, are well-balanced libraries in the best sense of the term.

If parents, as well as the teacher, could but stop for a moment and realize the far-reaching effect on the life of the boy of the books he reads in youth and early adolescence, much more time would be taken in the building up of the school library and considerable more study would be given to its use.

Many boys, of their own accord, do not naturally like to read. Others have a particular desire to read a certain type of literature, mostly prohibited by teachers and parents, such as the "Wild West," "Nick Carter," "Diamond Dick," and other adventurous tales. A great field of influence is opened up to teachers and parents when they stop to consider that the normal boy must have his heroes, and must in certain phases, pattern his daily life after them.

By careful methods, it is possible to teach every boy to like to read, and once taught to enjoy reading, it is but a step to teach him to read the right kind of books and magazines. You have only to read the histories or biographies of our great men, to see the part played in their lives by the printed page. Some boys, of course, read too much and must be encouraged to get outside more and take a part in athletic games and other exercises that build up the boy physically. Others have to be brought most carefully to the point where they desire to read.

An effort should be made to master and remember the things read. It is a very harmful practice from a psychological standpoint to read a great amount without remembering it, simply to read for the passing away of time. I have known people to get into the habit of reading book after book of fiction without attempting to remember the material read, and without exception, it reacted unfavorably upon their memories. The habit of skimming over a book in two or three hours is a bad one, for it does not teach one to retain. If a boy can be taught to read and to retain what he reads, a great forward step has been made in the education of that boy. It is my contention that this can be accomplished by parents and teachers, if they use the right methods. We must bear in mind the age of the boy and the things he likes at that age. Then by using the best books and magazines that contain material of interest to such a boy, it is possible in almost every case, to cultivate a deep love of reading.

It is not my purpose to give any great number of books or papers that may be used, but it may be well to mention some of them. There are many so-called historical novels, for instance, that will give a boy a liking for history, and will instill in him a deep love of country. Many magazines make a study of boy life and cater to his tastes. Such magazines as "St. Nicholas," "The Youth's Companion,"

"The American Boy," and others of a like character have much to offer those who have a chance to read them.

Every boy has his heroes and if these can be selected, as it were, for him, the influence exerted upon him is bound to be great. It is of much greater importance that a boy should have an opportunity to read some of the simply written lives of Lincoln or Washington or Hamilton, or Roosevelt, than to have simply the fly-spotted pictures gaze at him from the school room wall day after day. No boy should grow up without reading the lives of many of these great men. Every boy should have a chance sooner or later, to read, "George Washington-Farmer," "The Winning of the West," by Roosevelt, "Abraham Lincoln—Boy and Man," and books of this character. To these may be added many of Thoreau, Whitman, Scott, Cooper and other great American and English writers. It is impossible to estimate the far-reaching effects of such reading upon the developing boy.

Such books and magazines as have been mentioned should be found either in the home or the school library, but if they are not to be found there, they can nearly always be found at the nearest city library. Besides the reading of such books, the farm boy should be encouraged to build up a library of his own. If he is interested in farming, he can always obtain books and bulletins from the United States Department of Agriculture, and the various State Colleges of Agriculture that will interest him. He can obtain subscriptions to papers and magazines that contain special boy sections by getting up subscription lists to these publications in his neighborhood.

If he is especially interested in scientific things, he can in the same manner satisfy his desires along this line. The farm boy's reading should receive the earnest attention of his parents and his teachers, for it will be reflected in his life.

THE TASK OF THE RURAL CHURCH.

(Continued from first page).

5. Something to raise the standards of life in the home.
6. Something to improve community conditions.

7. Something to encourage the Christian practice of tithing.
The club members are divided into seven activity groups, the aim being to have about the same number in each group. Each division is specially charged with the task of doing the work assigned to that division. These clubs cooperate with the state by becoming members of the County Farm Bureau.

Not every preacher is qualified to operate one of these clubs. The work requires wise leadership and special training. Not all the clubs organized have done good work. In no instance has the fault been with the club, nor is there evidence that the organization was not needed. Failure may grow out of community conditions. It may be due to poor leadership. In the hands of an urban-minded preacher the club is sure to fail. When we get enough preachers to operate Community Betterment Clubs successfully a new era for all Michigan will be here.

Another phase of the work now planning that promises well for the future of our rural life is found in the new way being provided whereby rural

mind and efficient preachers may secure deserved promotion without heading straight for a city pulpit. When this plan becomes fully operative preachers can look forward to a rural ministry and feel that positions of trust and commanding influence may be theirs.

To those who have a statesmanlike vision and grasp of the rural problem this program is sound and full of promise.

(We are able to publish Dr. Diehl's scholarly production through the courtesy of the Michigan Christian Advocate).

CASING PELTS FOR PROFIT.

It is one thing to catch an animal and another to skin it and care for the pelt in such a way that it will bring top price. One tainted spot on a pelt means a damaged fur and reduces its value materially. A little care often adds \$5 to a \$10 shipment.

The trap line should be run each day so the furs will not spoil in the water. Always knock or shoot the game in the head. If the animals are frozen do not put them in an oven or hold them over a fire, just put them in a bucket of cold water and leave them there ten or fifteen minutes, being sure the water is not left where it will freeze.

When skinning an animal use a good sharp knife. Always make long strokes and then the skin will not be ragged.

Skunk, muskrat, possum, mink, otter, weasel and cat hides should be cased with the flesh side out. Fox and wolf hides should be cased with the flesh side out and dried for a few days and then they should be turned and dried thoroughly with the fur side out. Raccoon, badger, beaver and bear hides should be taken off open. The bone should be removed from the tail of skunk, coon and ringtail cats. And don't forget to scrape the fat from all pelts, being careful not to go so deep as to injure the roots of the hair.

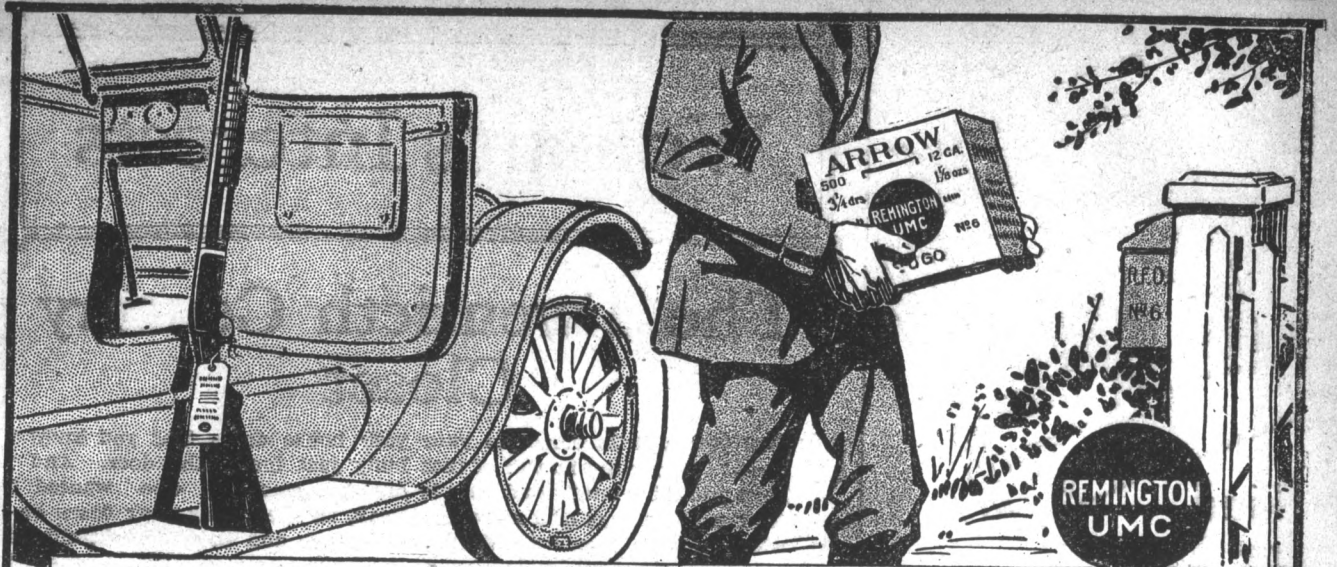
Muskrat hides should be cased on boards fifteen to sixteen inches long and four to five inches in width. Mink hides should be cased on boards twenty-two to twenty-eight and a half inches long and three to four and one-half inches wide. Skunk and possum hides should be cased on boards twenty-six to twenty-eight and a half inches long, and from six to nine and a half inches wide. Fox hides should be cased on boards forty-five to sixty inches long and fourteen inches wide. All stretcher boards should be about one-half an inch thick and should be well planed, so no splinters can damage the hides.

Don't dry any skins by a fire or in an oven. It ruins them. Always dry in a cool, dry, shady place and never expose them to the sun. On the north side of a building is a good place to hang them.

Tie all bundles for shipment with strong cord—not with wire, placing fur side to fur side in the bundle facing hides of a size together.

E. W. G.

TODAY'S RIDDLE



Buy For Service

BRING home Remington UMC for your shooting if you are modern minded. Your first leisurely and critical examination of your purchases will reconvince you that you have bought wisely. And use will prove it.

No other equipment the up-to-date farmer or ranchman buys is more typical of modern efficiency than the Remington UMC products he uses to get some game for his table. And in the long list of important Remington UMC inventions underlying this, none has been of greater value to him than the wonderful Wetproof improvement in shot shells.

Wet shot shells will never again bother you if you buy Remington UMC Wetproof "Arrow" or "Nitro Club" smokeless or "New Club" black powder shells. The hardest rain or longest soaking in a leaky boat will not affect them.

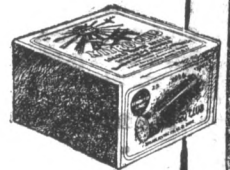
In body, crimp (or turn-over) and top wad they will remain hard and smooth as if fresh from the loading machine, and they will work freely through your modern Remington UMC autoloading or pump gun, without a hitch, firing as surely and with the same top speed, best pattern and penetration.

Remington UMC can now be obtained in more than 82,700 leading sporting goods and hardware stores in the United States—another detail of best service.

For Sale in Your Nearest Town

Clean and oil your gun with Rem Oil—the combination Lubricant, Powder Solvent and Rust Preventive.

THE REMINGTON ARMS UNION METALLIC CARTRIDGE COMPANY, Inc.
Largest Manufacturers of Firearms and Ammunition in the World
Woolworth Building New York



*Watch it grow in 1919.
This is the way wise shippers
have been getting money for
Raw Furs from the house of
Pfaelzer during the last five years*

1914 _____

1915 _____

1916 _____

1917 _____

1918 _____

1919 prices will make other years look like 30 cents

The 1919 Pfaelzer prices, liberal assortments and quick money will take you off your feet. They will open your eyes. They will establish a record, for we must satisfy the tremendous demand for Raw Furs and we must have them quick. Therefore, hurry your first 1919 shipment to the House of Pfaelzer. Write for the Pfaelzer price list, but ship anyway. The House of Pfaelzer will let you run no risk. The Pfaelzer guarantee of top prices and liberal grading is your absolute protection. New York is the world's fur headquarters and the House of Pfaelzer is New York's leader in boosting Prices for Raw Furs.

M. F. Pfaelzer & Co. 115-123 West 29th St., Desk 20, New York
Members Merchants' Raw Fur Association

AMERICA'S LEADING FUR HOUSE
Established 1853

TRAUGOTT SCHMIDT AND SONS
Cap. \$1,750,000

PAY THE MARKET'S HIGHEST MARK

You'll be sure of top prices if you ship your furs to us. WE DO NOT QUOTE A "SLIDING SCALE" OF PRICES. Instead we quote ONE **DEPENDABLE PRICE**—then stick to it. You can be absolutely positive of what you will get. We charge NO COMMISSION and pay you every cent your furs are worth.

WE PAY SHIPPING CHARGES
We pay all express or parcel post charges, saving you lots of money this way during the season. We send your check on next mail after furs are received, so there is no waiting or delay.

WRITE AT ONCE
For our valuable booklet "Successful Trapping" tells you how to get the most money for your furs—dependable price list, market news and shipping tags—all free.

FREE SUCCESSFUL TRAPPING

Traugott Schmidt & Sons.
199 Monroe Ave. Detroit, Mich.

Rise good rabbits. Giant and pedigree N. & Reds of quality, prices right, write your wants, guaranteed to please. J. E. Seckinger, Manchester, Mich.

Please Mention The Michigan Farmer When Writing to Advertisers



Send for Your Copy of This Book

LEARN how easily you can have a beautiful, completely equipped bathroom with white enameled washstand, bathtub and closet; an efficiency kitchen with a large one-piece sink, and a work-saving laundry with handy stationary tubs.

This book shows a choice line of

"Standard" Plumbing Fixtures

especially adapted for farm homes. Illustrated in four colors. Shows beautiful bathroom, kitchen and laundry scenes, as well as a variety of fixtures at a wide range of prices.

Send for a copy. You will find it a big help in getting the ideal fixtures for your home.

Standard Sanitary Mfg. Co.
Pittsburgh

Also ask about "Standard" Farm Lighting Plants and Water Supply Systems.

Vaseline Reg. U.S. Pat. Off. Carbolated PETROLEUM JELLY

An invaluable antiseptic for sprains, sores, blisters and bruises. Keep a bottle always handy.

For sale at drug and general stores everywhere—10c.

Booklet containing valuable advice—free.

CHESEBROUGH MFG. COMPANY
(Consolidated)
27 State Street New York City



Ro-San Indoor Closet

More comfortable, healthful, convenient. Takes place of all outdoor toilets, where germs breed. So ready for a long, cold winter. Have a warm, sanitary, comfortable, odorless toilet in the house anywhere you want it. Don't go out in the cold. A boon to invalids. Endorsed by health officials everywhere.

Guaranteed Odorless
The germs are killed by a chemical in water in the container. Empty once a month as easy as ashes. The original closet. Guaranteed. **THIRTY DAYS' TRIAL.** Ask for catalog and price.

ROWE SANITARY MFG. CO.
10141 Rowe Bldg., Detroit, Mich.
Ask about Ro-San Washstand and Rolling Bath Tub.
No Plumbing Required.

Please Mention The Michigan Farmer
When Writing to Advertisers.

Woman's Interests

The Twentieth Century Closet

HAVE you a little closet in your home? Or for the matter of that have you a big one? And does it look like the beginnings of a rummage sale, with father's trousers draped gracefully over the hook which holds mother's best silk dress and Susie's and Johnnie's garments piled indiscriminately on the same peg or tossed carelessly on the floor among the family collection of shoes? My experience of the average farm house has been that there was no closet at all, or at best but one or two small ones which absolutely would not stay tidy. Mother goes through it every day and hangs the clothes on the individual owner's

your house dress that you knew you hung just inside the door. And you did, but someone else wanted that hook, so they hung your dress on another one and then thoughtfully piled five or six garments on top of it. You have wished someone would get up a small garment carrier that folks could use at home. And they have. Best of all, let me break it gently to you, they are cheap. You can positively buy one that will hold twelve garments, for sixty cents. Two of them would hold all the clothes the family owns jointly. Think of being able to keep your closets looking right for \$1.20!

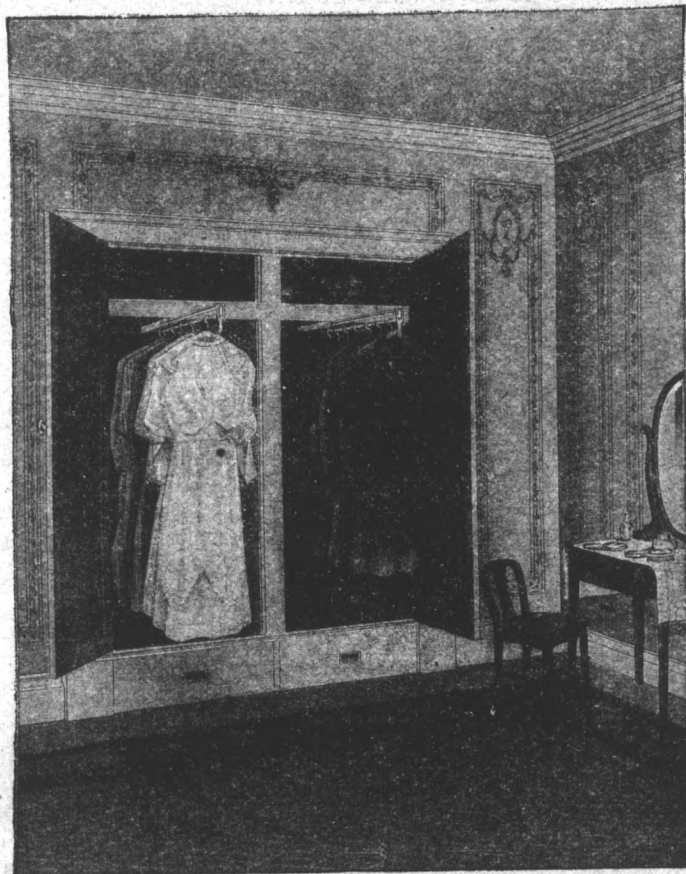
The carrier, which works on exactly

much better to hang up dresses or coats on a hanger. Unnecessary creases and wrinkles are avoided and the garment can be worn much oftener without pressing.

Added to the saving of your time and the wear on your clothes, the new closet will actually save you dollars



This Handy Device Saves Time in Searching for a Particular Garment.



Two-apartment, Built-in Wardrobe Equipped with Garment Racks which are Easily Drawn Out into the Room.

hook, but when the family gets in its ready work the last state of that closet is worse than the first.

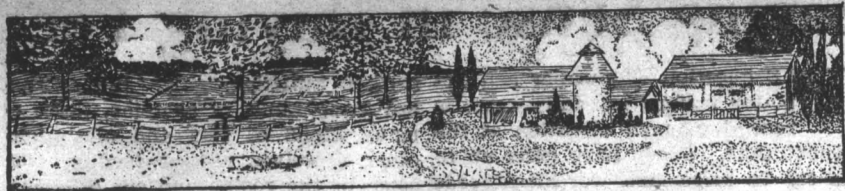
If you have a closet I'm going to tell you the best way yet invented to keep it "picked up." If you have a small one I'm going to show you how to make it seem larger and utilize all the space, and if you have none at all this will show you the way to remodel your room and get an equivalent for the closet. If you are planning on building with a great big roomy closet in each chamber, under the delusion that then they'll hang up their clothes, or bedding stored there, don't. For they won't hang them up.

Instead use this new idea for closets—carrier makes the built-in wardrobe and save yourself the money needed practical and convenient. The wardrobe may be built like the closet shown, with shelves above for hats, and drawers at the bottom. This new type of closet is being built into most modern homes. As you see, it is in two sections so that the two persons occupying the room may keep their garments in their own locker. It is but a moment's work to pull out the carrier, and every garment is instantly in sight, hung as it should be on a garment hanger instead of by the neck or shoulder. Good care doubles the life of any garment, and it is certainly

and cents if you are building. Many farm homes will be built during the next year. The war has kept the new home back for two or three years, but now it is to be built. It is going to cost a lot of money, a great deal more than it should, most of us think. We want as large and as fine a house as we can get and we don't want to go into bankruptcy to get it. Here is one way of making the house smaller and yet more convenient than the house with larger closets would be.

The average closet is at least three feet deep. With the garment carrier and two apartment closet you could easily cut that down to two feet. In the modern house the closet space for adjoining bedrooms comes out of the same wall, so you thus save one foot of space in each room, or two feet on the depth of your house. I do not know what it costs to build this extra foot today. Ten years ago when we built a two-story brick and shingle eight-room house, the contractor asked \$150 for each extra foot of depth. For example, the house was twenty-four feet deep. Had it been twenty-six feet deep it would have cost \$300 more. Figure for yourself how much the cost of building has gone up in ten years and you have a pretty good estimate of how much you save by eliminating that extra closet space. Probably \$800 or \$900 would be nearer the present figure, and your whole house could be equipped with the carrier and hangers in every closet for around \$15.

When you build, plan for convenience. Study plans and other people's houses first, and then build yours to save as much space and as many steps as possible. The farm women, more than any others, need all the labor-saving conveniences known to man. They are absolutely without help and their only salvation lies in making their work as easy as possible. The garment carrier ought to help in that almost impossible task of teaching the children to hang up their clothes. If a handy little hanger is right at hand, does it seem possible they will continue to leave everything thrown about on beds and chairs, or, more likely, the floor? At least until the novelty wears off, the youngsters will hang up their things, and even that little would help.



Simple Fabric Tests

HOW to know materials—cotton, ant, cotton crushes and becomes soft, linen, wool, silk—should be a linen remains smooth and strong, and part of every girl's education. It silk cuts. has always been desirable for women to know what they are buying, but with the present exorbitant prices for fabrics it has become an absolute necessity. What is more disheartening than to pay a fancy price for a piece of cloth which you are told is linen, and to find after it has been washed that you have bought nothing but mercerized cotton? Or to buy a garment advertised as pure wool and have it show up as shoddy after it has been worn a few times? There are a few simple rules for determining what you are buying which any woman can learn and apply.

If possible get a sample of the goods and take it home with you. Test thoroughly and make your purchase later. If you must test it in the store there are a few simple tests you may try. Perhaps the best known one is rubbing between the hands. Linen rubbed between the hands will remain smooth, cotton will show a rough surface, and sizing, that is starch, gum, tin, clay, etc., which are often added to give body and weight to the fabric, will show up as dust. If shoddy has been added to wool it will rub out. If a piece of cloth springs out into shape after rubbing, leaving no wrinkles, it is a pretty safe buy.

The appearance of the cloth will help in a way to determine its kind as linen has a luster and cotton and wool are dull. But as cotton is often mercerized this is not a very reliable test. Linen feels cool and leathery to the touch; cotton feels warm; wool, warm and soft, and silk warm and slippery. When cotton is torn the ends are even, curled, tufted and fuzzy. Linen threads torn leave strong, straight, uneven ends, more lustrous than cotton. This will help you decide if your linen is part or all cotton.

Biting the fabric is a test seldom employed. Wool is gritty and unpleas-

Finally hold the cloth to the light. This will show up imperfections in the weave, or looseness. If the fabric is filled with starch or other sizing you can see it between the threads.

If you have time to take a sample home the burning test is easy and reliable. Cotton burns up quickly into a flame and leaves no ash. Linen burns something like cotton, but does not flame up so quickly. Wool burns slowly, chars and gives off an animal odor. Silk burns slowly and leaves a little ash. If it is adulterated with tin the ashes will remain in the shape of the original sample.

If you are testing linen place a few drops of olive oil on the fabric. If it is linen it becomes translucent, that is, it allows the passage of light through the spot. If it is cotton, it becomes opaque, or impervious to light.

To decide if the cloth will stand laundering and sunlight, wash in soap and water and expose to the sun. To decide if it will "crook" rub the colored cloth on a piece of white cloth. If the color comes off the dye is poor. To decide if it will stand general wear cover half of the piece and place it in the window for two weeks. If general wear will fade it the uncovered half will be faded in this time. Fastness of color to perspiration is shown by dipping the sample in warm acetic acid and drying without rinsing between blotting papers.

If you have bought wool, fold it and place it between weights, or inside a book. If it is shoddy it will wear bare on the folds and edges. The pretty embroidered cottons you buy sometimes have the dots and patterns printed on. Pressing will scorch the design.

These tests are all so simple that even a school girl could learn to apply them. Do not run the risk of being cheated when you can learn to decide for yourself so easily.—M. A. L.

Oil and Paint Screens

By Mrs. E. O. Swope

GREAT care should be taken of window screens, as they represent quite an item of expense, especially when many large ones have to be used. When the season is over for using the screens, I take a sort of inventory of them, discarding those that are completely worn out. It is not enough to merely take an inventory of the screens on hand at the end of the season and properly place them away in some corner of the house where they will not be in the way until wanted again next season. This is indeed the way I used to do it, but I have found it a poor method and a costly one as well. All new screens bought each season are carefully painted over the woodwork or metal parts as the case may be, and the screening is carefully oiled with linseed oil. By this method I have been able to make the screens last many seasons.

A good time to do this work is late in autumn when we will have no further use for the screens until next season. By painting and oiling them at this time, the wood is preserved, will look better when the screen is brought out next season, and the oiling prevents the screens from rusting, which is important if we want them to last years' time.

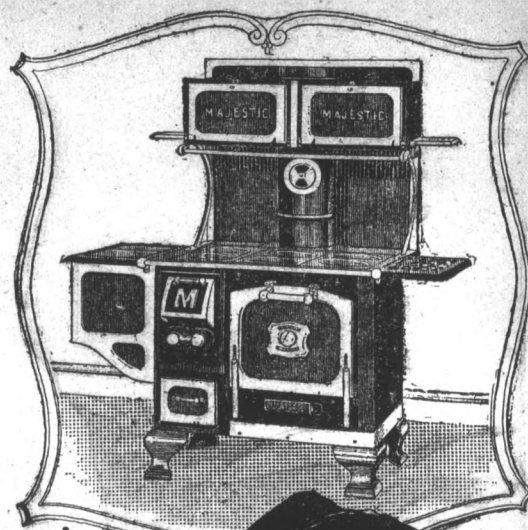
The screens should not be stored away in any old place in order to get them out of the way. It is best to pack them all together and cover them up nicely somewhere in the house where it is dry and clean. If covered with cloth or paper they do not become so dusty and it is a small matter indeed to get them ready for use next season. If rubbed lightly with an oiled cloth, they are again ready for use, look bright and clean, and with an additional touching up with oil, they will not easily rust.

It is best to oil the screens with a cloth that is saturated in oil, as by this method the screens are evenly covered, and too much oil will not get on them, as would be the case if a brush were used for the purpose. Too much oil would soil curtains or draperies coming in contact with screen.

Screens are a necessity in every home during the summer months. They are also a great convenience and make the house cool and attractive when properly cared for. The time spent in caring for them is time profitably employed and will save many dollars besides in the course of a few

Hot water —A plenty!

Just dip the boiling hot water whenever you need it, from the all-copper reservoir on the side of your Majestic Range. Reservoir top is level with range top, giving extra space. Patented heat pocket of reservoir fits directly against fire box—and convenient shifting lever moves reservoir close to fire, or away, controlling temperature of water.



Perfect baking, too!

Air-tight oven, all joints riveted, economizes fuel and assures delightful baking results. Large warming closets at top. Unbreakable malleable iron frame saves repairs. Pure charcoal iron body, best known rust-resisting material. Burnished cooking top requires no polish. Trimmings of smooth gleaming nickel. Whole range so easy to keep clean and bright.

Door panels and splashers back in lustrous Blue Enamel or White Enamel finish, if desired.

The Majestic Range is made in many styles and sizes—every style the highest range value obtainable at its price. Majestic prices the same everywhere—freight considered.

There is a Majestic dealer in nearly every county in 42 states.

Write us for Free Majestic Booklet.

Majestic Manufacturing Co.
Dept. 21 St. Louis, Mo.

Great Majestic
The Range with a Reputation

NERO COFFEE

There's more Nero consumed in Michigan than any other brand of coffee. Your grocer has it or can easily get it for you.

Royal Valley Coffee Co.
Detroit, Mich.

HOOSIER STOVES & RANGES FREE

To try in your home 30 days free no matter where you live. Show your friends, send it back at our expense if you don't want to keep it. Million members of families enjoying the comforts and pleasures of "Hoosier" Stoves & Ranges, perfect bakers and heaters, beautifully finished, smooth latest design, guaranteed for years.

Write for our big free book showing photographs, describing large assortment of sizes and designs of Steel and Cast Iron, Cook, Soft and Hard Coal Heaters, to select from explaining our free trial. Send postal today.

HOOSIER STOVE CO.
131 State St., Marion, Ind.

EGG-O-LATUM KEEPS EGGS ONE YEAR

It costs only one cent per dozen eggs to use Egg-o-latium. There is no other expense. Eggs are kept in carton or box in cellar. Eggs may be boiled, poached or used in any other way, just like fresh eggs. Simply rubbed on the eggs—a dozen per minute. A 50c jar is sufficient for 50 dozen eggs. At Drug, Seed and Poultry Supply Stores or postpaid.

GEO. H. LEE CO. Dept. 265 OMAHA, NEB.

A Special Clubbing Bargain

No. 3.

Michigan Farmer\$1.00
Swine Breeders' Journal..... .50
Today's Housewife 1.00

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

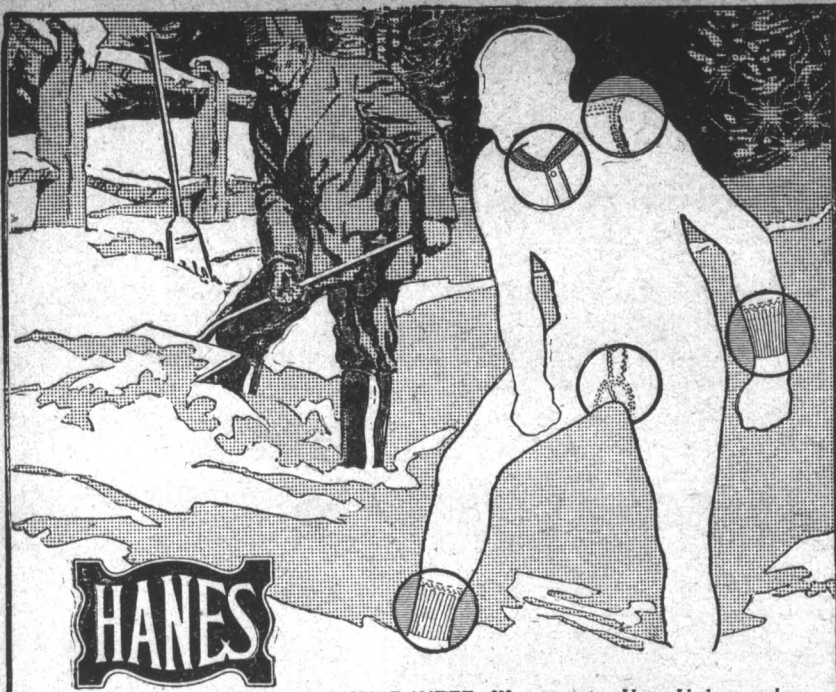
OUR PRICE ONLY \$1.85

No. 4.

Michigan Farmer\$1.00
People's Home Journal 1.00
American Boy 2.00

Regular price, one year.....\$4.00

OUR PRICE ONLY \$3.15



HANES
ELASTIC KNIT
UNDERWEAR

GUARANTEE—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.

Greatest underwear value in America at the price!

You can't get greater warmth or better workmanship or more comfort or more actual wear than every suit of Hanes winter weight underwear for Men and Boys surely will supply!

Hanes is made in winter weight Union Suits and Shirts and Drawers. Illustrated here is the staunchest, most comfortable, wear-resisting union suit ever sold at the price.

Hanes Union Suits have the most desirable and dependable features—unbreakable seams; reinforced, non-stretching buttonholes that last the life of the garment; tailored collarette that cannot gap; shape holding elastic shoulders; elastic knit wrists and ankles; pearl buttons sewed on to stay. And, a closed crotch that stays closed!

Hanes Shirts and Drawers have the same desirable quality; perfect workmanship and features. Drawers have the durable, snug-fitting 3-button sateen waistband.

Union Suits for Boys in quality, cozy warmth and workmanship are unsurpassed at the price! Reinforced at all buttonhole and strain points. In fact they duplicate Hanes Union Suits for men, with added fleeciness. Made in sizes from 2 to 16 years. Two to four year sizes have the drop seat.

If your dealer cannot supply "Hanes" write us direct.

P. H. Hanes Knitting Co., Winston-Salem, N. C.
New York Office, 366 Broadway

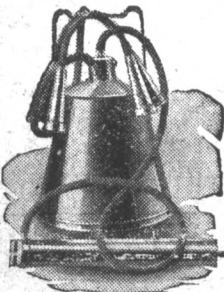
Warning to the Trade—Any garment offered as Hanes is a substitute unless it bears the "Hanes" label.

Speed, 25 Cows per Hour

This is the rate you can milk with a 3-unit Success Outfit. Many 12-year-old boys are doing it twice a day, saving the work of three men. For years the

SUCCESS OPEN VALVE MILKER

has been giving steady, reliable service at low power and upkeep cost. It is simple, sanitary, easily installed, easily operated and easy to keep clean. Valve and teat cups are simplest and most durable made. No pulsators or other complicated contrivances are used to secure a vacuum. There is no big expensive vacuum tank, no pipe line to pay for and install.



For smooth, uniform action the Success Open Valve Milker is unsurpassed. Cows actually like it better than hand milking and give more milk.

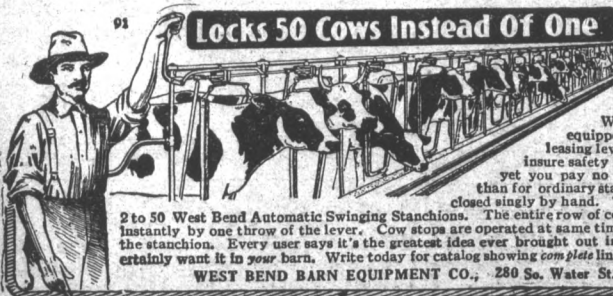
Send for free book answering the 15 leading questions farmers and dairymen ask about milking machines.

ANDERSON SALES COMPANY
1035 Winnebago St. Milwaukee, Wis.

BEST OF 4 MILKERS USED

We recently had a Success Milking Machine installed at Cedar Lawn Farm and have found it very satisfactory. We believe that out of the four different machines used on our various farms the Success fills the bill for simplicity and service, with honest cost. We are using it on young heifers as well as on 30 lb. cows.

C. A. SCHROEDER & SONS,
West Bend, Wis.



Locks 50 Cows Instead Of One

**West Bend
BARN
EQUIPMENT**

West Bend Automatic Stanchions equipped with our wonderful locking-releasing lever save you time and labor—and insure safety in locking up or releasing the cows, yet you pay no more for West Bend equipment than for ordinary stanchions that must be opened and closed singly by hand. The West Bend lever controls from 2 to 50 West Bend Automatic Swinging Stanchions. The entire row of cows can be locked up or released instantly by one throw of the lever. Cow stops are operated at same time, and when set guide cow into the stanchion. Every user says it's the greatest idea ever brought out in modern barn equipment. You certainly want it in your barn. Write today for catalog showing complete line of West Bend Barn Equipment.

WEST BEND BARN EQUIPMENT CO., 280 So. Water St., West Bend, Wis.

Saving Sense in Buying Feed

THE question of cheaper and yet better rations for dairy cows is receiving much attention at the present time. Feeds have gone up to the top in price, and worthless feeds have advanced in price as well—weed seed, elevator sweepings, oat hulls, grain smut, salt and molasses compounds sell with standard feeds in price. The ways are myriad of fleecing the dairy farmer who is content to put \$100 worth of these feeds into his cows to get \$90 worth of milk. If the government would be as active in suppressing bogus feeds that are on the market as it is in inspecting dairy farms and stamping out diseases of stock there would be a great improvement in the quality of products as well as in cow health.

The dairy farmer who has a herd of good cows that he wishes to hold up to the maximum of profitable production year after year, will find it necessary to grow and harvest the best alfalfa, clover and silage crops for the great roughage want, and when buying feedstuffs choose concentrates rich in protein, instead of products that the great manufacturing philanthropists have conserved in the interests of natural economy. Prices, attractive trade names and bulk feed should not tempt dairy farmers into buying feeds that are actually harmful to cows.

The bulk of these waste products is made up principally of carbohydrates, which are already available in the home-grown roughage. A fairly well balanced feed may be made out of these refuse heaps by adding to them materials containing protein and fat, as for instance, cottonseed meal. If that were all, the harm would not be so great, but in many of these feeds various refuse materials and weed seeds, whole or ground, are used in place of good protein concentrates. Weed seeds are always rich in nitrogen and when these feeds are analyzed the nitrogen in the weed seeds adds to the percentage of protein in the feed. The analysis gives no information as to the nutritive value of the so-called protein derived from the weed seeds. Some weed seeds are known to be poisonous. Little or nothing is known of the nutritive value of most weed seeds. The only way to find out is to feed them to cows and compare results. These facts are stated to show the fallacy of the popular belief that a pound of protein from one source is as valuable as a pound of protein from another source.

Fats Differ in Feeding Value.

This is even more true of fats than of protein. Fat as determined by the chemist is the ether extract and ether dissolves many things other than true fats. The ether extract of corn meal and the ether extract of cottonseed meal, both of which are called fat in tables of composition of feeding stuffs differ greatly in their composition and

in their nutritive value. Just as there are many kinds of proteins, there are many kinds of fats and oils. Then either dissolves out of feeding stuffs some of the resins and out of grasses the coloring matters, so that, for instance, the so-called fat of timothy hay has very little feeding value and is not at all analogous to the fat of grains or linseed meal.

Therefore the source of a protein or fat that the dairy farmer feeds his cows is not a matter of indifference. He cannot buy a ton of mixed feed containing so many pounds of protein and fat and be sure that the tables are anything like the same, so far as the cow is concerned—as when he gets his given weight of protein and fat from some of the standard feedstuffs that have not been put through various processes of manipulation by the manufacturer.

For the dairy farmer who grows good crops of alfalfa or clover hay and corn silage, cottonseed meal, linseed oilmeal, gluten feed, distiller's grains and wheat by-products make up the purchased feeds which he should ordinarily buy for his ration. A little corn meal may be used to advantage in almost any dairy ration, for there is something about corn that aids materially in milk production.

Digestible Nutrients Important.

Enough has been said to make it clear that in purchasing feeds for dairy cows the dairy farmer should have a better knowledge than is furnished by the label which declares the protein content, moisture, ash and carbohydrate content. The source of the material sold as a concentrate should also be understood. To be sure he may not yet be in a position to make full use of this information, but we do know at the present time that there are good proteins and poor proteins, and that certain proteins may be greatly improved in efficiency by using them in combination with proteins from other sources. Certain proteins from both the corn and wheat kernel are entirely inadequate when fed as the sole protein of the ration, because of their entire lack of certain amino salts, but when the entire kernel of either corn or wheat is fed the deficiency of these salts in the one part are supplied by the other, so that there are present in the entire kernel of the corn or wheat all the necessary amino salts necessary for complete digestion of the protein. This merely shows how it is possible for the manufacturers to so rearrange the proteins in feedstuffs that their value for dairy feeds may be impaired or improved. The protein from corn and wheat have greater nutritive value when fed together than when fed alone.

Another valuable lesson for feeders is the remarkable supplemental power of the proteins of oilmeal for those of corn meal. The proteins of these two



The Old Way of Harvesting Corn Yields to Modern Methods which Conserve a Larger Portion of the Digestible Nutrients of the Plants.

Please Mention this Paper When Writing to Our Advertisers

feeds are evidently each poorly balanced in their make-up, but one is weak where the other is strong, so their mixture is better than either one alone. This plainly shows that feeders have much to learn concerning the problem of compounding proteins and fats from different sources in order to increase the efficiency of the ration. It also explains why it is always desirable to feed a variety of grain feeds instead of depending upon one or two kinds of grain feeds.

Likewise succulent and juicy feeds assist in making protein feeds more efficient. An excess of dry, indigestible material in the digestive tract not only prevents the digestive organs from utilizing the protein, but it actually absorbs the secretions of the tract and these secretions contain considerable protein that is not derived from the food that is in it, but from the digestive glands. The dry, indigestible matter holds these secretions and all that are dissolved in them so that the proteins are lost to the animal.—K.

CHEAPER MILK.

(Continued from page 486).

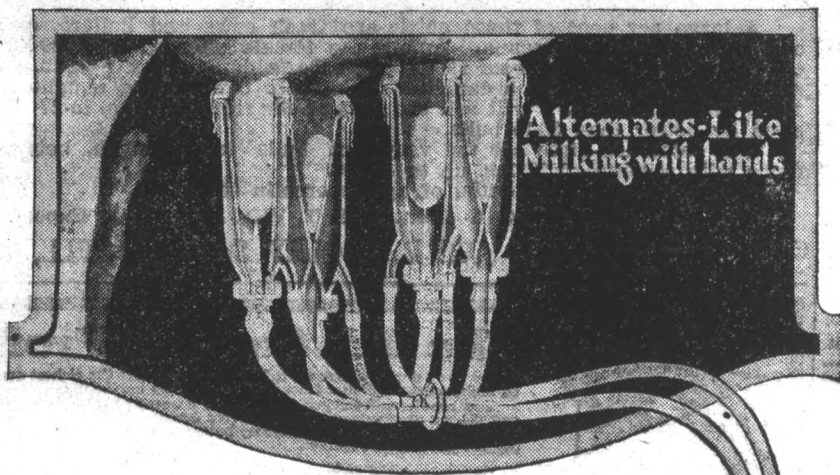
present the situation you could place a carload in a single day, and you will be able to find county agents in the dairy districts who will be delighted to pick you up just the kind of bull calves that you want. They must all be registered before they are shipped. I do not want any of the buyers of pure-bred cattle to be imposed upon by the doctrine that animals are pure-bred but not registered. The only proof we have of pure-bred is the registration and that is the only thing that you can be guided by.

I made the statement in Washington when the question of increasing the dairy products was before the government, that the dairy products could be increased twenty per cent in sixty days any time if it was worth while and profitable, by increased feeding of the animals, and I believe it now, but this can only be done with animals that can profitably turn the feed into dairy products, and it is only without utter disregard to cost of production that you can feed scrubs the present high-priced grains. I am convinced, and I have seen evidence of it time after time, that you can take the average scrub herd and increase the production more than fifty per cent in two generations and do it on the same feed that the scrubs had. This is not so strange when you stop to think about it. It is simply increasing the production by more efficient machinery and these cows are simply milking machines. What worries me is that so many thousands of our farmers will waste their time and effort on inefficient machinery.

Another reason why scrub bulls should be done away with entirely is the necessity of raising more dairy cattle, and the evidence that is before you every day of the difference in the price of these machines when you want to buy them. Scrub cows are sold all through the dairy country at prices from \$50 to \$85 per head, an extraordinary scrub might bring \$100, while the grades run from \$100 to \$250 because of their value in producing milk and dairy products. When you go out to buy a piece of machinery you pay in proportion to what it can earn for you, and ever man who is keeping a cow now on his farm owes it to himself to keep a good one, and every dairy farmer should have a pure-bred sire in order to raise his own calves for his own herd, because of the difference in the cost when he goes out on the market to buy them. The difference between the value on the market of the average scrub and the average grade will pay for a pure-bred registered calf two weeks old, and that same calf during a lifetime would create hundreds of the better grade of machinery if given the opportunity.

Universal natural milker

Alternates, Like Milking With Hands



For Six or Six Hundred Cows Time and Money Saved

Whether the herd numbers six or six hundred, milking time comes 'round twice a day. And they all have to be milked 730 times a year.

Milking takes time, hours by hand, but only minutes with the Universal.

The Universal Natural Milker is a big time and money saver. Many find it one of the best methods of keeping ahead of rising costs. It increases profits also.

A boy or a girl of twelve can operate two double units, milking four cows at once and do the work of three men in one-third the time.

Nature's own method is imitated. While two teats are being milked, two are being massaged. The flow of milk is stimulated and cows frequently give more milk by this comfortable, mechanical process.

Universal is easy to clean and more sanitary to use. Once you have used a Universal you would not do without one.

See our nearest dealer or write us for catalog.

The Universal Milking Machine Co.,
1303 Mound Street, Columbus, Ohio

A Great Time Saver

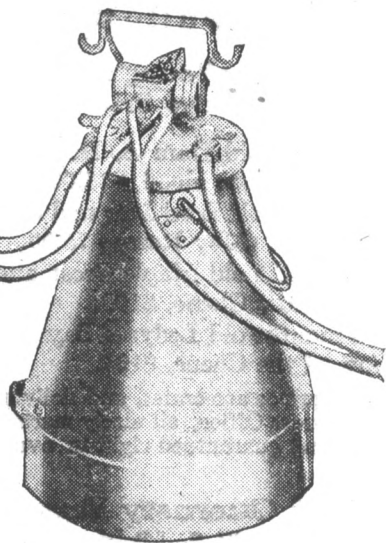
Dear Sirs:—

I have had 8 months' experience with THE UNIVERSAL MILKING MACHINE. I find it very easy to operate, a great time saver and far cleaner than hand milking. The parts are easily cleaned with soap and hot water and by using a solution of B. K. are kept sanitary all the time.

Very truly yours,

O. H. KOCH

Beaver Dam, Wisconsin



"I Cut 27 Cords of Wood a Day"

—says Noah Digge, of Jacksonville, North Carolina, "with my Ottawa Log Saw under unfavorable conditions, and in 52 hours I sold and delivered \$75 worth."

You, too can make big profits with the Ottawa Engine Log Saw. It is always on

the job, and saws from 25 to 40 cords a day. Pays for itself in short time. Takes the backache and worry out of wood cutting. One man does the work of ten. No stopping the engine and no lifting, prying, hacking or twisting to get from cut to cut. Wheels like a wheelbarrow from log to log—easily moved from cut to cut on log.



Beware of
imitations

10 Year
Guarantee
30 Days' Trial

Direct gear to drive saw—no chains to tighten, no keys and no set screws. Automatic friction clutch protects saw, allowing slippage under any pinch. 4-Cycle Frost Proof engine, Oscillating Magneto Ignition. When not sawing demount saw equipment; by pulling one pin, and use engine for all kinds of other work.

Tree Cutting Equipment
Full Information FREE

Write us, now, for full information on this log saw, and on our fast cutting equipment for sawing down trees. Low prices, now, on both outfits.

OTTAWA MFG. CO. 1505 Wood St.
Ottawa, Kansas



"Now you can
saw down trees
and cut up logs
by power."
Geo. E. Long

SOPHIE'S AGNES JUST
BROKE THE WORLD'S
JERSEY YEARLY
BUTTERFAT RECORD

BUFFALO
CORN

GLUTEN FEED

Write to H. CRYSTAL, Selling Representative, 909 Ford Building, Detroit.
for sample, feeding formulas, etc. Who is your dealer?

BUFFALO GLUTEN,
HER GRAIN RATION
WAS ONLY HIGH-PRO-
TEIN FEED SHE WAS FED

ABSORBINE STOPS LAMENESS

from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone, or similar troubles and gets horse going sound. It acts mildly but quickly and good results are lasting. Does not blister or remove the hair and horse can be worked. Page 17 in pamphlet with each bottle tells how. \$2.50 a bottle delivered. Horse Book 9 R free.

ABSORBINE, JR., the antiseptic liniment for mankind, reduces Painful Swellings, Enlarged Glands, Wens, Bruises, Varicose Veins; heals Sores. Allays Pain. Will tell you more if you write. \$1.25 a bottle at dealers or delivered. Liberal trial bottle for 10c stamps. W. F. YOUNG, INC., 1268 Temple St., Springfield, Mass.

Bone Spavin

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

Fleming's Spavin and Ringbone Paste, \$2.08 a Bottle

(War tax paid). One application usually enough. Intended only for established cases of Bone Spavin, Ringbone and Sidebone. Money back if it fails. Write for FLEMING'S VEST-POCKET VETERINARY ADVISER. It is FREE.

FLEMING BROS., 252 Union Stock Yards, Chicago, Ill.

Blu-Bar Hog Feeders

There is absolutely no waste to the Blu Bar Line of Hog and Chick Feeders. It will pay you to investigate the Blu Bar Line before you buy. Write for descriptive literature and prices.

The BLU BAR MFG. CO.,
Sycamore, Ohio.

Please Mention The Michigan Farmer When Writing to Advertisers

BREEDERS' DIRECTORY

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

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

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

ABERDEEN ANGUS

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

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

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

WILDWOOD FARMS

ORION, MICHIGAN

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

WOODCOTE ANGUS

Established in 1900.

TYPE—QUALITY—BREEDING

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

A few bulls (no females) for sale

WOODCOTE STOCK FARM, Ionia, Mich.

Cloverly*Angus, 5 cows with calves, rebred; 2 bred cows;
1 two year old, 2 yearling heifers. Price \$2800. 6 year-
ling bulls, \$225 each. Geo. Hathaway & Son, Ovid, Mich.

Guernsey Bulls Cheap

Have Four Young Bulls
at Attractive Prices

One 3 weeks old Dam A. R. stock
and May/Rose blood, \$75.00.

One 3 weeks old Lord Mar and Gold-
en Secret (May Rose) \$75.00.

One 2 months old Maple Crest and
Gov. of the Chene, \$100.

One 4 months old Ledyard Bay and
Gov. of the Chene, \$125.

Above prices are crated and delivered
to Express Office, all nicely marked
straight and guaranteed right in every
way.

Hicks' Guernsey Farm
Saginaw, W. S. Michigan

GUERNSEYS

196-368 These figures
represent the
average butter fat production
of a grade herd in
Minnesota before and after
the use of a pure bred
Guernsey bull. The im-
proved herd brought
the owner prosperity—the
original, only druggery.
Write to breeders for de-
scriptions and prices and
send for our free booklet,
"The Grade Guernsey."
The American Guernsey
Cattle Club, Box 135, Pe-
terboro, N. H.

REGISTERED GUERNSEYS

Young bulls of quality for sale,
backed by generations of large produc-
ers. All tuberculin tested. Come and
look them over.

AVONDALE STOCK FARM,
WAYNE, MICH.

Registered Guernseys

Two choice two year old Guernseys bred—\$500.
J. M. WILLIAMS, North Adams, Mich.

REGISTERED GUERNSEYS

2 bulls, 2 bull calves. Priced to sell.
F. E. ROBSON
Room 307, M. C. R. R. Depot, Detroit, Mich.

Guernsey Bull For Sale

Bennie of the Ridge No. 41837. His dam is Trixy of
the Ridge B. F. 53738 in class E. E. Granddam Abbie of
Riverside 51812 B. F. Champion Guernsey cow of Mich-
igan. Herd of federal and state accredited list.
E. J. SMALLIDGE, Eau Claire, Mich.

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

Oct 23, 1919 Oct. 23, 1919

Howell Sales Co., of Livingston County

SIXTH ANNUAL SALE

At Sale Pavilion on Fair Grounds, Howell, Mich.

85 Head of Registered Holsteins 85

Sale will Begin at 10:30

A large per cent of these cattle are fresh cows and heifers, or cows
and heifers soon to freshen. Among the female offerings is a 29-lb. cow,
two 24-lb. cows, several from 22 lbs to 24 lbs, a daughter of a 32-lb. cow; a
daughter of a 29-lb. cow, a daughter of a 25-lb. cow, and a daughter of a
21-lb. two-year-old. We will sell six young bulls from dams up to 27 lbs. and
sired by better than 30-lb bulls.

Our reference sires are the very best bulls in Michigan, being from
dams with records of 28 lbs. up to 45 lbs.

All cattle over six months of age tuberculin tested.

COL. J. E. MACK, Auctioneer. S. T. WOOD, Pedigree Expert.

Catalogs Ready Oct. 10th.

JAY B. TOOLEY, Sec'y, HOWELL, MICH.



The Bell Cow for Profit

Jersey Cows don't eat merely to live, but to produce the richest quality
of milk from the smallest amount of feed. They are the money-makers.
Any breeder will tell you that a dollar's worth of feed goes farther
and yields a greater return when fed to a Jersey. Jersey Milk averages
6.37% butterfat. Jersey Milk, Jersey butter and Jersey cheese bring the
biggest prices on the market.

JERSEYS

Breeders will tell you that the Jersey is the Prize-Prize-Profit breed. Let us tell
you why the Jersey is the investment cow! Write for free literature about Jerseys.

THE AMERICAN JERSEY CATTLE CLUB

322-M West 23rd Street

New York, N. Y.

An Institution for the benefit of every Jersey owner

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

WANTED good producing Guernsey or Holsteins and
L.T.P.C. or Duroc Jersey hogs, state prices
and records. ANNA KONTNY, R. 2, Decatur, Mich.

Guernsey Bulls for sale from 2 months old to year-
lings at prices that you can afford.
A. HATT & SON, Napoleon, Mich.

\$75 gets 1 1/2 mo. old gldn Maplecree Korn. Heng. and
27 lb. daughter of Johan Heng. Lad. and 18-48 lb.
daughter of Cal. Jane Paul A. Dam is my best milk-
er. Terms: M. L. McLAULIN, Redford, Michigan.

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

The Traverse Herd

We have what you want in BULL CALVES, the
large fine growthy type, guaranteed right in
every way. They are from high producing A.R.
O. ancestors, Dam's records up to 30 lbs. Write
for pedigrees and quotations, stating about age
desired.

TRAVERSE CITY STATE HOSPITAL
Traverse City, Mich.

"Top-Notch" HOLSTEINS

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

McPherson Farms Co., Howell, Mich.

"Winwood Herd"

REGISTERED
Holstein - Friesian Cattle

Sire in Service

FLINT MAPLECREST BOY

His sire is Maplecrest Korndyke Hengerveld. His
three nearest dams each over 30 lbs. of butter in 7
days. His dam and granddam both made over 1232 lbs.
of butter in one year. It is the yearly cow we are
looking for to deliver the goods. Flint Maplecrest
Boy's Dam is Gluck Vassar Bell, 30.57 lbs. of butter
in 7 days and 121 lbs. in 30 days. Her butter fat test
is 5.27. We have a few choice bull calves about ready
for service and one or two ready. Remember we are
breeders and not dealers in cattle. Our price is right,
breeding considered. Write us your wants, or come
and look this herd over before you buy, and see for
yourself. You will be glad you came. Herd tuberculin
tested.

JOHN H. WINN, Inc.

Lock Box 249, Roscommon, Mich.

Reference Roscommon State Bank.
Registered Holstein heifers bred to a double grand
son of the great May Echo Sylvia 41 lbs. butter and
006 lbs. milk in 7 days. C. H. Giddings, Gobleville, Mich.

REGISTERED HOLSTEIN

bulls from A. R. O. Dams.

SINDLINGER BROTHERS
LAKE ODESSA, MICHIGAN

PUBLIC SALE

Tues. Oct. 21, 1919

Six (6) miles N. W. Parma

Registered Holsteins: 1 heifer 2 yrs. old due to
freshen Nov. 22, 1 heifer 8 mos. old, 1 heifer 4
mos. old, 1 bull 5 mos. old.

Registered Angus: 2 cows 3 yrs. old one due to
freshen Dec. 15, other bred Aug. 10, one
heifer calf born May 10.

6 grade Holstein Cows ages 2 to 6 yrs. all giving
milk, also 8 grade Angus calves.

Farm tools, hay, grain. Free livery from 9 to 11 A.M.

CHAS. KINNEY & SON.

WANTED

a few registered Holstein females—cows
or heifers, or will buy a small herd, for
spot cash. Must be free from abortion
and stand tuberculin test. Please state
full particulars in first letter, as to
prices, ages, herd book numbers and
breeding. No fancy prices. Lock Box
37, Shepherd, Mich.

REGISTERED

HOLSTEINS

Four cows and two heifer calves. Two cows
have A.R.O. records. All well bred along choice
blood lines. Will sell separate or together.

EDWARD L. DILLIAN

Oshkosh, Michigan

THE HOLSTEINS

At Maple Avenue Stock Farm are under Government
supervision. The entire herd have just been tuberculin
tested and not one reactor. A good place to buy that
bull you are looking for, and I have two very fine,
richly bred, and splendid individuals ready for any
amount of service. I want to answer any question
you may ask about them.

L. E. CONNELL, Fayette, Ohio

CLUNY STOCK FARM

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

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

HOLSTEINS of QUALITY

A doz. fine, large cows for sale from three to six years
old. Pontiac Korndyke, and Colantha Fourth-Johan-
na breeding. Also four heifers just being bred to one
of Michigan's best young sires. All have just been
Federal tested.

E. A. HARDY, Rochester, Mich.

\$125 buys choice Reg. Holstein Bull nearly 1 yr. old.
Color, 3/4 white; breeding, Pontiac and King
Segis. Guaranteed. B. B. REAVEY, Akron, Mich.

Registered Holstein: bull calf born Nov. 17, 1918.
A good individual straight and thrifty.
His dam an untasted daughter of a 24 1/2 lb. cow. Sire's
dam has yearly record 92 lbs. butter 1822 lbs. milk at
2 1/2 yrs. of age. W. B. READER, Howell, Mich.

Wah-Be-Me-Me Farms

White Pigeon, Mich.

Holstein-Friesian Cattle

Herd Headed by

Segis Pontiac De Nijlander

A 32 lb. grandson of Michigan's great 35 lb. champion
cow, Pontiac De Nijlander. His dam, Oak Valley
Korndyke Segis Fan, \$2.06, also a Michigan
prize winner on yearly production and a prize winner
in the National Ass'n.
Write for list of bull calves from 18 lb. 2 year olds to
over 30 lb. dams.

For Sale: Jersey bull, Glory's Majesty No.
167066 dropped May 6, 1918. Solid col-
or, black tongue and switch. His sire, Majesty's Oxford
Fox No. 134214. His dam, Noble's Glory No. 301015 Imp.
with a R. M. record of over 400 lbs. butter with first
calf. Will ship C. O. D., no females for sale at present.
Newman's Stock Farm, R. 1, Marlette, Mich.

LILLIE Farmstead Jerseys. A few heifers bred to
freshen this fall, also yearling heifers; and two or
three R. of M. cows. Colon C. Lillie, Coopersville, Mich.

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

Maple Lane R. of M. Jersey herd. Bull and heifer
calves sired by a nephew the new World's
Champion, Sophie's Agnes. Also R. C. Red eggs and
chix. IRVIN FOX, Allegan, Mich.

For Sale Registered Jersey bulls ready
for service and bull calves.
SMITH & PARKER, R. 4, Howell, Mich.

The Wildwood Jersey Farm

Bulls for sale by Majesty's Oxford Fox 134214 and Em-
inent Lady's Majesty 150834, and out of R. of M. Ma-
jesty dams. ALVIN BALDEN, Opaac, Mich.

Jersey Bulls For Sale From R. of M.
Lad-Raleigh-St. Lambert breeding. Meadowland
Farm, Waterman & Waterman, Ann Arbor, Mich.

Jersey Cattle for sale: cows, heifers and
one bull ten months old.
E. A. BRISTOL, Fenton, Mich.

HARWOOD HEREFORDS

Young stock both sexes for sale.

"Keep On 508019" heads the herd. Write us
your wants. Visitors welcome.

JAY HARWOOD, Ionia, Mich.
Farm six miles south of Ionia.

Herefords Polled and Horned blood lines
embrace Fairfax. Polled Per-
fection and Prime Lad Bch breeding. Prices reasonable.
COLE & GARDNER, Hudson, Mich.

Herefords Bob Fairfax 494027 at head of herd.
Stock for sale, either sex, polled or
horned, any age. Priced right. EARL C. McCARTY,
Sec'y. H. B. Ass'n. Bad Axe, Mich.

HEREFORDS: young stock of either
sex for sale.
RALPH S. SMITH, Kewadin, Mich.

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

For Sale Shorthorns of Quality Scotch and
Scotch Topped descendants of Archers
Hope, Avondale, Maxwilton Sulton and White Hall
Sulton. Model Type, by the Oscola Co. Shorthorn
Breeders Ass. John Schmidt, Sec. Reed City, Mich.

BIDWELL SHORTHORNS

For Beef and Milk

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

BIDWELL STOCK FARM

Box B, Tecumseh, Mich.

Richland Stock Farm

SHORTHORNS

HOME OF THE MICH. CHAMPIONS

We offer for sale a few good dual pur-
pose cows with calves at foot. Also
two three year old bulls suitable for
range purposes. We invite inspection.

C. H. PRESCOTT & SONS,

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

Shorthorns Scotch and Scotch Topped cows and heif-
ers, priced right. Come and see them or
write W. B. McQUILLAN, R. 7, Howell, Mich.

Shorthorns New list, 27 bulls; 28 females. Feb. list
all sold. Central Mich Shorthorn
Breeders' Ass'n., Oscar Skinner, Sec'y., Gowen, Mich.

NO STOCK for sale at present. Kent Co.
Shorthorn Breeders Ass'n.
L. H. LEONARD, Sec., Oaledonia, Mich.

SHORTHORNS A young Mary cow and
calf also a young bull for
sale. Louis Bubbitt, Williamston, Mich.

Meadow Hills Shorthorns—For sale females
of all ages, in-
cluding one aged cow at bargain; also one roan bull
ready for service. Geo. D. Doster, Doster, Mich.

MILKING SHORTHORNS Cig
bull calves, Davidson and Hall, Tecumseh, Mich.

Special Offer Shorthorns—Cows \$250 to \$300.
Bulls \$200 to \$250.
Wm. J. Bell, Rose City, Mich.

SHORTHORN BULL CALVES
FOR SALE Chas. Metzel & Sons, Ithaca, Mich.

Milking Shorthorns of best Bates breeding 3
bulls 7 mo. old and 2 heifers
3 and 7 months old for sale. E. H. Kurtz, Mason, Mich.

FOR Sale, Thirty head high grade Shorthorn and
Hereford steers, weigh about 700 pounds. If fed for
spring markets will be money makers. Price \$70 per
head. J. E. GAMBLE, Hart, Mich.

Registered Shorthorns, bulls \$100 and up some
fit for service. Inspection or in-
quiry invited. E. J. Kickerbocker, Homer, Mich.

Milking Shorthorns No stock for
sale.
ROSEMARY FARMS, Williamston, Mich.

NATIONAL SWINE SHOW.

MORE than one thousand five hundred head of hogs from thirty-three states and from Canada were on exhibit at the National Swine Show at Des Moines, Iowa. They were estimated to be worth more than a million and one-half dollars. This was one of the greatest hog shows ever held in the United States.

A special feature of the show was a series of lectures given by authorities from all parts of the United States on swine breeding and raising. Dr. Robert Graham, of the University of Illinois, Prof. L. B. Burk, Bureau of Markets, Washington, D. C., E. J. Russell, Bureau of Animal Industry, Washington, D. C., Prof. Honeycutt, Buenos Aires, South America, Dr. J. S. Kime, Fort Dodge, Iowa, and Prof. W. J. Loeffel, of Lincoln, Nebraska.

Another feature of the show was an exhibit of hams and bacon by the Department of Agriculture, showing the preparations and the proper methods of the home curing of meats.

A debate on the advisability of the United States government's control of the packing industry was a feature that attracted wide interest. W. B. Culver, of the Federal Trades Commission, talked for the government, while L. D. H. Weld, of Swift & Company, pleaded the cause of the packers. An intensely interesting discussion resulted but not much new information was brought to light.

Sales made by exhibitors amounted to about \$250,000 during the sale.

G. H. CONN.

GOOD PRICES AT BUTH BROTHERS' SALE.

THE dispersal sale of the Buth Bros.' herd of registered Holsteins at the Buth Farm north of Grand Rapids, October 1, consisted of sixty head and the proceeds totaled \$44,300, an average of \$738, including the calves. Of the herd fifty-two were cows, heifers and calves and these brought an average of \$812. Eight bull calves brought an average of \$260 each. The highest price was \$3,200 for Lakeside De Kol Queen 2d 217864, a six-year-old cow with a butterfat record of 30.98 pounds per week. She was taken by Elliott G. Stevenson, of Detroit, for a farm he owns in Canada. One four-year-old cow went at \$2,500 and another at \$2,250, and an eleven-months-old heifer calf, daughter of a thirty-pound cow, sold at \$1,725. Four heifer calves under a year, daughters of thirty-pound cows, sold at an average of \$1,494.

Many of the cattle sold were sired by Glen Alix King DeKol, owned jointly by the Buth and Maryland farms. The cattle sold will be shipped to half a dozen states, the West Virginia buyers alone taking about \$10,000. The high prices paid at this sale is very gratifying to the owners and to other breeders of good stock.

The dairy cow must have some reserve constitutional force, for she must be able to resist or throw off disease germs which are so prevalent in many of the stables where sunlight and good ventilation are things unheard of. Constitution, in a large measure, depends upon the room in which the heart and lungs are placed. This part of the cow should be roomy, giving perfect freedom for these organs to perform their functions, as the milk is made by the blood and the blood is purified by the amount of oxygen the lungs may pump from the air. An abundance of nourishing digested food is also an important factor in building up and controlling constitutional vigor. If the human body gets weakened, physicians prescribe a diet of easily digested, easily assimilated food, so it is the business of the feeder to watch his individuals and keep them in a healthful condition.



Producing Animals Need Help.

Your stock have been through a strenuous season and face the unnatural conditions of winter stabling, crowding and winter forage to which domesticity subjects stock. These conditions bring on lagging appetites, susceptibility to colds, blood disorders, worms, bowel and kidney troubles.

Nature demands laxative elements in feed, tonics and blood purifiers to keep stock in tip-top shape to ward off disease. Supply these elements in their winter feed—give them

Dr. LeGear's Stock Powders

Insure sturdy offspring, get normal yield from milkers, have healthy draft stock ready for heavy spring work, get rapid gain on packer stuff by consistent use of these conditioners. • Dr. LeGear's Stock Powders contain Iron for the blood, Nux Vomica for the nerves, Laxatives for the bowels, Kidney Regulators, and Worm Expellers.

Dr. LeGear's Poultry Prescription keeps hens healthy, insures winter eggs and better profits for you.

Dr. LeGear's Antiseptic Healing Powder cleanses, dries and heals sores and cuts quickly.

Dr. LeGear's Lice Killer (Powder) rids your flock quickly of lice, protects chicks, etc.

All of Dr. LeGear's Remedies are sold with a money-back guarantee that they will do all that is claimed for them. Ask your dealer—today. Sold by 40,000 dealers—never by peddlers.

Dr. L. D. LeGear Medicine Company
712 Howard Street, St. Louis, Mo.

Dr. LeGear's Stock Powders

Get New Stock and Poultry Book Just completed. A most comprehensive treatise on the care and treatment of Stock and Poultry. Written by Dr. LeGear after 27 years experience as a practicing graduate veterinary surgeon and poultry expert. Send 10c to us today, — we will mail it postpaid.



Dispersal Sale

Thursday, Oct. 23, 1919
at 10 o'clock

Belgian Stallion, Max du Marias

Belgian Stud Book 3559, Am. Reg. 733. 12 years old, wt. 1900. Winner first prize 5 years in succession Van Buren Co. Fair.

14 Reg. Red Polls

7 cows, 4 heifers, 2 bulls, 7 months and 1 year. Prize winners and high grade stock.

W. J. BROWN & SONS,
LAWRENCE, MICH.

For Sale Several choice young Shorthorn cows and heifers. E. S. Batchelor, R. 6, Howell, Mich.

Dual Purpose bulls of serviceable age. A few cows and heifers left. T. L. MARTIN, R. 1, Ionia, Mich.

Red Polled Bulls For Sale

also cows and heifers. G. A. Calhoun, Bronson, Mich.

HOGS

Berkshires \$25. Early summer farrow. Registered boar pigs, large type, from my mammoth boar. Chas. Stock Farm, Marlette, Mich. quality and breeding. Write for historical pedigree. BURR B. LINCOLN, Harbor Beach, Mich.

Registered Berkshire Boars: ready for service. A few gilts and sows bred for May and June farrow. Also spring pigs. CHASE STOCK FARM, Marlette, Mich.

REG. Berkshire boar past 1 yr. old for \$75.00. Late spring pigs at \$40 each. No sows for sale. B. B. REAVEY, Akron, Mich.

Registered Berkshire boars for sale. Satisfaction guaranteed also Ancona cockerels. Prices right. JOHN YOUNG, Breckenridge, Mich.

For Sale three month old Berkshire pigs eligible for registration. \$30.00 a piece. FAIRMAN FARMS, Plymouth, Mich.

Auction Sale

Of Registered Jerseys

At my farm, At Hadley, Mich.

Sat. P. M., Oct. 25, 1919.

Six cows, 3 to 9 years old, 3 fresh, others soon. Four yearling heifers. Two yearling bulls. Three calves. Also all other farm equipment, as my farm is sold. I am going out of business. Sale easily reached by Auto, or from Goodrich on D. U. R., or from Lapeer. Free Lunch for those from distance.

LEWIS H. RILEY, Prop.

Duroc Opportunity

What would the earning capacity of a Brookwater Boar be in your herd? A mid-west breeder states that the Brookwater boar he used added from \$75 to \$100 to every gilt bred to him. It paid this man to use one of our boars it will pay you.

We have several that we are offering at prices which appeal to the small breeder who must of necessity be a conservative buyer. We have a few that are good enough to be used in high class herds at prices in keeping with their individuality and breeding. Money invested in a good herd boar very speedily increases the value not only of what you sell but what you keep. Send for price list or better, visit the farm.

BROOKWATER FARM, Ann Arbor, Mich.
HERBERT W. MUMFORD, owner,
J. BRUCE HENDERSON, Manager.

DUROC JERSEYS Boars sired by a son of King the Col.
E. D. HEYDENBERG, Wayland, Mich.

FREE DUROCS

To introduce the merits of our pure bred Durocs, we will give the following away.

No. 1. sow pig 8 weeks or over for heaviest pig either sex purchased from us, weight reported at 9 mos. of age.

No. 2. Boar 8 weeks or over for largest order of 8 weeks weanling pigs taken by one customer before Jan. 1, 1920.

No. 3. Gilt bred to farrow for largest order of 6 mos. or over pigs, not less than \$200 before March 1, 1920.

All ages and both sex for sale by Satisfaction 10th 104971 and a grandson of Orion Cherry King. We ship C. O. D. and guarantee satisfaction.

EAGER BROS., HOWELL, MICH.

T.C. Rossman's DISPERSION SALE

of Durocs
MONDAY, OCT. 27, '19

On state road 4 miles north of Oxford or half mile east of Thomas, Mich. Parties coming from a distance will be met at Oxford with auto. Call 1-6F1-2 Bell Phone.

DUROC BOARS ready for service; excellent breeding and individuality. The large growthy kind, also Aug. & Sept. boar pigs, prices very reasonable. RUSH BROS., Oakwood Farm, Romeo, Mich.

DUROC JERSEYS

CAREY U. EDMUNDS, Hastings, Mich.

Additional Stock Ads. on Page 503

LATEST MARKET REPORTS

SECOND EDITION.

The markets in this edition were revised and corrected on Thursday afternoon, October 16.

WHEAT.

The local grain trade is quiet though there is a good shipping demand for wheat. The weather early this week was favorable for marketing the grain, and large receipts are expected during the week. Northwestern markets were reported lower on Wednesday. One year ago No. 2 red sold on the local market at \$2.22. The present Detroit prices are:

No. 1 red	\$2.27
No. 1 mixed	2.25
No. 1 white	2.25
No. 2 red	2.24
No. 3 red	2.20

CORN.

Wednesday opening developed weak corn market. Chicago prices were lower than yesterday and Detroit had a drop of three cents. Corn not coming in freely, and the strike of longshoremen in New York is holding up the export trade. One year ago No. 3 corn was quoted at \$1.30 on the local market. Present Detroit quotations are:

No. 3 corn	\$1.43
No. 3 yellow	1.45
No. 4 yellow	1.43
No. 5 yellow	1.42

OATS.

Oats declined one cent on the local market. Trading is quiet and demand is weak. A year ago standard oats were quoted locally at 72c. Present prices are:

No. 2 white	73
No. 3 white	71½@72
No. 4 white	70½@71

RYE.

This market is off, a decline of 2c on the local market being noted since last Saturday. Cash is now quoted at \$1.38 for No. 2.

BARLEY.

There is nothing new in this deal, with the situation steady at \$2.50@2.60 per cwt for cash No. 3 on the local market.

BEANS.

Bean growers are somewhat at a loss to know how to take the present market. Some are anxious to sell while others figure that conservative marketing is the best policy to follow. Trading is easy at Detroit with the board quoting prompt shipment \$7.10. Domestic consumptive trade is slack, no export business is reported, and speculators are leaving the market alone. In New York choice pea beans are quoted at \$8 per cwt; common to fair \$7@7.75. In Chicago there is very little doing with choice to fancy hand-picked pea beans at \$8@8.25; red kidneys at \$11.50@12.

FEEDS.

Prices are lower as follows: Bran \$43; fine middlings \$69; coarse corn meal \$60@61; cracked corn \$63; corn and oat chop \$53@54 a ton.

SEEDS

Another advance in seed prices is noted. At Detroit prime red clover is quoted at \$31.25; December \$31; alsike \$29; timothy \$5.50.

HAY.

Trading is steady and firm. Detroit quotations are: No. 1 timothy \$28.50@29; standard and light mixed \$27.50@28; No. 2 timothy \$26.50@27; No. 1 mixed and No. 1 clover \$24@25. Pittsburgh.—Timothy is easier and clover firm. Quotations: No. 1 timothy \$29.50@30; No. 1 light mixed at \$29.50; No. 1 clover mixed and No. 1 clover \$31.50@32.

POTATOES.

The movement from the producing states is a little smaller than for Monday, and markets are generally steady, Michigan farmers getting around \$1.50 at warehouses for Round Whites in bulk. The Detroit market is slow with supplies moderate. Michigan round whites are bringing \$3.50@3.75 per 150-lb. sack. In Pittsburgh the market is slow, with Michigan No. 1 stock bringing \$3.65@3.85 per 150-lb. sack. In Cleveland the same stock is quoted at \$3.50 on a weak market. The Philadelphia trade is firm, and Chicago is firm.

BUTTER.

Butter trading is bullish with prices going to higher levels. Several good-sized export orders have been filled the past week. Fancy goods are especially scarce. In Detroit the fresh creamery jobs at 59c, while the fresh creamery, 1-lb bricks sold for 61½@63c; in Chicago at 48@64c; in New York 56½@67c; extra creamery 68½c in Philadelphia.

EGGS.

Fluctuations have occurred the past week but prices are generally firm, with an especially good demand for fancy fresh stock. Fresh eggs are quoted at 49@57½c by the Detroit Butter and Egg Board, while local firms are offering up to 62c for good stock. In Chicago firsts bring 54@55½c; ordinary firsts 45@46c; storage packed firsts 56½@57c. The range for nearby western stock in New York is 83@86c. A firm market obtains in Philadelphia, with western stock bringing \$18@19.20 per case.

WOOL.

The government will hold four wool auctions in Boston, the first to begin November 10. About 25,000,000 pounds are to be sold at the first series. Manufacturers are urgently seeking fine fleeces, which continue to be quoted at 83@84c for fine unwashed delaines; 80@81c for half-blood combing, 70@72c for fine unwashed clothing.

APPLES.

Growers are not complaining much about apple prices. The tendency seems to be toward a steady market, although in Chicago a slight weakening is noted since a week ago. High temperatures have been a hindrance to

the movement of inferior grades. At Detroit various varieties of A-2½-inch are bringing \$7@7.75 and unclassified grades \$6@6.50. Fancy stock is bringing \$7.50@8 in Chicago, and extra fancy Jonathans \$8.50@9.50.

DETROIT CITY MARKET

The Detroit market was short of fruit and vegetables Tuesday morning, with the exception of grapes and potatoes. The market showed the effects of recent frosts, being limited to staple winter vegetables. Apples were plentiful and steady, good No. 1 stock going at \$2@2.75, and fancy \$3@3.50, with windfalls selling at \$1.50 a bushel. Potatoes were in good demand and prices generally range between \$1.40@1.50 per bu; beets \$1; carrots \$1@1.25; cauliflower 75c@1.50; cabbage 75@1; eggplant \$1@1.50; tomatoes \$2@3; green tomatoes 75c@1 a bu; hens 28@30c lb; heavy springers 30c; light do 26c; fresh eggs 56@57c.

GRAND RAPIDS

Potato receipts the past week have averaged 5,000 bushels daily, the greatest per cent coming from Montcalm county. The reason of the long haul is, that buyers at points up state insist on potatoes being graded, and on the Grand Rapids market they do not. Prices at the week end were \$1.20@1.30 per bushel. Apple shippers sent out 24 cars last week from Grand Rapids. Orchardists ask \$2@2.50, orchard run, per cwt. Hubbard squash is quite plentiful and cheap. One grower marketed a ton last week for \$25. Eggs are extremely scarce and dealers bid 53c per dozen for fresh laid. Reports on the crop of turkeys are that it will be below normal in this section of the state. Dealers are bidding 30c per

pound live weight. So far, there has been no frost of a killing nature. The farmers have about everything harvested except potatoes, onions and apples. All corn is in the shock.



Warranted to give satisfaction.

GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.75 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.

FURS

Ship your furs here. Our prices are record breaking high. We pay all your shipping charges on shipments of \$20 and over. On shipments of \$100 and over you get 5% additional and a liberal assortment. Put your own valuation on. We will hold them separate on request. Price list and Trapper Guide sent free on request.

HARRY LEVY 145 W. 25th ST. NEW YORK

The BEST LIGHT

Positively the cheapest and strongest light on earth. Used in every country on the globe. Makes and burns its own gas. Casts no shadows. Clean and odorless. Absolutely safe. Over 200 styles. 100 to 2000 Candle Power. Fully Guaranteed. Write for catalog. AGENTS WANTED EVERYWHERE.

THE BEST LIGHT CO.
280 E. 5th St., Canton, O.

SHIP YOUR HAY

to
Albert Miller & Co.
192 N. Clark St. Room 210,
Chicago, Ill.

Mr. POULTRY FARMER:

We make a specialty of White Henery Eggs and have created a profitable market for your eggs the year around. We pay the highest premium for your Henery Whites—We remit same day shipment arrive.

Ship Often—Ship by Express
GEO. R. ELDRIDGE CO.
494-18th Street, Detroit, Mich.
Remember! We guarantee you satisfaction with every shipment.

For Best Net Results

Ship to
CULOTTA & JULL
Detroit, Mich.
"Enough Said!"

EGGS

We will pay 64c per dozen delivered here for strictly fancy new-laid eggs, cases included. Shipments via express direct from farmers. This price good until October 25th. Watch our price each week.

American Butter & Cheese Company, Detroit, Mich.

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. Cad. 2878

HAY

Ship To The Old Reliable House
Daniel McCaffrey's Sons,
623-625 Wabash Bldg., Pittsburgh Pa.

Live Stock Market Service

Reports for Thursday, October 16th

BUFFALO.

Pigs sold here today at \$14.50 and other hogs at \$15. Lambs brought \$15.50 and calves \$21.

DETROIT

Cattle.

Receipts 2,088. Market steady.	
Best heavy steers	\$12.00@13.00
Best handy wt bu steers ..	9.50@10.50
Mixed steers and heifers ..	8.50@9.00
Handy light butchers	7.50@8.25
Light butchers	6.50@7.00
Best cows	9.00
Butcher cows	7.00@8.25
Cutters	5.50@5.75
Canners	5.00@5.25
Best heavy bulls	8.00
Bologna bulls	7.00@7.50
Stock bulls	6.50@7.00
Feeders	8.00@9.50
Stockers	7.00@8.75
Milkers and springers	65@125

Veal Calves.

Receipts 1,379. Market steady.	
Best	\$19.00@20.00
Others	8.00@17.00

Sheep and Lambs.

Receipts 12,893. Sheep are steady; lambs 25c higher.	
Best lambs	\$14.00@14.50
Fair lambs	11.50@13.50
Light to common	8.00@11.00
Fair to good sheep	6.50@7.00
Culls	1.50@4.50

Hogs.

Receipts 8,487. Market dull and 25c lower.	
Pigs	\$14.00
Mixed hogs	14.25

CHICAGO.

Hogs.

Estimated receipts today are 30,000; holdover 4,669. Market fairly active, mostly 25@40c lower than yesterday. Bulk of sales \$13.50@14.75; tops at \$14.85; heavy 250 lbs up medium, good and choice \$14.25@14.75; medium 200 to 250 lbs, medium, good and choice at \$14.25@14.85; light 150 to 200 lbs, common, medium, good and choice at \$14@14.75; light lights 130 to 150 lbs, common, medium, good and choice at \$13.50@14.25; heavy packing sows 250 lbs up, smooth \$13.50@18; packing sows 200 lbs up, rough at \$13@13.50; pigs 130 lbs down, medium, good and choice \$13.25@14.

Cattle.

Estimated receipts today are 18,000. Market is steady. Beef steers, medium

and heavy weight 1100 lbs up, choice and prime \$17@19.25; do medium and good \$11@16.75; do common \$8.25@11; light weight 1100 lbs down, good and choice at \$14.50@19; do common and medium \$7.75@14.25; butcher cattle, heifers, common, medium, good and choice \$6.25@14.25; cows, common, medium, good and choice \$6@12.50; bulls, bologna and beef \$6.25@10.50; canners and cutters, cows and heifers \$5@6; do canner steers \$5.50@7.75; veal calves, light and handy-weight, medium, good and choice at \$16.75@17.75; feeder steers, common, medium, good and choice \$7.50@13; stocker steers, common, medium, good and choice \$6@10; do cows and heifers, common, medium, good and choice \$6@7.75; do calves, common, medium, good and choice \$7.50@10; western range cattle beef steers, medium, good and choice \$10.75@15.50; do cows and heifers, medium, good and choice at \$7.25@12.

Sheep and Lambs.

Estimated receipts today are 35,000. Market steady to strong. Lambs 84 lbs down, medium, good, choice and prime \$12.50@15.50; do culls and common \$8.50@12.25; spring lambs, medium, good, choice and prime \$9@11.50; ewes, medium, good and choice \$6.25@7.50; ewes, cull and common \$3@6; breeding ewes, full mouths to yearlings \$6.75@12; yearling wethers, medium, good and choice \$7.25@12.75.

BUFFALO.

Cattle.

October 15, 1919. Receipts 20 cars; market is steady; prime steers \$16.50@17; spring steers \$15.50@16; butchers \$10@15; yearlings \$14@15; heifers \$6@11.50; cows \$4@10.50; bulls \$7@10.75; stockers and feeders \$6@10.75; fresh cows and springers \$65@170.

Calves.

Receipts 1,900. Unchanged at \$7@20 per cwt.

Hogs.

Receipts 10 cars. Market is steady; heavy mixed and yorkers at \$15.25; light do \$14.50@14.75; pigs at \$14.25@14.50; roughs \$12@12.50; stags \$9@11.

Sheep and Lambs.

Receipts five cars. Market is strong; lambs \$8@14.50; yearlings \$7@10; wethers \$8.50@9; ewes \$3@7.50; mixed sheep \$8@8.25.

CONFERENCES ENDORSE NATIONAL LIVE STOCK SHIPPERS' FEDERATION.

THE temporary organization of the National Federation of Co-operative Live Stock Shippers held a series of regional conferences. The purposes of the conferences were:

1. To have the active live stock shippers in various sections recommend the men best qualified to serve on the official committee of fifteen, whose duty it will be to meet in Chicago, October 7-8, to perfect plans for a permanent national federation which will be formed in Chicago the first week in December.

2. To find out the desires and needs of the various sections with the ultimate aim of embodying these problems in the National Federation program of work.

3. To make the organization truly democratic by having the actual live stock shippers and farm organizations take active part in its formation.

All of the conferences were well attended by cooperative live stock shippers and others interested, representing fourteen states. Organizing Secretary, E. J. Trosper, Room 906 Royal Insurance Building, Chicago, explained the National Federation purpose and plan of organization.

Following are the resolutions unanimously adopted at these conferences:

Resolved, that we, representatives of Cooperative Live Stock Shippers' interests, endorse the following resolutions adopted at Chicago, Illinois, on August 12, 1919, by the Live Stock Shipping Association delegates representing eight states:

"Whereas, the returns from a general survey of Cooperative Live Stock Shipping Associations throughout the middle west, shows a need, as well as a desire for a stronger affiliation for their mutual protection and benefit, and whereas pursuant to invitation representatives of such conferences were present representing the following states: Minnesota, Wisconsin, Iowa, Illinois, Missouri, Indiana, Colorado, Michigan.

"Therefore, be it, and it is hereby resolved that this conference select a committee of fifteen to be composed of representatives from states having live stock shipping associations, as a body to work for the perfecting of a National Federation of Cooperative Live Stock Shipping Associations."

Resolved, that this conference expresses itself in favor of permanent State Live Stock Shipping Associations as soon as conditions in the various states warrant such organizations, but in order to keep work uniform, the organization of State organizations be postponed until a uniform plan of organization has been perfected.

Resolved, that this conference pledges itself to do all within its power to induce live stock shipping associations to send delegates to the meeting to be held in Chicago, during the International Live Stock Show, for the purpose of perfecting a permanent National Cooperative Live Stock Shipping Association.

Resolved, that this conference expresses itself in favor of a national organization that will look after claims for losses in transit, poor train facilities, and other irregularities in yardage and feed charges, clean pens, adequate yardage, lower insurance rates, needed legislation (state and national) in securing a uniform and equitable freight rate on live stock, working towards stabilizing the market, and carry on educational work to the end that a uniform and efficient marketing system be adopted by the individual shipping associations, and in general coordinating the various shipping associations by securing standard methods of operation, standard accounting systems, improved exchange relations, a general greater efficiency and any other particular lines of improvement which it may see fit to take up.

Resolved, that we heartily approve the plan of holding district conferences, enabling the live stock shipping interests to take part in the selection of the official committee of fifteen and also to assist in the preparation of a program of work.



POWER

A weak heart in the wonderful engine called our body, makes a weak body, and so a spark from a Magneto can make or mar the efficiency of any tractor deriving its power from an internal combustion engine.

The spark from K-W Magneto, is so hot, that when it occurs within a cylinder filled with carbureted gas, the combustion is instant and complete, and full power is assured from every drop of fuel used. This is why a tractor K-W equipped, will show far greater efficiency, power and economy, over the same tractor using other ignition.

The K-W Magneto was built for tractors, and has proven its worth in tractor service covering a period of nine years—when two manufacturers adopted it—until today, when on over 70 per cent of all tractors made, the K-W is standard equipment.

Make sure the tractor you buy is

K-W equipped. It is your insurance against expensive and annoying delays, and a guarantee of service and satisfaction. Write for a list of K-W equipped tractors.



High Tension MAGNETOS

Fire Any Kind of Fuel and Get Maximum Power Out of Every Drop Used

It Does More and Goes Farther Than Any Product Known



Wise Stockmen Everywhere are TIX-TON Users

Tix-Ton ANTISEPTICS

the year around keep stock healthy and free from disease germs, worms, and ticks. A \$5.00 box makes \$60.00 worth of medicated salt, or stock conditioner—saves you big money.

Send \$2.00 for a box of "TIX TON-MIX" by parcel post. It will medicate a barrel of salt. For hogs, sheep, cattle, horses, and poultry.

PARSONS CHEMICAL WORKS, Grand Lodge, Michigan
Leona Park Farms Experiment Station
Write for Club Offer

Save Auto Repair Bills

Every car-owner should learn how to avoid engine and all other auto troubles and how to cure them by reading the "TROUBLE DEPARTMENT" of AUTOMOBILE DEALER AND REPAIRER, a 100-page illustrated magazine, the only journal especially devoted to the practical and mechanical side of motoring. Our EXPERT SERVICE Department is free to all subscribers. You can ask questions and get answers promptly about any difficulty with your car. One article in one number was worth \$25 to one car owner. Send 25 cents stamps or silver for three months' trial subscription to Motor Vehicle Publishing Company, Dept. E. 75 Murray Street, New York. Regular subscription price, \$1.50 per year.

O. I. C. BOARS FOR SALE

One of the Best Herds in Michigan

Big type, growthy boars of all ages. I ship C. O. D., pay express and register in buyer's name. If you want a real choice boar, guaranteed right in every way, write me.

J. CARL JEWETT,

R. 5, Mason, Michigan.

HOGS

DUROC BOARS

of size, quality and breeding. All are sired by State Fair Winners. Come see herd.

NEWTON BARNHART, St. Johns, Mich.

Michigan Farm Durocs. You can't afford to miss seeing our herd before buying breeding stock. Two choice Panama Special years long boars for sale. Choice unrelated pigs at \$50 a pair. Satisfaction guaranteed.

O. F. FOSTER, Mgr., Pavilion, Mich.

DUROC Jersey spring boars sired by Orion Cherry King Col. 2nd. with size and feeding qualities.

W. G. Taylor, Milan, Michigan.

Registered Duroc Boars

We have a choice lot of spring boars, sired by Michigan Cherry Col. No. 11849. Ira Jackson selected this boar to head our herd. Our prices are within every farmer's reach. The Jennings Farms, Bailey, Mich., R.F.D. No. 1

Duroc Jerseys Two good yearling boars that are good enough to head the best herds in Michigan, also spring boars large enough for service. Sired by the Grand and Junior Champion boars.

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

Duroc Jerseys

For sale: spring and fall pigs of both sex.

CHAS. BRAY, Okemos, Ingham Co., Mich.

8734 Hampshires recorded from Jan. 1 to Apr. 1 '19.

Did you get one? Boar pigs only for sale now.

JOHN W. SNYDER, R. 4, St. Johns, Mich.

THE WORLD'S CHAMPION

big type O.I.C.'s. Stock of all ages for sale. Herd headed by Calloway 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 Grandell's prize hogs, Cass City, Michigan.

O.I.C. One very choice 9 months old boar and 8 spring pigs sired by Prandell's Big Bone, (68928), Glenwood Stock Farm, Zeeland, Mich.

O. I. C. and Chester White Swine

Strictly Big Type with quality. Spring pigs of March and April farrow. A choice lot of boars. Will only spare a few more gilts at present. Will ship C. O. D. and record them free.

Newman's Stock Farm, Marlette, Mich. R. No. 1.

O. I. C. 20 Choice Young Boars and a few fine gilts.
Glover Leaf Stock Farm, R. 1, Monroe, Mich.

O. I. C.'s. I will ship C. O. D., pay the express and record free of charge every boar sold in Oct. and Nov. F. C. Burgess, R. 3, Mason, Mich.

O. I. C.'s. A few last spring boars and 15 very choice last spring gilts, also fall pigs from good growthy stock, registered free. Citizens phone 124, 4 mile west of Depot. Otto B. Schulze, Nashville, Mich.

Raise Chester Whites

Like This
the original big producers

I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at 4 months old. Write for my plan—More Money from Hogs.

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

Chester White Boars of quality ready for service. Priced right and shipped on approval. Floyd Banister, Springport, Mich.

POLAND CHINAS

Spring boars and gilts for sale sired by our 1000 lb. boar at 24 months old and their dams weigh 700 lb. These are the best lot of young boars and gilts we have ever raised.

We can furnish pairs and trios not related, inspection invited.

ALLEN BROS.

PAW PAW, MICH.

Boars also sows and pigs. Real Big Type Poland Chinas. Bred big for 25 years. Sired by Mich. Buster by Giant Buster, litter 14 out of Mouw's Miss Queen 2nd, some breeding, also by Butler's Big Joe by Rust's Big Joe, out of a Wonder Queen, nuf said. Write us your wants, we will treat you right, our prices are low.

J. C. BUTLER, Portland, Mich.

When In need of something right good in A. L. T. P. C. boar just come and see or write **W. J. HAGELSHAW, Augusta, Mich.**

LARGE Type P. C. the largest in Mich. Spring boars now ready to ship. Boars for the farmer, and boars for the farmers. Come and see the real large type with quality. Free livery from Parma furnished visitors. Look up my exhibit at the Great Jackson Co. Fair, Sept. 8th. to 12th, expenses paid if not as advertised. **W. E. Livingston, Parma, Mich.**

Big Type Poland Chinas with quality. Pigs for sale by Robert R. 334796, out of Upsome Matron 240346, and by Upsome Lad 30565, out of Eureka Giantess 241028. New herd headed by Bonanza Joe 100992, by Bower's Mammoth Joe 7741. **G. A. BAUMGARDNER, R. 2, Middleville, Mich.**

Sale of Big Type Poland Chinas Nov. 5th

Choice offering of individuals sired by Mammoth Ben, Gerstale Jones, The Clansman, Gerstale King and from dams carrying blood of Big Bob, Giant Ben, King of Wonders, etc. **Wesley Hile, R. 6, Ionia, Mich.**

L. S. P. C. A few good gilts left for September and October farrow.

H. O. SWARTZ, Schoolcraft, Michigan

Big Bob Mastodon Sire is Caldwell Big Bob Champion of the world, his dam's sire was the Grand Champion at Iowa State Fair, Boars' ready to ship. **C. E. Garnant, Eaton Rapids, Mich.**

L. S. P. C. Ten husky spring boars. Well bred and well fed ready to ship.

F. T. Hart, St. Louis, Mich.

For Sale Medium T. P. C. Hogs
All sizes. **J. E. Mygrants, St. Johns, Mich.**

SALE—72 MEDIUM P. C.

All ages. Nov. 12, 1919. **Tony B. Fox, Pewamo, Mich.**

Big Type P. C. Spring Pigs

Either sex. **A. A. WOOD & SON, Saline, Mich.**

Leonards Big Type Poland China boars, all ages fall boar pigs at a bargain, none better. Call or write, **E. R. Leonard, St. Louis, Mich.**

B. T. P. C. Some of the best males I ever raised. Two October Boars extra good. April pigs weight 100 lbs. Price reasonable. **JOHN D. WILEY, Schoolcraft, Mich.**

Miller Meadows, L. T. P. C. Ready to ship immune. None better in Mich. Write or come and see. 2 1/2 miles west of Marshall. **Clyde Weaver, Oerescio, Mich.**

Two gilts for sale, sired by C. A. King Joe. Dam is sired by Great Big Half Ton, by Big Half Ton and out of a Dasher's Giant Sow. (Breeding.) Bred to Monster Big Bob by Luken's Big Bob (same breeding as the Grand Champion of the World, Caldwell's Big Bob). A very valuable litter to possess. Fall pigs farrowing now. Book orders early. **C. A. Boone, Blanchard, Mich.**

Big type Poland China boars for sale. Sired by Big B. Giant No. 267567 O's Orange No. 330123 and Reish's Col. Jack No. 322507. **L. L. Chamberlain, Marcellus, Mich.**

Large Type Poland Chinas for sale; something good in spring boars; write or see them; free livery from Manchester. **A. A. Feldkamp, R. 2, Manchester, Mich.**

LARGE TYPE

Poland China springs pigs.

E. H. EISELE, Manchester, Mich.

Big type P. C. Choice spring boars from Iowa's greatest herds out of 1000 lbs. sire and mammoth sows; big boned fellows. **E. J. Mathewson, Burr Oak, Mich.**

FOR SALE

P. C. April pigs either sex.

ARMSTRONG BROS., R. 3, Fowlerville, Mich.

Big Type Poland Chinas. Sired by Smooth Masto don litter mate to the Ill. Grand Champion. The big boned, deep long bodied kind at farmer's prices. **Wah-be-me Farms, White Pigeon, Michigan**

Fairview Stock Farms Tamworths. Registered spring pigs for sale, either sex, from massive ancestors. **W. H. Warner, Concord, Mich.**

REGISTERED YORKSHIRES

from imported strains. Hatch Herd, Ypsilanti, Mich.

HORSES

Percherons, Holsteins, Angus, Shropshires, Durocs

DORR D. BUELL, Elmira, Michigan.

Percheron Stallions and mares at reasonable prices; inspection invited.

F. L. KING & SON, Charlotte, Mich.

Sheep ads will be Found on Page 482



How to read the Chart

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "BB"
Gargoyle Mobiloil Arctic

TRACTORS

The coming of Uniform Methods

GARGOYLE
ELL

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil Arctic

AUTOMOBILES	1916 Models		1917 Models		1918 Models		1919 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Allen	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Auburn (4 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Auburn (6-30) (Torco-H)	Arc.	A	Arc.	A	Arc.	A	Arc.	A
Auburn (6-30)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Autocar (1 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Bentley (8 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Buick	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Cadillac (8 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Case Chalmers	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (6-40)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Chandler Six	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chevrolet	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Cole	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (8 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Cunningham	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Dart	Arc.	Arc.	A	Arc.	A	Arc.	A	Arc.
" (Model C)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Dodge Brothers	A	Arc.	A	Arc.	A	Arc.	E	E
Dort	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Federal	Arc.	Arc.	A	Arc.	A	Arc.	A	Arc.
" (Model S-X)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Federal (special)	Arc.	Arc.	A	Arc.	A	Arc.	A	Arc.
Fiat	E	E	E	E	E	E	E	E
Franklin	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Grant	Arc.	Arc.	A	Arc.	A	Arc.	A	Arc.
" Com'l	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (Model 12)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Haynes	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (12 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Hudson Super Six	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Hupmobile	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Kelly Springfield	A	Arc.	A	Arc.	A	Arc.	A	Arc.
King	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" Commercial	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Kissel Kar	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (Model 40)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (12 cyl.)	Arc.	Arc.	A	Arc.	A	Arc.	A	Arc.
Lexington	Arc.	Arc.	A	Arc.	A	Arc.	A	Arc.
Lippard Stewart	Arc.	Arc.	A	Arc.	A	Arc.	A	Arc.
" (Mod.M.W.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Locomobile	A	E	E	E	E	E	E	E
McFarlan	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Madsen	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (8 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Marmon	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Maxwell	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Norton	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (33-70)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Mitchell	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Moline-Knight	B	A	B	A	A	A	A	A
Monroe	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (Mod. M4)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Noah	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (Mod. 671)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (Quad)	Arc.	Arc.	A	Arc.	A	Arc.	A	Arc.
National	Arc.	Arc.	A	Arc.	A	Arc.	A	Arc.
Nelson	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Oakland	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (8 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Oldsmobile (4 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (8 cyl.)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Overland	Arc.	Arc.	A	Arc.	A	Arc.	A	Arc.
Packard	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" Commercial	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Paige	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (6 cyl.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (6-18-30)	A	Arc.	A	Arc.	A	Arc.	A	