

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
PUBLISHED WEEKLY
ESTABLISHED 1843.

VOL. CLVII No. 9
Whole Number 4163

DETROIT, MICH., SATURDAY, AUGUST 27, 1921

ONE YEAR \$1.0
FIVE YEARS \$3.0

Making a Stand of Potatoes

By I. R. Waterbury

AS the rain falls on the just and the unjust alike, so are the other weather handicaps no respectors of persons. But the unfavorable weather conditions at planting time affected my potato crop prospects even worse than was the case with most farmers in the neighborhood, for the apparent reason that the methods followed in storing and preparing the seed were not so good under the peculiar seasonal conditions which prevailed. This is so clearly demonstrated by the results secured that the knowledge thus gained should prove interesting and perhaps profitable to many Michigan Farmer readers, as also may the resulting experiment in making a stand of potatoes under the discouraging conditions which were confronted.

With a view of getting a better strain of

"Petoskeys" I purchased fifty bushels of seed from one of the most successful potato growers in the county who had for several years been cooperating with the college in testing different varieties and strains of seed, which experiments I had watched with much interest. The seed purchased was run-of-crop tubers from an excellent crop which was practically free of disease of any kind and of fine quality. I got them home during the early spring and put them in the cellar for a few weeks, when they were moved to the barn and spread out thinly on the floor some three weeks before planting time. Thirty bushels of hill-selected seed of my own growing was also put on the floor at the same time. Just before planting

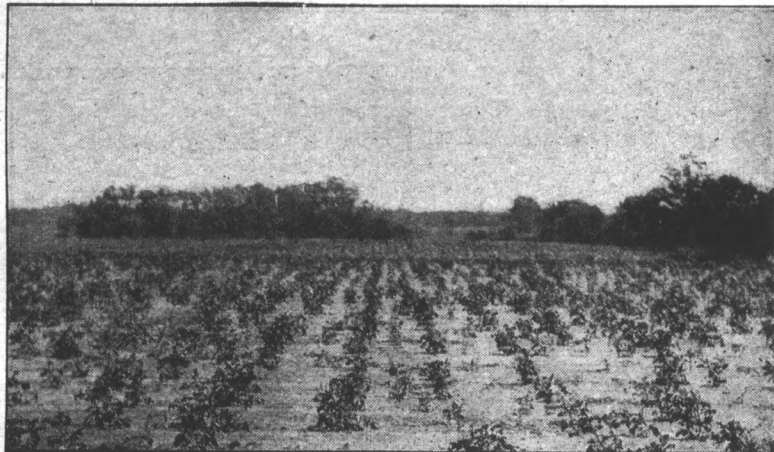
the seed was treated and cut in the usual way.

Owing to the fact that this was run-of-crop seed, too large to work well through a horse-planter, the crop was planted with hand-planters, for the first time on my farm in several years. This was mistake number two, as observation seems to clearly show that fields planted with horse-planners made a better stand on the average than those planted with hand-planters this year.

On this account the hills were rowed both ways to facilitate clean cultivation, as this did not entail any great additional work, the space between the rows being much narrower one way of the field to get a sufficiently thick stand and still facilitate the use of a horse-digger in harvesting the crop. This fact made (Continued on page 178).



Looking Down the Rows of the "Composite" Stand of Potatoes on the Editor's Farm.



Looking Crosswise the Rows Are the Second Planting and the Straggling Plants of the First.



Corn After Alfalfa on the Editor's Oakland County Farm.



Field of Hubam Clover in Full Bloom on the Editor's Farm.



Published Weekly Established 1843 Copyright 1921

The Lawrence Publishing Co.

Editors and Proprietors

1634 LaFayette Boulevard Detroit, Michigan

TELEPHONE CHERRY 3384

NEW YORK OFFICE-95 Madison Ave.
CHICAGO OFFICE-111 W. Washington St.
CLEVELAND OFFICE-101 E. 1013 Oregon Ave., N. E.
PHILADELPHIA OFFICE-261-263 South Third St.M. J. LAWRENCE President
PAUL LAWRENCE Vice-President
J. P. CUNNINGHAM Treasurer
F. H. NANCE SecretaryI. R. WATERBURY Associate Editors
BURT WERMUTH
ALTA LAWSON LITTLE L.
FRANK A. WILKEN

I. R. WATERBURY Business Manager

TERMS OF SUBSCRIPTION

One Year, 52 issues \$1.00
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

55 cents per line (agate type measurement, or \$7.70 per inch (14 agate lines per inch) per insertion. No advertisement inserted for less than \$1.65 each insertion. No objectionable 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 CLXIV. NUMBER NINE

DETROIT, AUGUST 27, 1921

CURRENT COMMENT

Crop Yields
and
Prices

THAT there is a direct and close connection between crop yields and market prices for farm products is a matter of common knowledge. But the exact, or even the approximate relation between these two factors is a subject for speculation rather than of knowledge. We know that when there is a big visible surplus of any foodstuff, prices go down rapidly and sometimes so far that the grower scarcely gets pay for marketing the product, to say nothing of receiving cost of production. On the other hand, when there is a very short crop which falls considerably below the normal demand for domestic consumption, prices may go up just as rapidly and return the grower a fair profit in addition to the cost of production, even on the short crop. This is particularly true of perishable products which cannot be carried over into another season, but it is in large measure true of all farm products. But the normal ratio of price fluctuation to crop yield is an unknown quantity, with little available in the way of reliable data upon which to base an intelligent estimate.

We know, as a matter of experience, that price fluctuations resulting from variation in crop yields are much wider than the seasonal variation in yield. It would sometimes appear that price variation is in geometrical progression as compared with arithmetical progression in the variation of crop yield. There are, of course, many other factors which influence price levels, such as general business conditions, the extent of unemployment, etc., but the effect of these factors could be better calculated if the normal relation between crop yield and market price under normal conditions were better known. In this connection, our readers will be greatly interested in the announced plans of Professor Friday, recently elected president of the Michigan Agricultural College, to collect all possible data upon which to base an analysis of the relation between crop yield and market price, of various farm products, beginning probably with potatoes which promise a short crop this year. This will be pioneer work in agricultural economics which should bear profitable fruit to the farmers of Michigan. It will be a practical application of economics to agriculture which is needed all along

the line and which promises much for our agricultural industry under the leadership of a sound economist such as President Friday.

More
Profitable
Farming

ONE of the fundamental questions which the farmer has to determine is the scale upon which he will carry on his farming business. Usually the individual farmer finds this question settled for him by the limit of his ability to finance, or by the size of his farm, or both. However, it is generally possible for the capable farmer to increase the scale of his operations by renting additional fields if he is in no position to own enough land for himself. The question is, then, what is the most profitable size farm for the diversified farming business?

There is little detailed information bearing upon this question. Perhaps the best data are the facts gathered by Professor Warren in New York state where conditions are quite similar to those obtaining in Michigan. There it was found in somewhat extensive surveys that in general farming the man with more than one hundred acres has a better chance to make a satisfactory income than does the farmer with less acreage. On the larger farms labor, horse or tractor power, machinery and capital are employed to better advantage than is usually the case on the smaller farm. Of course, no hard-and-fast lines can be drawn between large and small farm

operations, for the truck gardner with ten acres will require far more labor than the general farmer with two hundred acres or more, and is, from a business point of view, a larger farmer than the average hundred-acre man. However, in general farming the one-hundred-acre farm apparently marks the dividing line between the small and large classes.

It is interesting to note how these findings of the economists are being worked out in practical farming. The last census figures shows that the sizes of farms in Michigan are working toward the more economical units. While the number of farms have decreased from 206,960 in 1910, to 196,447 in 1920, the acreage of improved land in these farms has increased from 12,832,978 acres in 1910 to 12,926,241 acres in 1920. Then again, the number of farms under twenty acres has decreased fourteen per cent during the decade under consideration; the number between twenty and forty-nine acres decreased eighteen per cent; the number between fifty and ninety-nine acres, three per cent, while the number between one hundred and one hundred and seventy-four acres increased four per cent, and the number between one hundred and seventy-five and four hundred and ninety-nine acres increased five per cent, and the number ranging over five hundred acres grew seven per cent. Thus it would appear that, consciously or not, the laws of economy are being generally followed by the rank and file of our farmers.

M. A. C's. New President

PROFESSOR DAVID FRIDAY was elected president of the Michigan Agricultural College by the State Board of Agriculture at its regular August meeting, held last week. He will assume charge of the college on or about January 1, 1922, after he has completed the work in which he is now engaged for the Joint Agricultural Commission of Congress. Dean Robert



David Friday, Newly Elected President of M. A. C.

S. Shaw, of the agricultural division, was named acting president ad interim, and retiring president Frank S. Kedzie was made dean of the new division of applied science.

President Friday was born on a farm in southwestern Michigan. His father died before the boy reached his teens, after which he stayed on the farm with his two brothers, now among the most successful farmers and fruit growers in the state. Until he reached the age of twenty-nine he remained actively interested in farming, dividing his time between the farm in summer, teaching country schools, reading law and taking a preparatory course at the Benton Harbor College. He entered the University of Michigan as a stud-

ent in 1905 and graduated in 1908, when he was made instructor in economics at that institution, in which capacity he served until 1911, when he became professor of economics and accounting. In 1916 he was made professor of economics in the New York University's School of Accounting and Finance, and later headed the department of economics in that institution in 1917 and 1918. In 1919 he returned to the University of Michigan as professor of economics and finance, in which capacity he has since served.

President Friday's outstanding ability as an economist attracted wide attention early in his career, and he has been called upon to do a great deal of public work in this capacity. Back in 1911 he served as statistician for the Michigan Commission of Inquiry into Taxation. Later in the same year he was appointed by Attorney-General Grant Fellows to assist in the Duluth, South Shore & Atlantic Railroad rate case. In 1914 the Michigan Railroad Commission asked him to assist in the Pere Marquette Railroad rate case. In 1918 he was appointed advisor to the treasury department of the United States in matters bearing on war taxation. In this capacity he prepared estimates of national taxable income, revised excess profits schedules and drew up schedules of luxury taxes. He has also served as advisor of the New York Trust Companies' Association committee on taxation. He was president of the Michigan State Tax Association in 1917. He is now a director of the National Bureau of Economic Research.

Last winter he was called upon by Governor Groesbeck to investigate the tax situation in Michigan and prepare a report on the best method of meeting the financial emergency with which the state was confronted. He is now serving as economic advisor to the Joint Agricultural Commission of Congress and as economist for the American Farm Bureau Federation.

In addition to keeping up his work at the University and meeting the constant outside public demands upon

his time, President Friday has found time to write extensively on economic subjects. These broad activities and attainments at the age of forty-five are remarkable evidences of his industry as well as his keenness of intellect, which appealed so strongly to agricultural leaders in the state that he was strongly indorsed by the executive committees of the leading farmers' organizations of the state, including the State Farm Bureau. President Friday will bring to the college the full inspiration of his natural vigor, and broad economic training, which with his background of actual farm experience is practical insurance of his success in directing the activities of the college along lines of the greatest possible usefulness and benefit to the farmers of the state.

News of the Week

Wednesday, August 17.

REPEAL of the excess profits tax is delayed a year.—Over 19,000,000 are without food in Russia.—Former Governor Ferris marries Miss Elsie McLeod, of Indianapolis.—A receiver is appointed for the Detroit Times.—Premier Briand of France, notified President Harding that he would attend disarmament meeting.—Congress passes resolution to admit aliens who sailed before June 8 but were barred because of percentage restriction bill.—General Pershing says that citizens training camps have been very successful this year.—An export company gets charter from Ottawa, Canada, to export booze to the United States.—Prof. David Friday, of the University of Michigan was elected president of the Michigan Agricultural College, to assume duties January 1.

Thursday, August 18.

GENERAL Motors Company cuts prices on all trucks.—Peter, King of Serbia, died of pneumonia.—Government rifle ranges at Camp Custer have been turned over to the Michigan National Guards without cost.—Mrs. Mellette, aged 105, the oldest person in the upper peninsula, died at Escanaba.—New York chorus girls want name of occupation to be changed to "refrain girls."—Sharon, Pa., steel mills renew activities.—Russian Soviet government has abolished prohibition and put country on light wine basis.

Friday, August 19.

SECRETARY of Treasury permits Canadian liquor to pass to United States.—The confessions of one of its members has revealed a large number of murders caused by the Italian camorra gang.—McClure's magazine is placed in the hands of a receiver.—The Moros of the Philippine Islands desire American rule, while the Filipinos want independence as soon as possible.

Saturday, August 20.

A KU KLUX KLAN takes over the Lanier University in Atlanta, Ga.—Veterans of foreign wars in Detroit urge world peace.—Chicago police department rules that the police cannot travel beats in autos.—Government officials destroy a moonshine village on the Ogeechee River, Georgia.—The New York health department find that drug addicts doubled in the last three years.—A Hammond, Indiana, peddler sues autoist for \$10,000 for running into his three-legged horse and breaking wooden leg.—Convicts at Sing Sing are permitted to wear silk shirts if they have them.

Sunday, August 21.

THE farmers of Saginaw county need harvest hands and steady farm help.—The Canadian government grants charters to two more companies to export rum.—Masked men order the coal miners in Indiana to quit work.—The field marshal of the Austrian army during the war is now a cigar dispenser.—Michigan farm values jump nearly sixty-two per cent in ten years, according to government figures.—A gale at Camp Grayling levels tents.—"The Republic of Ireland" has an office in Munich, Germany.

Monday, August 22.

THREE steel plants at Chicago resume operations.—Beautiful Bokhara rugs, 12x18 feet, are sold on the Russian market for \$20.—Nine hundred miners intend to march to Mingo county, West Virginia, as a demonstration against the martial law in force there.—The world's largest ship, the Majestic, will carry 5,200 people and its deck area amounts to seven and a half acres.—Fruit growers in Ontario, Canada, find that girls are better packers and sorters than men.

The Value of a Farmers' Curb Market

As Demonstrated at Ann Arbor and as Told by Charlotte Burd

FOR years conditions have shown that marked changes were essential in the prevailing wasteful methods of distributing foodstuffs.

In some sections of Michigan the fruits and the vegetables have been bought up so completely by jobbers that the population of the local communities have been obliged to buy such products from the local grocers, with the profits of the jobber, the commission merchant, and the grocer, and the added expense of at least two transportations added to the original price. And none of the processes have added in the least to the good quality of the foodstuffs handled.

And this is not all. Sometimes in a plentiful year, in order to create a scarcity and raise the price of foodstuffs, hundreds of acres of potatoes and large quantities of apples, after having been bought up by the jobbers, have been deliberately allowed to rot, for nobody had the right to harvest these needed crops but those who had paid for them. So potatoes and apples both went up in price. So common is this practice that it has received the name of "welshing."

In Ann Arbor the grocers have been closely organized in their effort to force a high uniform price for all food commodities. The farmer or small grocer who did anything to interfere with this plan, was coerced into submission by threats of the blacklist. The farmer faced trade ostracism and the small grocer other equally unpleasant consequences.

One grocer of this combination was appointed chief. Every evening by telephone he ordered the fruit and vegetables for the grocers' combination from some distant city commission house and every morning, before the beginning of the business day, he informed the other members of the league what prices they were to ask for that day. So important did the telephone service become between the

head grocer and the distant commission house, that it paid the telephone company to install an independent line for their special accommodation.

Thus, however high the prices were, the consumer had no choice but to pay or go without, because the price was uniform at all the stores.

Under these irritating conditions the consumers grew restless and patronized the mail order houses, and the farmers were hampered in every way in dealing directly with the city consumers. Still to no great extent would the grocers buy their products. It was so much easier to order everything

directly from the city commission house than to dicker with individual farmers.



Where Producers and Consumers Meet in Ann Arbor.

directly from the city commission house than to dicker with individual farmers.

While the farmers would have been glad to sell their small fruit for almost anything and the housewives were eager to get it at reasonable prices, the consumers were obliged to pay the grocers their prices for just such small fruit. Naturally, the discouraged farmers plowed up their berry patches and the housewives' fruit cans remained unfilled. No berries were bought except for immediate use.

The leading housewives of Ann Arbor were not slow in gauging the situation and discussing remedies. They made two or three attempts to organize independent markets, where the farmers and housewives could meet and deal directly with each other. But the grocers also were alert and their activity never flagged. For the estab-

lishment of such a market the permission of the municipal government had to be secured. The majority of the city council was made up of loyal friends of the merchants, and because of this influence it was hard to get a market started.

At length, however, a mayor came into power who could see the situation from the standpoint of the housewives and he grasped the fact that the interest of the housewives was identical with that of all the rest of the consumers. He opened an army store on his premises which was crowded by grateful patrons. Publicity given this

served to educate the public mind on new marketing possibilities. The next attempt of the housewives to establish a curb market succeeded. It was announced that on a certain morning a curb market would be tentatively opened on a certain street beside the courthouse, where farmers might sell their produce directly to housewives. The housewives brought this about, under the auspices of the community services and the movement was headed at the community house.

On this first morning the outlook was not especially promising. There were only a few wagons or trucks and not many more buyers, and the prices named appeared almost higher than those of the grocery stores. But this only showed that the farmers and consumers had not yet become acquainted with each other. However, the venture was pronounced a success and it was announced that the curb market

would be held at the same place every Wednesday and Saturday morning from eight to ten. All the produce offered by the farmers was attractively fresh and the farmers' generous weights and measures quickly reconciled the buyers to what had at first seemed to them to be rather high prices. The farmers' quarts and pecks were heaped up and then, in many cases, a handful or more put into the buyers' baskets for good will. Who had ever heard of anything like this since the good old days of yore!

After a few meetings of the curb market, a standard of weights and measurements was adopted and scales set up, so that any dissatisfied buyer could have his purchases officially weighed and measured. There is no report that this convenience was ever seriously needed, unless to protect some farmer from his own generosity. A committee also established maximum prices for each market day.

For the patrons it was found wise to go early to secure quality, and late for special bargains. Towards the end the farmers were in a hurry to get back home and often made considerable sacrifice as to prices.

Of course, there had to be a director of the curb market, a man who knew enough about farm products to make him worth good compensation. To defray this and other extra expenses, a tax of fifteen cents was levied on each wagon or truck offering produce.

One immediate effect of the curb market was to reduce the prices in the stores. But such reductions were likely to apply only on market days while on other days the old prices prevailed.

Notwithstanding the curb market, the grocery stores continued to do a flourishing business and this nobody begrudged them. Though the patrons of the curb market numbered on an average more than a thousand a day, (Continued on page 178).

Make Farm Machinery Do Double Duty

CONSERVATION" is the watchword of the United States today.

Conservation has always been the aim on a certain farm in Berrien county. A description of one or two little "saving" devices which have been in satisfactory use for the past five years may be of some assistance to those who are now, more than ever, feeling the need of getting more service out of their farm machinery.

The illustration shows one side of the engine house on this particular farm. In the center is the gasoline engine, to the left, the air-compressor tank and belt to the dynamo, the corn-sheller and feed grinder on the right. At the extreme left one corner of the well-pit is visible. On the opposite side of the room are the storage batteries and a work-bench.

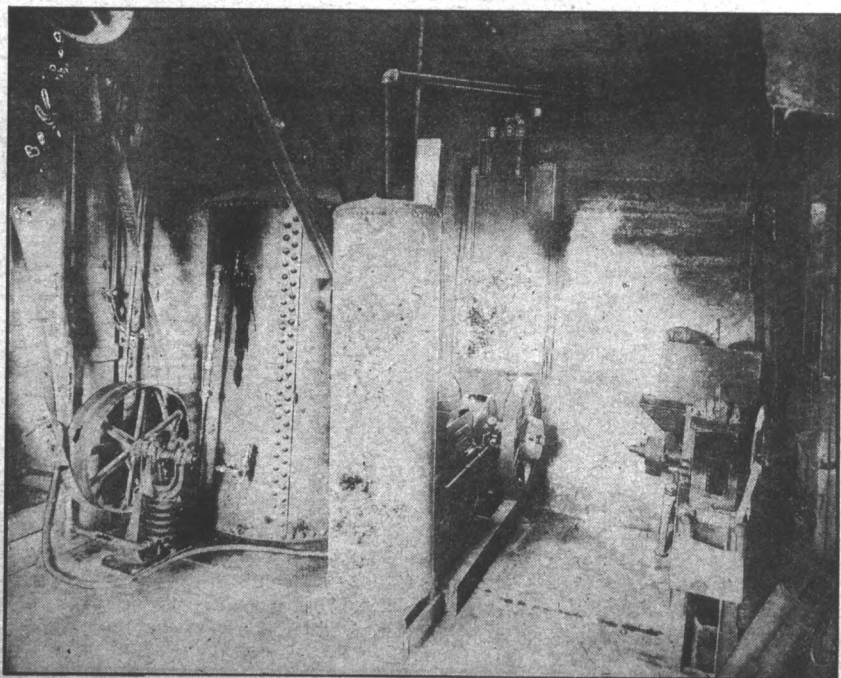
The five horsepower engine is run for half an hour night and morning. It is capable of filling the air-compressor, running the dynamo, which charges the batteries for a thirty-five-light electric plant, and shelling and grinding corn all at the same time. The air-compressor furnishes the motive power for an air-pump in the six-inch well, supplying fresh water, direct from the well, for all parts of the farm, including three residences. In this system there are four fully equipped bath-rooms, three kitchen sinks, two laundry tubs, and various out-door faucets for lawn-sprinkling. Four residences, the barn, engine-room and henhouse are electrically lighted. The

owner's house is installed with electric iron and washing-machine. The motor for the latter also runs the churn.

The well, which is over ninety feet deep, overflows during the greater part of the year. And at all times, the exhaust from the air-pump throws a small stream of water into the pit. This surplus water is piped to the henhouse, where it flows through a cement trough. This trough is built

along the front of the house, just beneath the windows, and is of the proper height to make it easily accessible for the hens. It runs the entire length of the house and is connected at the farther end with a pipe which carries the water off beyond the yards. A stiff brush is used to clean the trough, making it possible for the hens to have plenty of cool fresh water at all times without any trouble to the poultry-keeper.

The photograph shows a galvanized tank set in front of the engine. This was a hot water tank, discarded because of a small leak. During the winter the tank is connected with the engine in such a manner that the exhaust enters it below, leaves it at the top, passing through a pipe leading along the ceiling, down the wall and thence through the wall to the rim of the horse trough outside. There the pipe is connected with a rectangular frame of gas-pipe which rests on the floor of the trough. An elbow over the rim permits the exhaust to escape into the air. When the engine is running there is sufficient heat generated by the exhaust and radiated from the tank to raise the temperature of the room to a degree which prevents the water in the storage batteries from freezing, and also warms the drinking water for the cattle. By this simple device a waste product is made of practical use—which is carrying "conservation" to its highest efficiency.



A Well-equipped Farm Engine House.

Michigan Potato Growers' Exchange

Delegates Gather at Cadillac for Third Annual Meeting

THE unanimous adoption of the resolutions to establish their own marketing service, and to affiliate with the Michigan State Farm Bureau were outstanding features of the third annual meeting of the delegates of the Michigan Potato Growers' Exchange at Cadillac, August 17-18.

Significant, too, was the fact that at the close of a most discouraging year the one hundred and nineteen authorized delegates from associations through which a total of millions of dollars' worth of farm products has been handled, assembled and painstakingly transacted the various items of business and returned home without the usual bickering and strife occasioned so frequently by such gatherings. Nothing would be farther from the truth than to say that there were no differences of opinion. For there were, and these opinions were well crystallized through practical experiences. But the men are cooperators and they are learning how to work together. They know that mutual effort is worth to them many times more than the carrying of a point about some secondary matter.

The Potato Business in the Empire State.

The potato industry of New York state where one-tenth of the spuds grown in the country are produced, was reviewed by K. C. Livermore, the president of the newly-organized New York Potato Growers' Exchange. Climatic conditions ranging from the two-hundred-day season of the Long Island farmers, to the short season of the St. Lawrence districts and the whole gamut of marketing problems presents a maze of complex situations difficult to meet. Intensive culture based upon the generous use of green manures and commercial fertilizers prevails in the vicinity of the world's metropolis while extensive growing is popular in the outlying districts.

The growers of the Empire State are now devoting their efforts to the establishment of a potato growers' exchange after the style of the Michigan organization. Mr. Livermore came to the Cadillac meeting for information on how best to build their organization.

Secretary Brody Speaks.

In his straight-from-the-shoulder address, Mr. Brody, secretary of the Michigan State Farm Bureau, stated that he thought in all sincerity, a mistake had been made by not seeking the advice of the five or six big cooperative organizations then existing in the state for guidance in shaping the State Farm Bureau organization. It is unwise, he said, to build an economic institution contrary to economic law. The attempt to organize the County Farm Bureau into a business organization is not in line with the best thinking and is not working out well. The county unit is necessary to carry on the original plans of the farm bureau, but it should be kept within its field according to Mr. Brody.

Much stress was given to local organization. The local, said the state secretary, is the foundation on which cooperation is extended. No large cooperative institution will succeed unless supported by active locals having sane, intelligent and progressive memberships. Not for a moment should these local units be lost sight of. It was his opinion that the strong community associations made possible the success of the Michigan Potato Growers' Exchange.

Then these local units should be organized into groups according to the line of work each is doing. These groups then handle through special-

ists, the products which they were created to market. If cooperative work in Michigan was completed after this plan we would then have the Potato Exchange to sell the farmer's potatoes, the Elevator Exchange to sell his grain and seed, the Live Stock Exchange to market his cattle and to buy feeders for him, the Fruit Growers' Exchange to dispose of the fruit products, the Milk Producers' Association to contract the dairy products, etc.

Each of these exchanges should also have a representative on the board of directors of the Michigan State Farm Bureau, in the opinion of Mr. Brody, and these representatives would then be able to coordinate their work and arrange to perform through the State Farm Bureau the duties common to all exchanges. Under this head would be the traffic department, the purchasing of general farm supplies, the seed department, the wool pool, educational and promotion work, etc. With such an organization it is possible to have every line of work in the hands of those who are directly concerned and peculiarly qualified to handle the particular products in the largest possible volume.

This is the plan after which the work of the farm bureau and the other cooperative agricultural organizations of the state is being shaped, and the wisdom in following this plan is testified to by the fact that the State Farm Bureau never was in better shape than it is at this time.

Coordination of Work Emphasized by Mr. Tennant.

The next speaker, Mr. Hale Tennant of the agricultural college, continued along the line of argument followed by Secretary Brody. The advantage of the commodity plan of marketing is that those who are financially interested in that commodity determine how the marketing shall be handled. The growers run their own business. A dairyman is not called upon to decide how the fruit crop shall be handled, nor vice versa. But to take care of side-line products or those produced in small amounts outside of one's special line, reciprocal arrangements between the different exchanges will provide the full facilities of the whole battery of exchanges to the members of any one of them.

Students and practical farmers alike have long ago decided that without question improved marketing conditions can only come through cooperative effort. If this be true every farmer should have as his first aim the protection of his cooperative. After he has done his best to place good men in charge of the work he should then give the organization the advantage of selling the crops he has for sale. In other words, he should dispose of crops through the cooperative organization rather than through some private concern even though he can make a small margin after paying the association the assessment agreed upon for selling to outside concerns. This gives the manager of the association a greater volume of products and it is only when the man in charge has volume that he can do his best for the membership. The cooperative should be in a position to make delivery after orders have been secured.

Directors Elected.

Other addresses filled with much of interest to the potato growers were given during the course of the sessions and will be touched upon in a later issue. The election of officers for the ensuing year resulted in the choice of Earnest Snyder, of Lakeview, and the re-election of Fred Smith of Elk Rapids, to the board of direct-

ors. The other members of the board are Henry Curtis, A. B. Large, C. A. Wood, H. F. Baker and Oscar Weirich. The constitution was amended to provide for a surplus fund of \$50,000 and for the employment of other cooperative organizations for the selling of products.

General Manager Makes Report.

All listened closely to the report of General Manager A. B. Large. The following points were made: On August 1, 1920, the exchange boasted ninety-seven affiliated cooperative associations of which eighty-seven were shippers of potatoes, while on August 1, 1921, the number had increased to 119 member associations of which 108 shipped potatoes. The potatoes handled by these associations during the past season totaled 3,259 carloads, as against 2,160 for 1919-20, an increase of fifty per cent. The shipments went to 390 customers in seventeen different states.

In addition to the potatoes handled the Exchange sold other commodities in carload lots as follows: Apples, 56 carloads; grain, 160; hay, 69; onions, 38; celery, 17; straw, 13; beans, 11; plums, five. According to Mr. Large, operating expenses have been proportionately less than for the preceding year.

He emphasized the need of building up a good reputation for the "Chief Petoskey" trade-mark, which can be done by putting a strictly high grade of potatoes in sacks containing this brand. Competition has been stronger the past year due to increased activity of speculators. The average prices received for the several months of the past year are as follows: September, \$1.832; October, \$1.609; November, \$1.74; December, \$1.218; January, \$0.941; February, \$0.81; March, \$0.872; April, \$0.598; May, \$0.522; June, \$0.441.

Mr. Large believes that considerable improvement has been made in the methods followed by local managers and boards of directors. However, there is much yet to be desired along this line, and efforts should be made for standardizing, as far as possible, the methods of doing business, and also to so extend the work of each local that it may be in a position to ship a maximum of products and thereby reduce overhead cost. Railroads have exhibited a spirit of cooperation and have been prompt in settling claims. While the year has been one of exceeding difficulty, due to the long decline in prices, the results show the soundness of the principles underlying the practices of the Exchange and also demonstrate that the members of the various locals are each year becoming more appreciative of their organization and are working harder to make it succeed.

Purchasing Department Report.

Declining prices have been the bug-a-boo of the purchasing agent of every type of industry the past year. This has been no less true of farmers' organizations according to R. A. Wellman, manager of the purchasing department of the Potato Exchange. Small sayings, however, have been affected in several lines.

During the year, the organization has been recognized as a jobber by the coal, paint, feed, twine, salt, fencing, and insecticide industries. Prompt payment of bills has been instrumental in establishing close and harmonious relations with manufacturers and large operators. Some lines are difficult to handle because of the lack of warehouse facilities.

For the year ending August 1, the department shows a loss of \$2,005.37.

This, however, includes a net loss carried over from the previous year of \$4,088.99. It would appear, therefore, that on a year's business alone that the department has made a net gain of \$2,083.62.

Indiscriminate purchasing was given as the cause for many losses by locals. The absorption of losses from handling supplies, by earnings from shipping potatoes is poor practice and if supplies cannot be handled on a self-supporting basis, they should be cut out altogether, was the position taken by Mr. Wellman.

He advised cooperation with the Michigan Elevator Exchange to the end that all grain of both organizations be handled by the elevator men and all shipment of potatoes be placed in charge of the Potato Exchange.

Resolutions Adopted.

The following resolutions were unanimously adopted by the delegates present:

Resolved, that the Michigan Potato Growers' Exchange request the board of directors to take such action as is necessary to secure a minimum tariff of three cents per pound on potato flour.

Would Affiliate with State Farm Bureau.

Resolved, that the delegates assembled commend and approve the action on the part of the board of directors in affiliating with and working out reciprocal relations between the Michigan Potato Growers' Exchange and the Michigan State Farm Bureau, and that the board of directors of the Michigan Potato Exchange is requested to extend a permanent invitation to the secretary of the Michigan State Farm Bureau to appear at board meetings at any time to submit and discuss matters pertaining to the mutual interests of the two organizations.

Suggests the Establishment of its Own Sales Service.

Whereas we, the delegates, representing the local associations of the Michigan Potato Growers' Exchange believe, in view of our three years' experience in the cooperative marketing of potatoes and the favorable reputation which the Exchange now has with the trade, and

Whereas, the coming season with a prospective short crop and high prices will make for a sellers' market and corresponding ease in the disposition of the crops, therefore, be it

Resolved, that the time is now ripe for the Exchange to establish its own direct selling service under the absolute control of the Exchange and for the elimination of all middlemen, agencies and expense, and in the light of the best judgment of the board of directors it is suggested that a sales manager be employed on a straight salary basis and such other arrangements be made as are necessary to the establishment of the best possible sale service.

The fourth resolution extends to E. Harvey Wilce, whose untiring service has been invaluable in placing the Exchange on its present sound basis, a position as honorary member of the board of directors.

Banquet tables were filled to overflowing on Wednesday night, when the exchange gave a free banquet to delegates and visitors. Professor Tennant acted as toastmaster under whose capable guidance an unusually interesting and entertaining program was rendered.

The president of the board of directors, Mr. Baker, presided at the various business sessions.

HIGHWAY AID BILL PASSED.

THE Townsend federal aid highway bill appropriating \$75,000,000 for road construction, was passed in the senate last week. It divides the federal funds between interstate and market roads and is satisfactory to the representatives of the state highway officials. The power of administration is left with the bureau of roads in cooperation with state officials.

Danish Cooperative Societies

(The Second of a Series of Articles on Farming in Europe)

By Nicholas Rabild

IT is only a few days since I had the pleasure of showing a Michigander something of Denmark and he was good enough, unsolicited, to remark, that the Danish farmers were way ahead of the American. I wish to impress that upon you right here, because only a few days ago another American boasted a cow, an American cow, which had yielded 29,400 pounds of milk in three hundred and sixty-five days. Now, no normal cow milks three hundred and sixty-five days a year and a Danish pound is ten per cent bigger than an American pound. The figures that I am going to give you do not concern the sporting record of a single cow in a single year of three hundred and sixty-five days and regardless of cost of feeding, but the records of the average cow in a milking year for a number of years and with a very necessary regard for the cost of the imported feed, compared to the market price of butter, and the home-grown feed raised on a soil, that an American farmer would not stoop to look at. Such records must necessarily be vastly different and cannot be used for sporting, but are good for living purposes.

But let me commence with the organizations of the Danish farmers. The oldest of these organizations, the Royal Agricultural Society, was first established in 1769, seven years before the declaration of the independence of the United States, and as we proceed you may possibly find that the Danish farmers are so organized that it borders on over-organization. Besides this, the oldest organization, comprising the whole country, a Danish farmer may be a member of:

1. Local Agricultural Society; Small Holders' Society; Danish Farmers' Association; Farm Accounts Society.
2. Horse-breeding Association; Cow-breeding Association; Pig-breeding Association; Sheep-breeding Association; Poultry-raising Association; Goat-breeding Association; Cow-testing Association; Breeding Society; Tuberculin Society.
3. Cooperative Dairy; Cooperative Bacon Factories; Cattle Export Society; Egg Export Society; Cooperative Sales Society for Live Stock; Cooperative Potato Flour Factory; Cooperative Sugar Factory (beets).
4. Supply Association or Cooperative Store; Feeding-stuff Society; Artificial Manure Supply Society; Cooperative Coal Supply Society; Danish Cooperative Cement Work; Cooperative Marling Society.
5. Seed Cultivation Society; Potato Cultivation Society; Grassfield Section; Sugar Beet Cultivation Society; Chicory Cultivation Society; The Danish Health Society; Plantation Society.
6. Live Stock Insurance Society; Hail Insurance Society; Fire Insurance Society; Insurance Against Accidents; Insurance Against Damage by Storm.
7. Danish Cooperative Bank; Short-loan Society; Credit Society.

But that is not all. There are: Electric Generator Societies; Waterworks; Cooperative Mills; Cooperative Bakeries; Cooperative Sawmills; Horticultural Society; Fruit Cultivation Society; Cooperative Fruit Sale Society; Beekeepers' Association; Society for Agricultural Lecture meetings.

As under one hat all the following associations are organized under the Agricultural Union, which is a general representation of the main organizations of Danish agriculture, viz.:

- 1.—The Royal Agricultural Society.
1. The bureau for agricultural excursions.
2. Administration of some of the activities of the agricultural experts.
3. Practical education of young people on farms.
4. Extended education of dairymen and maids.
5. Control of grain, feedingstuff, etc., in the freeport.
6. Distribution of awards.

II.—The Associated Danish Agricultural Societies.

1. Provincial organizations. Total agricultural societies, 137; number of members, 114,484; live stock shows; lectures; field experiments; local agricultural experts; cooperation with cow-breeding societies, horse-breeding societies, cow-testing societies, etc.

III.—The Central Cooperative Committee of Denmark.

1. The associated Danish cooperative bacon factories.
2. The central organization of Danish dairy associations.
3. The Danish cooperative egg export.
4. The associated Danish cattle export societies.
5. The associated Danish cooperative butter export societies.
6. The cooperative wholesale society.
7. Jutland Cooperative Society for Purchase of Feedingstuffs.
8. The Island's Cooperative Society for Purchase of Feedingstuff.
9. The Funau Cooperative Society for Purchase of Feedingstuff.
10. Ring Jobbing District Society.
11. Danish Cooperative Manure Supply Society.
12. Danish Cooperative Cement Works.
13. Danish Cooperative Coal Supply Association.
14. The Danish Cooperative Bank.

Those who have had patience enough to read through the foregoing summary, picturing the imposing network of organizations, mostly cooperative, that have such a tremendous share in the successful development of that highly industrial work, which Danish agriculture is, cannot fail to ask themselves, whether such organizations do not wield any political influence and the answer must be, that such is indeed the case. The development of this structure of organization has entailed in former years the recognition of the Danish farmer as the equal of anybody within the body politic, but in the newest times they have made front to the other side and with the simple expedient of refusing to ship food to centers too much affected with bolshevism put the house in order in a few days. On the other hand, it must be said, that so far their power has not been abused. What the future may bring is, of course, another question, but I have a profound respect for, and confidence in, the common sense of the Danish farmer.

Just now the debate is perhaps a trifle acrimonious between the farmers and industry. Remember, now, that ordinarily ninety per cent of the exports are agricultural products and ten per cent industrial. Everything is going under high pressure and then, bump, comes the peace. The decline of the German mark takes a more headlong course and the dumping of German wares commences. The German mark is now but one-tenth of its pre-war value and as a consequence the German laborer can live for one-fourth of what the Danish laborer can. Naturally Danish industry stops, naturally there is lots of Danish industrial unemployment, naturally Danish industry asks Danish agriculture, if it is not better to put a higher duty on imports in order to keep people employed, than it is to support the unemployed, which agriculture in the main has to do. For in a country so highly civilized as Denmark there are, of course, no soup kitchens but everybody out of work without being his own fault (for instance, strikes, lock-outs), is supported until he gets work again. Likewise if he is sick. But so far agriculture has not been able to see it that way. So far they have preferred to let the dumping take the gas out of wages and the government seems to agree.

Real Motor Economy Begins with Better Oil.

En-ar-co
SCIENTIFIC REFINING
MOTOR OIL

THE OIL OF A MILLION TESTS

Don't — **DON'T** — abuse your motor by using a poor or ordinary grade of oil. It's expensive—it's inefficient—it's ruinous. The very best oil you can buy is none too good for your motor and it is cheapest in the end.

En-ar-co is the very highest quality of motor oil possible to make. The many refining processes through which the crude oil passes—the method of distilling and redistilling, of filtering and re-filtering, of testing and retesting, precludes any possibility of impurities, carbon or coke-like substances in the finished product.

And so En-ar-co Motor Oil lubricates thoroughly, evenly, constantly. It saves wear on bearings and parts; it reduces engine trouble to a minimum and cuts

down repair and upkeep expense. It makes your motor a better motor, with more life, "pep" and a will to do.

Ask your dealer for En-ar-co Products. If he can't supply you don't accept substitutes, but send direct to us. The coupon can be used as an order blank.

Prices subject to change without notice

En-ar-co Motor Oil

Light—Medium—Heavy—Extra Heavy

Wood barrels.....	per gallon	\$.80
Wood half-barrels.....	per gallon	.85
Steel drums.....	per gallon	.80
Steel half-drums.....	per gallon	.85
10-gallon cans.....	per gallon	.95
5-gallon cans.....	per gallon	1.00
1-gallon cans.....	per gallon	1.15

En-ar-co Gear Compound for gears, differentials and transmissions. White Rose Gasoline, clean, uniform, powerful. National Light Oil (Kerosene), for tractor fuel, also for lamps, stoves and incubators.

FREE INTERESTING AUTO TOUR GAME. Here's "the game that's never tame." Interests both old and young. Fill out coupon and send today.

THE NATIONAL REFINING CO., F-703 National Bldg., Cleveland, Ohio
NATIONAL HEADQUARTERS 4 Modern Refineries—92 Branch Offices

EN-AR-CO—Auto Game FREE!

The National Refining Co., F-703 National Building, Cleveland, Ohio
Enclosed find 2-cent stamp to partially cover postage and packing. Send En-ar-co Auto Game. I have never received an En-ar-co Game.

My name is..... St. or R. F. D. No.....

Postoffice..... County..... State.....

I own a..... My Dealer.....
(Auto or Tractor)

located at..... cannot supply me. Quote prices on, or ship at once:

.....gallons White Rose Gasoline.gallons National Light Oil.lbs. Black Beauty Axle Grease.
.....gallons En-ar-co Motor Oil.lbs. En-ar-co Gear Compound.gallons En-ar-co Valve Oil.

You Wouldn't Buy a Pony for Draft-Horse Work

If you were buying horses for draft work, you would have no use for light-weight, under-sized teams. You would want strong and rugged horses, deep-chested, strong-limbed, with plenty of weight to throw into the collar and stay with the load. You would never buy ponies for draft-horse work.

WATERLOO BOY KEROSENE TRACTOR

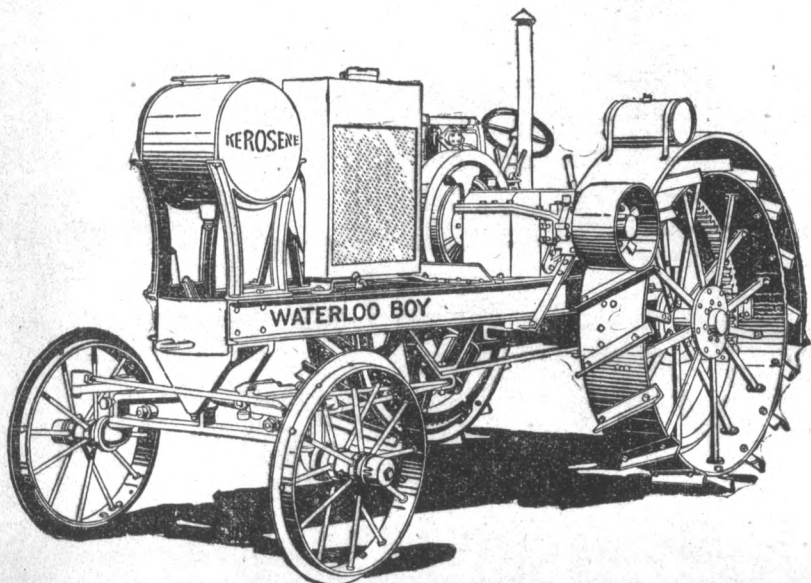
Remember that a tractor in its most important jobs has to do heavy-duty work continuously, often under difficult conditions. In plowing, in disking, at any drawbar job, the footing is uncertain, the going rough. But the load is always there, testing the tractor's stability every second. It is a load that a light-weight, low-powered outfit often cannot stand up under. It is a load that takes rugged construction and plenty of "brute power."

Use the same good judgment in buying your tractor that you did in

buying your horses—get a Waterloo Boy. It has the power, the rugged construction, and the stamina to handle the load, day after day, week after week, year after year.

Inspect the Waterloo Boy at your John Deere dealer's. Have him demonstrate it for you on your own farm. Drive it yourself. It will do your work as you want it done.

A post card will bring you our big free booklet fully illustrating and describing the Waterloo Boy. Write to John Deere, Moline, Ill., and ask for booklet T-922.



JOHN DEERE

THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

Best Wire Fence On the Market Lowest Price—Direct to User

Not hundreds of styles
Nor millions of miles,
But satisfied smiles
From every customer.

Bond Steel Post Co.
16 Maumee Street Adrian, Michigan

KITSELMAN FENCE

Get It From the Factory Direct
PRICES REDUCED June 1st.
We Pay the Freight and save you money. Direct from Factory to Farm. Mr. C. F. McIndoo Lyons, Ind. writes: "My fence arrived O.K. Like it fine. Saved 24¢ a rod by buying of you." You can't afford to buy fence until you get our Big Free Catalog showing 100 styles and heights of farm and lawn fence, gate, etc. Write today.
KITSELMAN BROS. Dept. 278 Muncie, Indiana.

HOLDEN Spreader

SPREADS 16½ FT.
handles wet or dry lime, phosphate and fertilizer. Haul direct from car to field. Saves time and labor. FREE folder. Low price—write.
The Holden Co., Inc. Peoria, Ill. Dept. 42

CUT DITCHING AND COST TERRACE



Make your time and dollars count big now. I have shown farmers in every state how to put their land into shape to produce big crops at low cost. Let me show you. Drain level land, save waste, boggy and washed land too.

Use the Low Cost Farm Ditcher Terracer and Road Grader

THE Martin
O.D. & G. CO.

All-Steel—Reversible—Lasts Almost a Lifetime
Cuts a V-shaped open-drain, irrigation or tile ditch down to 4 feet. Cleans old ditches. Builds farm terraces, dikes, levees, and grades roads. Works in any soil—wet or dry.



Sold on 10 Days' Free Trial
Get the whole big money-saving offer in my free Drainage, Irrigation and Terracing Book. Special Introductory Offer now.
OWENSBORO DITCHER & GRADER CO., Inc.
Box 415 Owensboro, Kentucky
Model 20

Making a Stand of Potatoes

(Continued from first page).

possible the experiment in making a stand of potatoes on this field which is illustrated in the accompanying cuts.

The "fancy" seed which had been treated as above noted was planted first as far as it would go, the balance of the field being planted with seed taken directly from the cellar. The crop was planted on or about June 25, which was a few days later than had been intended, owing to the hope that more suitable weather might come. The soil was in excellent condition for planting.

Some ten days after planting a careful examination of the seed in the hills showed it to be rotting so badly that on the portion of the field first planted not more than a quarter of a normal stand could possibly result. The portion of the field planted with our own hill-selected seed was some better, with half a stand possible, while that portion planted with seed directly from the cellar seemed to be coming fairly well with prospects of fully eighty per cent of a normal stand, which was fully up to the average in the neighborhood.

Right there we got busy in an attempt to make a stand of potatoes in this field. We had enough seed to replant the worst part of the field, and proceeded to plant it in the same thickness as before, planting in a hill between each hill in the rows one way of the field. This second planting was finished the eighth day of July, and the planting was immediately followed with a cultivation, using a wide-shovelled cultivator and throwing the dirt over the rows just as what plants survived of the first planting were coming up. This deeper covering proved to be beneficial, and the plants grew more rapidly after they came up, so that at the time the photographs were taken, on August 6, there was very little difference in the size of the plants from the two plantings.

One of the illustrations shows the present stand as it appears looking down the rows in this replanted section of the field. The other cut shows the appearance of the stand crosswise of the present rows. The thicker rows this way of the field are the second planting and the straggling plants between them are what survived from the first.

What the outcome of this experiment will be is, of course, problematical. With a favorable fall for maturing a late-planted crop it will undoubtedly be profitable. I will take more photographs of the crop later in the season and report the success or failure of the experiment in these columns. Aside from the possible results at harvest time the better appearance of the field as a result of making a fairly good stand of tubers out of an exceedingly poor prospect is a worth while compensation for the effort, and with anything like a normal fall the present prospects are that the labor expended in the effort will be a most profitable investment.

Corn After Alfalfa.

While foreign to the title of this experience article I cannot refrain from giving a little character testimony for my old friend alfalfa. The corn shown in the illustration on the first page was planted on an alfalfa sod. It promises a very heavy crop, due in no small part to that fact. It is an interesting observation on the fertilizing value of this legume to note that in a few low places where alfalfa had been killed out the plants lack something of the rich, dark green color characteristic of a corn plant which has enjoyed an abundant and well balanced ration of nitrogen in the soil is a continuous process with the alfalfa plant, making

it a better soil improver as well as a better hay producer than other available legumes.

"Hubam After Alfalfa."

The other illustration is from a photograph of a field of "Hubam," the new annual sweet clover, which I am growing for seed, in full bloom. One man who has seen practically every field of this crop growing in the state was kind enough to say that it was the best he had seen. This plant is said to be a host plant for the same nitrogen-fixing bacteria which form the root nodules on alfalfa, and I attribute not a little of the successful growth of this crop to the fact that this field has been in alfalfa and is thus thoroughly inoculated with this bacteria.

In my judgment, alfalfa would prove a good friend to very many more Michigan farmers if they would get better acquainted with its habits.

THE ADVANTAGE OF STACKING GRAIN.

RECENTLY a test was conducted on shocked-threshed and stacked grain which had been grown in the same field under the same conditions. The shocked grain was threshed as usual, while the stacked grain was allowed to stand for six weeks. The tests were then made on fifty bushels of each kind of grain. The shocked grain tested nearly fifteen per cent moisture, weighed fifty-five and a half pounds per bushel and graded number two on the market. The stacked grain had only a little more than thirteen per cent moisture, weighed fifty-nine pounds per bushel and graded number one.

Seedmen and growers of pure-bred grain also are practically unanimous in their agreement upon the advisability of stacking. This is rather significant and their experience must be considered valuable.

THE VALUE OF A CURB MARKET.

(Continued from page 175).

other thousands of housewives could not or would not get out so early in the morning and continued to telephone for their daily supplies.

The experiment of the curb market has proved highly satisfactory in Ann Arbor to both farmers and consumers. The farmers appreciate the opportunity to sell their fruit and vegetables on a local market. This includes not only their first rate produce, but the windfall fruits at reduced prices. For years the latter had been a total loss, because the jobbers would not buy them and the consumers could not get them. And for immediate use the housewife was glad to buy them. Another advantage to both sides was that at the curb market a farmer was able by fair dealing to build up a following of customers for the winter months, when the weather would be too cold for an out-of-door market.

One great advantage to the housewife of the curb market was the freshness of products. This in itself was worth a higher price. But instead she paid lower and not higher prices. Not the least advantage was the farmers' generous measure. In a grocery store five or six big peaches can be so arranged as to pass for a quart, while many farmers gave ten or twelve such peaches for less money.

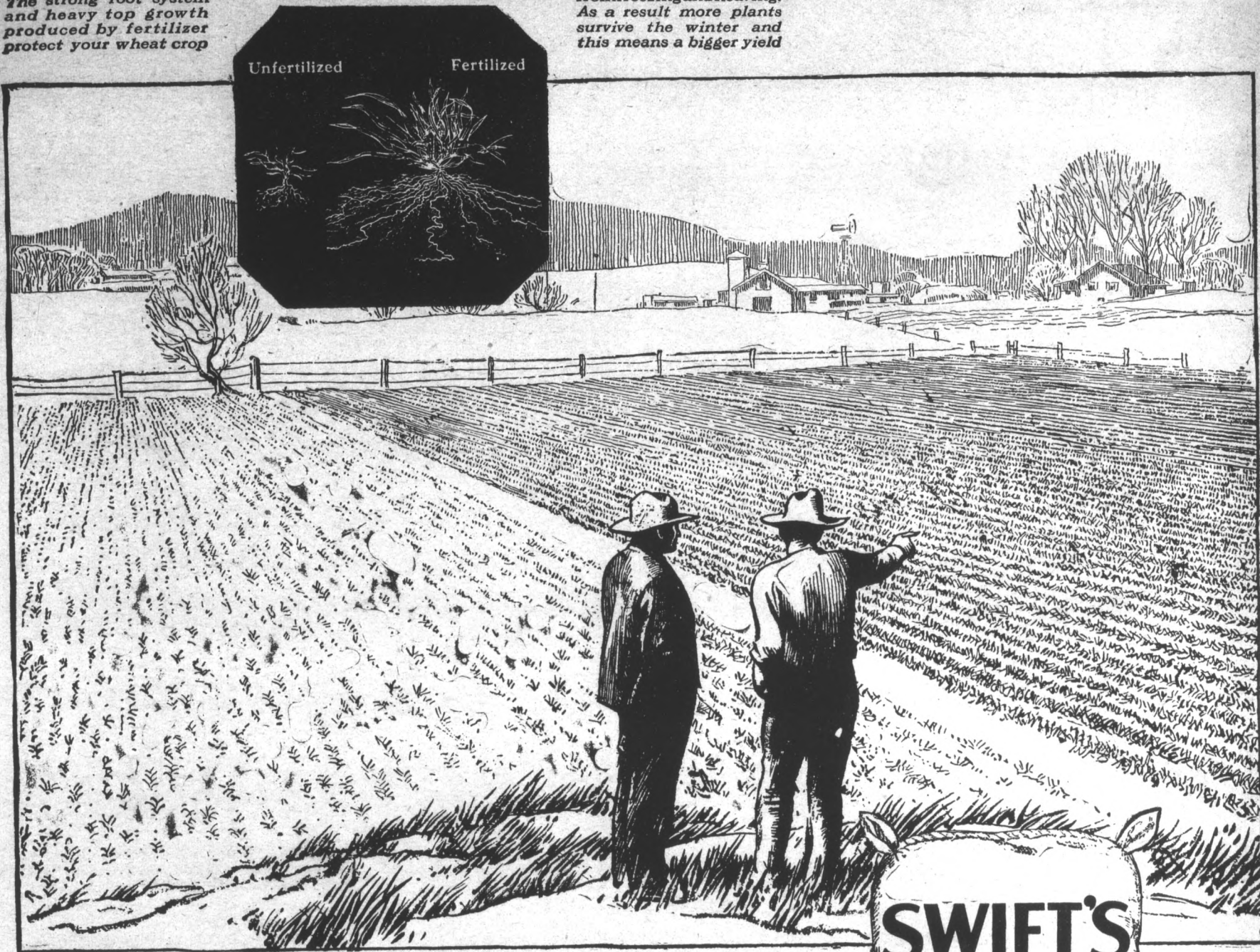
The farmers and housewives of this vicinity, having come so well to understand each other and the situation, will not give up the curb market and go back to the old system. Consequently, steps are now being taken to establish a permanent market house for our cooperative community market.

TOBACCO—Kentucky's Pride, Mild and mel- low 10 lb. \$3; 20 lb. \$5; Quality guaranteed. FARMERS' CLUB, Mayfield, Ky.

1000 Ferrets they hustle RATS and rabbits, price list free. N. A. KNAPP & SON, R. 2, New London, Ohio

The strong root system and heavy top growth produced by fertilizer protect your wheat crop

from freezing and heaving. As a result more plants survive the winter and this means a bigger yield



Make your wheat crop safe—with fertilizer

THE fall growing season for winter wheat is short at its best—particularly so when you sow late to avoid the Hessian Fly. Plenty of available plant food must be supplied to develop a heavy top growth and a strong root system as a protection against heaving and freezing.

A liberal use of fertilizer containing ammonia (to give the plant a quick start and promote top growth), phosphoric acid (to increase root growth, plump the grain and hasten maturity), and potash (to stiffen the straw and aid in starch formation), is your best assurance of a good wheat crop.

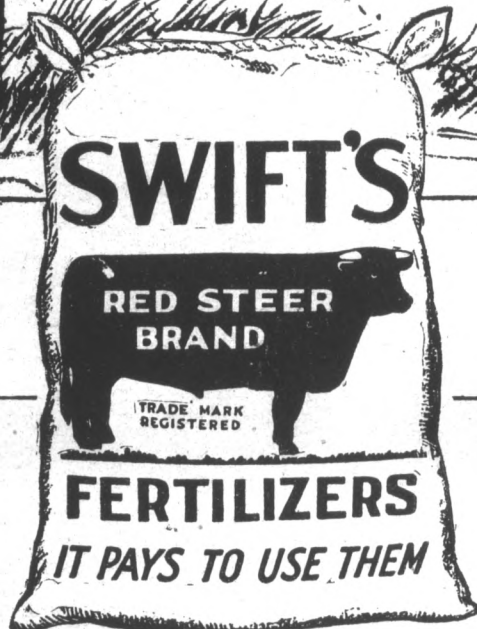
Experiments conducted by the Agricultural Colleges of the leading winter wheat states have conclusively shown an average increase in yield of *80 bushels of better quality wheat for each ton of fertilizer used.*

Make your wheat crop safe—with fertilizer. Use it liberally. Use high analysis fertilizers—they mean more plant food for your money.

Buy Swift's Red Steer Fertilizers—containing 14% or more of plant food. Order immediately from the local Swift dealer or write our nearest sales division.

Swift & Company, Dept. 47
(Fertilizer Works)
Hammond, Ind.

Dealers who are now selling or could sell fertilizer should write for our proposition. Your territory may be open.



Dependable Fertilizers

The Swift reputation—maintained for more than 50 years—of making every product the best of its kind, stands back of every bag of Swift's Red Steer Fertilizers.

Swift's Red Steer Fertilizers are Swift products. This simple statement is your convincing assurance of dependability.

Swift's Red Steer Fertilizers are made by an organization which has all of the resources to make fertilizers right—trained chemists, agricultural experts, manufacturing equipment, abundance of raw materials.

Swift's Red Steer Fertilizers are evenly mixed. Every bag is delivered to you in perfect mechanical condition. They drill freely.

Twenty-four large factories, located at advantageous shipping points, insure prompt and certain deliveries.

Look for the Red Steer on every bag you buy. It is your guarantee of highest quality.

"IT PAYS TO USE THEM"

You Wouldn't Buy a Pony for Draft-Horse Work

If you were buying horses for draft work, you would have no use for light-weight, under-sized teams. You would want strong and rugged horses, deep-chested, strong-limbed, with plenty of weight to throw into the collar and stay with the load. You would never buy ponies for draft-horse work.

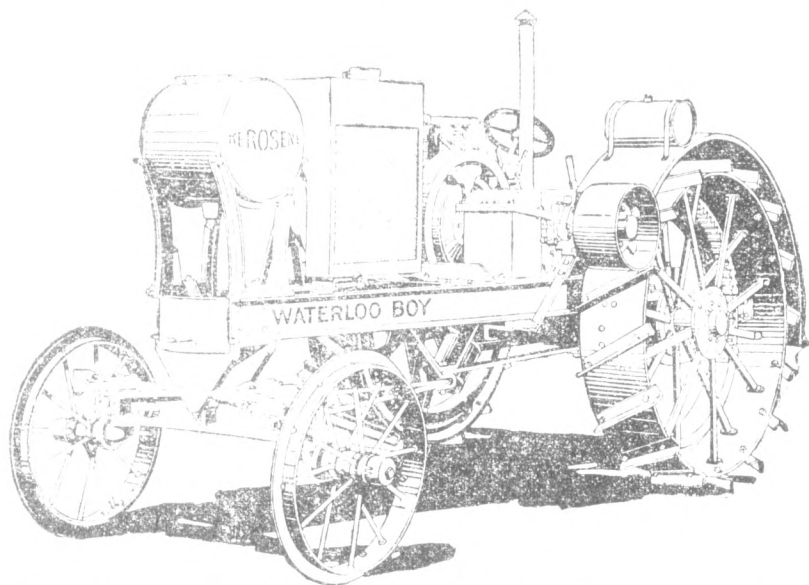
WATERLOO BOY KEROSENE TRACTOR

Remember that a tractor in its most important jobs has to do heavy-duty work continuously, often under difficult conditions. In plowing, in disking, at any drawbar job, the footing is uncertain, the going rough. But the load is always there, testing the tractor's stability every second. It is a load that a light-weight, low-powered outfit often cannot stand up under. It is a load that takes rugged construction and plenty of "brute power."

buying your horses—get a Waterloo Boy. It has the power, the rugged construction, and the stamina to handle the load, day after day, week after week, year after year.

Inspect the Waterloo Boy at your John Deere dealer's. Have him demonstrate it for you on your own farm. Drive it yourself. It will do your work as you want it done.

A post card will bring you our big free booklet fully illustrating and describing the Waterloo Boy. Write to John Deere, Moline, Ill., and ask for booklet T-222.



JOHN DEERE

THE TRADE MARK OF QUALITY—MADE FAMOUS BY GOOD IMPLEMENTS

Best Wire Fence On the Market
Lowest Price—Direct to User

Not hundreds of styles
Nor millions of miles,
But satisfied smiles
From every customer.

Bond Steel Post Co.
16 Maumee Street Adrian, Michigan

KITSELMAN FENCE
Get It From the Factory Direct

PRICES REDUCED June 1st.
We pay the freight and save you money. Direct from Factory to Farm. Mr. C. L. McIntosh, Indiana, writes: "My fence arrived in 10 days. I took it up. Saved 25c a rod by buying of you." You can't afford to buy fence until you get our big Free Catalog showing 100 styles and heights of farm and lawn fences, gates, etc. Write today.

KITSELMAN BROS. Dept. 278 Muncie, Indiana.

HOLDEN Spreader
SPREADS 16 1/2 FT.

handles wet or dry lime, phosphate and fertilizer. Haul direct from car to field. Saves time and labor. FREE folder. Low price—write.

The Holden Co., Inc. Peoria, Ill. Dept. 42

CUT DITCHING AND COST TERRACE

Make your time and dollars count big now. I have shown farmers in every state how to put their land into shape to produce big crops at lowest cost. Let me show you. Drain level land, save water, boggy and washed land too.

Use the Low Cost Farm Ditcher Terracer and Road Grader

THE Martin
C. D. & G. CO.

All-Steel—Reversible—Lasts Almost a Lifetime
Cuts a V-shaped open-drain, irrigation or tile ditch down to 4 feet. Cleans old ditches. Builds farm terraces, dikes, levees, and grades roads. Works in any soil—wet or dry.

Sold on 10 Days' Free Trial
Get the whole big money-saving offer in my free Drainage, Irrigation and Terracing Book. Special Introductory Offer now.

OWENSBORO DITCHER & GRADER CO., Inc.
Box 415 Owensboro, Kentucky

Making a Stand of Potatoes

(Continued from first page).

possible the experiment in making a stand of potatoes on this field which is illustrated in the accompanying cuts.

The "fancy" seed which had been treated as above noted was planted first as far as it would go, the balance of the field being planted with seed taken directly from the cellar. The crop was planted on or about June 25, which was a few days later than had been intended, owing to the hope that more suitable weather might come. The soil was in excellent condition for planting.

Some ten days after planting a careful examination of the seed in the hills showed it to be rotting so badly that on the portion of the field first planted not more than a quarter of a normal stand could possibly result. The portion of the field planted with our own hill-selected seed was some better, with half a stand possible, while that portion planted with seed directly from the cellar seemed to be coming fairly well with prospects of fully eighty per cent of a normal stand, which was fully up to the average in the neighborhood.

Right there we got busy in an attempt to make a stand of potatoes in this field. We had enough seed to replant the worst part of the field, and proceeded to plant it in the same thickness as before, planting in a hill between each hill in the rows one way of the field. This second planting was finished the eighth day of July, and the planting was immediately followed with a cultivation, using a wide-shovelled cultivator and throwing the dirt over the rows just as what plants survived of the first planting were coming up. This deeper covering proved to be beneficial, and the plants grew more rapidly after they came up, so that at the time the photographs were taken, on August 6, there was very little difference in the size of the plants from the two plantings.

One of the illustrations shows the present stand as it appears looking down the rows in this replanted section of the field. The other cut shows the appearance of the stand crosswise of the present rows. The thicker rows this way of the field are the second planting and the straggling plants between them are what survived from the first.

What the outcome of this experiment will be is, of course, problematical. With a favorable fall for maturing a late-planted crop it will undoubtedly be profitable. I will take more photographs of the crop later in the season and report the success or failure of the experiment in these columns. Aside from the possible results at harvest time the better appearance of the field as a result of making a fairly good stand of tubers out of an exceedingly poor prospect is a worth while compensation for the effort, and with anything like a normal fall the present prospects are that the labor expended in the effort will be a most profitable investment.

Corn After Alfalfa.

While foreign to the title of this experience article I cannot refrain from giving a little character testimony for my old friend alfalfa. The corn shown in the illustration on the first page was planted on an alfalfa sod. It promises a very heavy crop, due in no small part to that fact. It is an interesting observation on the fertilizing value of this legume to note that in a few low places where alfalfa had been killed out the plants lack something of the rich, dark green color characteristic of a corn plant which has enjoyed an abundant and well balanced ration of plant food. Apparently the storing of nitrogen in the soil is a continuous process with the alfalfa plant, making

it a better soil improver as well as a better hay producer than other available legumes.

"Hubam" After Alfalfa.

The other illustration is from a photograph of a field of "Hubam," the new annual sweet clover, which I am growing for seed, in full bloom. One man who has seen practically every field of this crop growing in the state was kind enough to say that it was the best he had seen. This plant is said to be a host plant for the same nitrogen-fixing bacteria which form the root nodules on alfalfa, and I attribute not a little of the successful growth of this crop to the fact that this field has been in alfalfa and is thus thoroughly inoculated with this bacteria.

In my judgment, alfalfa would prove a good friend to very many more Michigan farmers if they would get better acquainted with its habits.

THE ADVANTAGE OF STACKING GRAIN.

RECENTLY a test was conducted on shocked threshed and stacked grain which had been grown in the same field under the same conditions. The shocked grain was threshed as usual, while the stacked grain was allowed to stand for six weeks. The tests were then made on fifty bushels of each kind of grain. The shocked grain tested nearly fifteen per cent moisture, weighed fifty-five and a half pounds per bushel and graded number two on the market. The stacked grain had only a little more than thirteen per cent moisture, weighed fifty-nine pounds per bushel and graded number one.

Seedmen and growers of pure-bred grain also are practically unanimous in their agreement upon the advisability of stacking. This is rather significant and their experience must be considered valuable.

THE VALUE OF A CURB MARKET.

(Continued from page 175).

other thousands of housewives could not or would not get out so early in the morning and continued to telephone for their daily supplies.

The experiment of the curb market has proved highly satisfactory in Ann Arbor to both farmers and consumers. The farmers appreciate the opportunity to sell their fruit and vegetables on a local market. This includes not only their first rate produce, but the windfall fruits at reduced prices. For years the latter had been a total loss, because the jobbers would not buy them and the consumers could not get them. And for immediate use the housewife was glad to buy them. Another advantage to both sides was that at the curb market a farmer was able by fair dealing to build up a following of customers for the winter months, when the weather would be too cold for an out-of-door market.

One great advantage to the housewife of the curb market was the freshness of products. This in itself was worth a higher price. But instead she paid lower and not higher prices. Not the least advantage was the farmers' generous measure. In a grocery store five or six big peaches can be so arranged as to pass for a quart, while many farmers gave ten or twelve such peaches for less money.

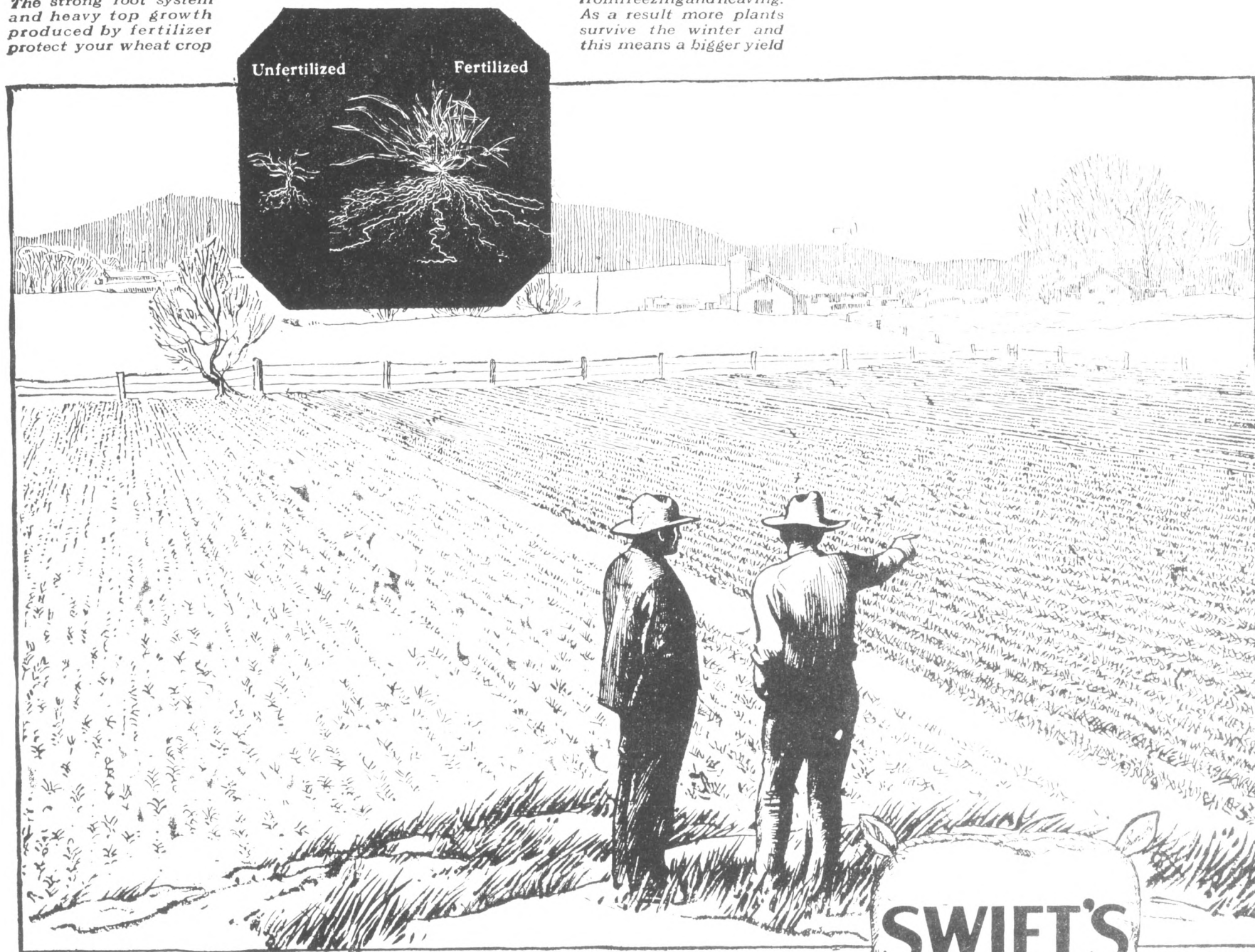
The farmers and housewives of this vicinity, having come so well to understand each other and the situation, will not give up the curb market and go back to the old system. Consequently, steps are now being taken to establish a permanent market house for our cooperative community market.

TOBACCO—Kentucky's Pride, Mild and molasses guaranteed. **FARMERS' CLUB**, Mayfield, Ky.

1000 Ferrets they hustle **RATS** and rabbits, price list free. **N. A. KNAPP & SON**, R. 2, New London, Ohio

The strong root system and heavy top growth produced by fertilizer protect your wheat crop

from freezing and heaving. As a result more plants survive the winter and this means a bigger yield



Make your wheat crop safe—with fertilizer

THE fall growing season for winter wheat is short at its best—particularly so when you sow late to avoid the Hessian Fly. Plenty of available plant food must be supplied to develop a heavy top growth and a strong root system as a protection against heaving and freezing.

A liberal use of fertilizer containing ammonia (to give the plant a quick start and promote top growth), phosphoric acid (to increase root growth, plump the grain and hasten maturity), and potash (to stiffen the straw and aid in starch formation), is your best assurance of a good wheat crop.

Experiments conducted by the Agricultural Colleges of the leading winter wheat states have conclusively shown an average increase in yield of *80 bushels of better quality wheat for each ton of fertilizer used.*

Make your wheat crop safe—with fertilizer. Use it liberally. Use high analysis fertilizers—they mean more plant food for your money.

Buy Swift's Red Steer Fertilizers—containing 14% or more of plant food. Order immediately from the local Swift dealer or write our nearest sales division.

Swift & Company, Dept. 47
(Fertilizer Works)
Hammond, Ind.

Dealers who are now selling or could sell fertilizer should write for our proposition. Your territory may be open.



Dependable Fertilizers

The Swift reputation—maintained for more than 50 years—of making every product the best of its kind, stands back of every bag of Swift's Red Steer Fertilizers.

Swift's Red Steer Fertilizers are Swift products. This simple statement is your convincing assurance of dependability.

Swift's Red Steer Fertilizers are made by an organization which has all of the resources to make fertilizers right—trained chemists, agricultural experts, manufacturing equipment, abundance of raw materials.

Swift's Red Steer Fertilizers are evenly mixed. Every bag is delivered to you in perfect mechanical condition. They drill freely.

Twenty-four large factories, located at advantageous shipping points, insure prompt and certain deliveries.

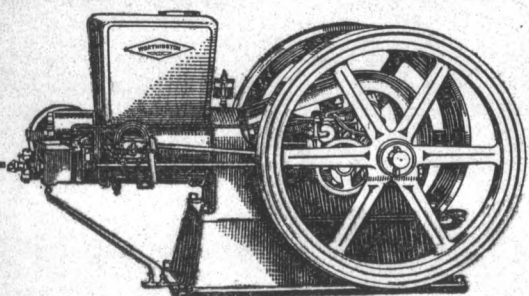
Look for the Red Steer on every bag you buy. It is your guarantee of highest quality.

"IT PAYS TO USE THEM"

WORTHINGTON

KEROSENE

ENGINES

STATIONARY
HAND AND
TEAM PORTABLE

1½ to 25 H. P.

Farm Work Made Easier

WORTHINGTON Kerosene Engines were designed and are constructed to suit the farmers' requirements. Suitable power on the farm is needed now more than ever. A WORTHINGTON Engine will take care of many jobs better and cheaper than human hands. It is untiring, always ready, the price is low and the cost of operation very slight.

As harvest approaches you will see, more and more, the need of a good reliable engine to assist in your work around the farm. There is an engine in the WORTHINGTON line of just the right size for pumping water, turning the cream separator, grindstone, furnishing power for the milking machine, driving the electric light plant, sawing wood and grinding feed, etc. Then there are the larger WORTHINGTON Engines for driving the silo filler, shredder and husker.

Our big, free, engine book describes the WORTHINGTON Engine and its many uses fully and will be of assistance to you in selecting the size and type best suited to your needs.

It will only cost you a postal card to get all of the details and the results will be pleasing and profitable.

Write for Booklet K

WORTHINGTON PUMP AND MACHINERY CORPORATION
122 HOLTHOFF PLACE, CUDAHY, WIS., U. S. A.

OTTAWA

Fastest cutting Log Saw. 810 strokes a minute. Light weight. Most powerful. Easy to move from cut to cut and log to log. Friction clutch controls saw blade while motor runs. Saws any size log into any lengths. When not sawing use as portable engine for pumping, grinding, other power jobs.

Read this: "My Log Saw is a marvel. All the neighbors hardly realize it can do the work of 10 men with cross cut saws."—D. K. Massey, Farmerville, O.

Tree Saw falls trees; Limb Saw cuts branches; Other Saw Rigs and farm and shop engines from 1½ to 25 H. P.

Log Saws shipped promptly from 1 off warehouses nearest you. 30-Day Trial. Cash or Easy Payments.

Now Selling at New Low Prices. LIBERAL 10-YEAR GUARANTEE. One Man Log Saw. WRITE FOR FREE BOOK TODAY.

App. for. 1509A Wood St. OTTAWA MFG. CO., Ottawa, Kansas.

H. Eikenhout & Sons

Baskets
Crates
Poultry Coops

ONE
or
CAR
LOAD

Grand Rapids,
Mich.

CORN HARVESTER cuts and piles on bar-vesters or windows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only \$28 with Testimonials and catalog FREE showing picture of Harvester. Process Harvester Co., Salina, Kansas

Saw Mill Machinery Portable Mills for Farm er's use. Make your own lumber. Send for new Catalog. HILL-CURTIS CO., 1506 No. Pitcher St., Kalamazoo, Mich.

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

Will You Be Lucky—

On a small number of silos we have made a big cut in price. This offer is limited so get in touch with us now. It will pay you.

In this lot are Saginaw Steel-Built Silos, Standard Stave Silos, Hollow-Wall Wood and Vitrified Tile Silos. As long as they last they will be sold at a sacrifice.

Write today for special prices.

Address Dept. 10B

The McClure Co.
Cairo, Ill. Saginaw, Mich.

THE GUNN BEAN HARVESTER

AS STANDARD AS A HOE
1 MAN - 1 "GUNN" - 1 DAY can readily harvest 2½ acres of beans. Wet weather need not stop the bean harvest if you have a "GUNN" ROOTS are really left in the field. Beans dry much faster - threshing is cleaner. NO EASIER CHEAPER way to HARVEST BEANS.

ONLY \$5
F. D. BULLOCK, Sales Agent
1716 Palmer Avenue KALAMAZOO, MICHIGAN
DEALERS WRITE FOR TERMS

For Sale Two unit Perfection milking machine guaranteed good as new. R. E. FISHER, 423 S. Sheldon St., Charlotte, Mich.

Our Service Department

ADVERSE POSSESSION.

I bought a frame building two years ago. The man on one side of me claims that we are four feet on his land, and the man on the other side is four feet on our land. The one man wants me to pay \$300 for his four feet, and the other won't move off my land. The building has been built for about thirty-five years. Will I have to move or buy the four feet?—J. M. H.

Open, notorious, exclusive, continuous, adverse possession under claim of right, for a period of fifteen years, gives title without any other or prior right; wherefore it would seem unnecessary for J. M. H. either to move, sell or purchase.—J. R. R.

ADVERSE USE.

I own forty acres of land. About fourteen years ago the county dug a drain about one mile in length, emptying water on my neighbor's land. He then dug a ditch from the county drain to my line, thus dumping county water on me. For forty rods this does no damage, but then it goes on a marsh which it floods. It is two miles to the river from my place and the land is owned by the state, so that I cannot have county drain extended. Could I have county drain closed?—A. D.

The same elements are necessary to acquire title by adverse use (that is, an easement for example of flowage as above), that are necessary to get title by adverse possession, except that it need not be exclusive, from which it would appear that no title to flowage has yet been acquired; and on these facts there was no such right originally; and Dobson could shut the water out, or have the county ordered to divert it. But if he should now sue in equity for relief, his long delay would operate against him, though not necessarily conclusive.—J. R. R.

CROPS FOR JUNE GRASS SOD.

I have four or five acres of land which is quite heavy clay. It has been plowed and has been in pasture for about fifteen years, quite heavy June sod. What would be the best crop to plant next spring so I could sow it to wheat in the fall of 1922? When would be the best time to plow it and how many inches deep should it be plowed? Wayne Co. A. H.

There are crops that might be planted next spring which would mature in time so this land could be sowed to wheat in September. One of the best would be beans. They do not have to be planted until the last of May or the first of June and with a favorable season would mature in August or very early in September. If bean land is kept well cultivated it leaves but very little work to prepare for wheat. The beans are all pulled so that there is nothing left and all that would be necessary would be to harrow or disc the land after the beans are taken off and you would be sure of getting your wheat in on time.

Again, this land could be planted to early potatoes and this crop would come off on time and also leaves the land in splendid condition for fall wheat without very much preparation.

If you kept live stock and had a silo, you could safely plant this land to ensilage corn and harvest it the last of August or the first of September and then by cultivating without disturbing the corn roots you could again sow wheat with but very little cost for preparation. I practice this system myself with good results.

You could also sow to oats or barley. This crop would come off in time. The land could be plowed or it could be fitted by harrowing or discing and wheat sown in September.

There are other crops also that

might be planted but these are the most usual ones in that section.

I think the better time to plow this June grass sod would be this fall. It would be in much better shape for the spring crop than if plowed in the spring. If it is impossible to plow it this fall, if you plant beans or corn or early potatoes, it could be plowed in the spring early and have time to prepare the land but if you should make up your mind to raise oats or barley, the land ought to be plowed this fall.

June grass sod quite frequently contains cutworms and by plowing it this fall the weather would destroy many of these. I would not recommend plowing it over six inches deep. If the land had been plowed before it would be a good plan to plow a little deeper the next time and gradually work up some of the subsoil, but inasmuch as the land has never been plowed I would not turn up too much of this subsoil and six inches is a very good depth. Some would not plow it over four or five inches deep.—C. C. L.

TITLE TO CROPS.

A man bought an eighty-acre farm having some crops on it. He doesn't like the farm and, though he cannot get the money back that he has paid for it, is going to leave. Has this man any right to sell the crops?—J. B.

The buyer owns the crop and can sell it; but he is also liable for the purchase price whether he likes the farm or not unless he can get the contract voided for fraud or on some other ground. The seller might also have the removal of the crops enjoined on the allegation that his security was endangered, and that the sale was made with intent to defraud him.—J. R. R.

APPLYING FERTILIZER.

Would I get as good results from applying acid phosphate to the top surface and dragging it in as I would if I used a fertilizer drill? Calhoun Co. R. S. C.

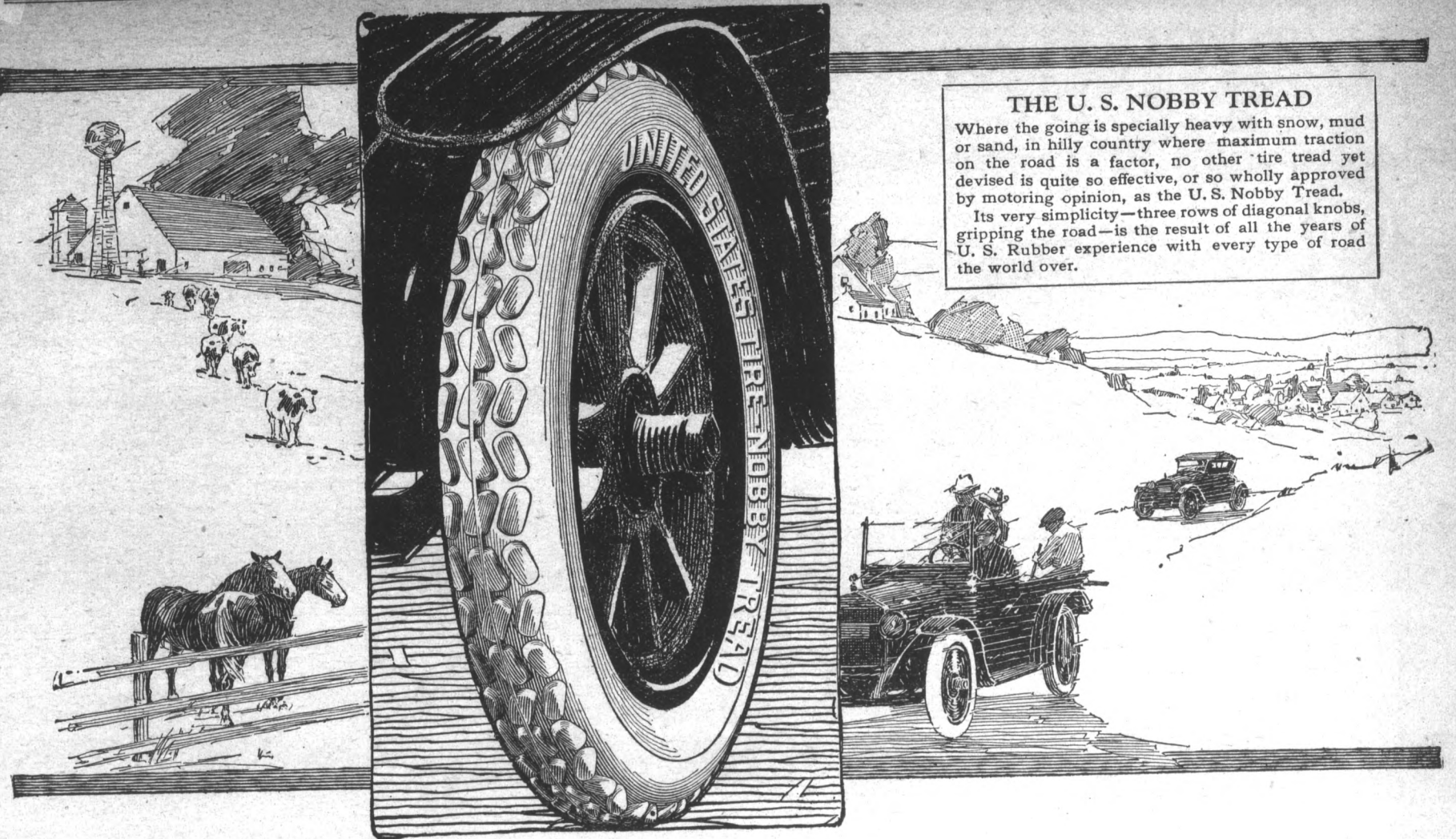
One of the prime requisites in getting results from fertilizer is thorough distribution of the fertilizer in the surface soil. By sowing the fertilizer with a distributor on top of the ground before the wheat is sown and harrowing it in, undoubtedly is the best way to get even and thorough distribution. It would be better than using a grain fertilizer drill, although it costs more because with a drill you sow the wheat and distribute the fertilizer at the same expense and get quite good distribution.

Fertilizer should always be applied to the surface soil. Never put it on like you do coarse manure and plow it down.—C. C. L.

HUNTING WITH FERRETS.

We are renting a large farm in Grattan township, Kent county, and wish to know if it is lawful to hunt with a ferret on this farm?—B. B.

Act 207 of 1915 forbids the use of ferrets in hunting rabbits except by farmers and fruit growers on their lands, or unless by vote at the town meeting on proper previous notice as provided in the act a majority of the electors voting vote that the act does not apply in the township. The statute does not provide what title the farmer shall have to the land; and a person having land by lease owns it in a limited sense; and it is believed such ownership would satisfy the statute. There is no judicial interpretation of the statute reported.—J. R. R.



THE U. S. NOBBY TREAD

Where the going is specially heavy with snow, mud or sand, in hilly country where maximum traction on the road is a factor, no other tire tread yet devised is quite so effective, or so wholly approved by motoring opinion, as the U. S. Nobby Tread.

Its very simplicity—three rows of diagonal knobs, gripping the road—is the result of all the years of U. S. Rubber experience with every type of road the world over.

Who can tell a good tire just by *looking* at it? How much do you depend on your dealer's recommendation? Who *is* your dealer? Are the makers of the tires he sells as responsible to *him* as you expect him to be to *you*?

Know the tire you buy, and the dealer who sells it to you. Spend your tire money for assured values. There is everything to gain in a fair and square tire purchase. Get the returns in economy and service you're entitled to.

The U. S. Dealer is a responsible merchant. Buy a U. S. Tire and you get tire satisfaction every time. A brand new tire of fresh, live rubber. A tire with a reputation and nothing to hide. Built and sold on the U. S. basis of quality and conscientious service.

United States Tires are Good Tires

U. S. USCO TREAD
U. S. CHAIN TREAD
U. S. NOBBY TREAD
U. S. ROYAL CORD
U. S. RED & GREY TUBES

United States Tires

United States Rubber Company



The Oldest and Largest
Rubber Organization in the World

Two hundred and
thirty-five Branches

Fifty-three
Factories

FARM BUREAU NEWS

SUPPLIES OF SEED LOW.

MAMMOTH clover is off the market, says the State Farm Bureau Seed Department. Surplus stocks everywhere have been exhausted and nearly everyone will have to await the new crop. It will be two weeks before that is moving and it is declared to be rather scanty.

Recent rains have put fields in good shape for sowing alfalfa and the farm bureau reports that the fall demand for the seed is beginning to make itself felt.

VIRGIN WOOL SUITS.

STATE farm bureau wool poolers have gone a step farther in the quick disposition of their 1921 pool by enlarging the outlet for virgin wool fabrics. They have just made arrangements for the manufacture of standard size virgin wool suits of clothes, of which a complete stock will be carried, in all sizes and styles, says the farm bureau wool department. Prices on these suits, it is stated, will be such that the farmer is getting a splendid return on his wool and that the consumer is getting an original wool product of the best cut and tailoring at an astoundingly low price.

Farm bureau overcoats—Miltons and Kerseys—have begun to come into state headquarters from the Columbia City, Ind., woolen mills. It is announced that the farmers are making for themselves the best grade overcoats in Miltons, Kerseys and plaid backs at \$25 each.

Arrangements have been made with the Cleveland Worsted Mills, of Cleveland, Ohio, one of the largest institutions of its kind in the country, to make farm bureau wool into worsteds. Today mills at South Bend, Ind., are making cassimeres for the farm bureau.

Wool continues to come into the State Farm Bureau wool pool. Last week ten thousand more pounds of wool were pooled at Reed City. Thousands of pounds of wool yet in farmers' barns will soon begin to come into the pool, according to State Farm Bureau wool pool men.

BUY OLD OATS FOR SEED.

FARMERS will do well to take a tip from the seed companies that are now buying up old oats of good weight and color for seed purposes next year, says the State Farm Bureau. Unfavorable weather this year has produced a crop that is light and the grain itself is light weight stuff. Seed companies are proceeding along the lines that old seed that is in good condition will be good stuff to have on hand next spring. Farmers can profit by hanging onto any good last year's oats, particularly pedigreed stocks, says the farm bureau.

HOUSEHOLD FURNISHINGS STAY HIGH.

HOUSEHOLD furnishings are still two hundred and fifty per cent above the 1913 price as against farm products which are generally about thirteen per cent above the 1913 price level," says President J. R. Howard, of the American Farm Bureau Federation in commenting on the request made recently by Senator Kenyon of Iowa, for a federal trade commission investigation of the furniture trade to ascertain what the conditions are which make possible a price condition so far out of line with the tendencies in other lines.

Furniture prices have been in a

class by themselves, according to Mr. Howard, who says that the trade assures the American Farm Bureau Federation that no decline in prices is expected in the group. In October, 1920, furniture prices were three hundred and seventy-one per cent of the 1913 prices and have continued far out of line with any other group of commodities, according to Mr. Howard.

Investigation of lumber and building prices by Samuel Untermyer at New York and Chicago revealed, according to the press, that trade associations operated to maintain artificially high prices through curtailing production and supply.

FARM BUREAU GARDEN SEEDS

THE Michigan State Farm Bureau has about eighty-five acres of garden wax beans and sweet corn growing in various parts of the state, with the idea of being able to supply farmers next spring with wax beans and sweet corn seed that is true to name and the best of its kind. The department has about forty-five acres sown to three varieties of wax beans and about twenty acres each of Golden Bantam and Evergreen sweet corn.

THE FREIGHT SITUATION.

SHIPPIERS who ship now if it is convenient, and who are getting all freight shipments under way as quickly as possible are acting wisely, says the State Farm Bureau traffic department, pointing out that there is increasing evidence that there will be an insufficient number of freight cars to meet the heavy grain requirements of the northwest. It is also believed that with the return of normal conditions in other lines the carriers are going to find it very difficult to meet all demands promptly.

Railroads are in better shape from an operating standpoint than they were one year ago, says the traffic department, but it is said that their supply of cars is still far short of the requirements of a "peak" movement of freight. Accordingly, it is advised that those who can should take advantage of the present "easy" situation in railroad traffic.

The time limit for filing loss and damage claims with all express companies has been extended from four months to six months, effective September 10, 1921, according to the State Farm Bureau.

A VICTORY FOR DAIRYMEN.

NO tax of ten cents a pound will be levied on butter made from neutralized cream, according to recent dispatches from Washington which record the death of the United States Treasury proposal to impose such a tax, suggested during the last days of the retiring administration.

Dairymen hail the news as a victory for them, according to comment made by prominent Michigan dairymen. It is held by them that the proposed tax would have cut into the farmer's butterfat return and would have compelled him to pay an excessive tax. They point out, too, that butter substitute interests could have capitalized the tax for their own benefit by declaring butter made from neutralized cream an adulterated product and taxed as such. Michigan produces about thirty million pounds of butter annually, much of which is made from neutralized cream.

The preliminary work of the U. S. Grain Growers, Inc., is going on rapidly and in a satisfactory manner.

U S MUTUAL AUTOMOBILE INSURANCE COMPANY

The Farmer's Own Company

Turning the Tables on Hard Luck

Two weeks ago, a Southern Michigan farmer learned a lot more about U. S. MUTUAL AUTOMOBILE INSURANCE. Learned about it through a startling rear-end collision.

It all happened in the city. He had wormed his way through busy streets for years and collision was a remote thought in his mind, this particular late Saturday afternoon. As before, he kept his eye on the traffic signals and the Buick Sedan directly ahead of his car. As before, block after block of "stop" and "go" went by uneventfully during his journey through the congested down-town traffic. In fact: all went well until the parading machines began to break up by twos and threes into diverging streets.

Luck's Decree

Luck decreed that this same Buick turn the farmer's way, and nothing more would have been thought of it but for the spontaneous action of a thoughtless child who, unexpectedly, crossed the path of the Buick ahead. Instantly, the Buick driver slammed on his emergency, wisely signalling the farmer as he did so. But, engrossed in conversation, etc., the farmer failed to heed the warning in time, and crashed into the Sedan. His radiator and hood were caved in, head-lights telescoped and fenders crumpled in the impact.

It Cost Him \$135

Fortunately, the child was not seriously injured but the farmer, from witness evidence, was compelled to pay doctor bills in addition to repairs on his machine. He had, however, wisely prepared for the unexpected and, when he presented his Liability and Collision claim for \$135 to the U. S. MUTUAL AUTOMOBILE INSURANCE COMPANY, prompt and satisfactory settlement has made him a confirmed U. S. MUTUAL enthusiast.

U. S. Mutual vs. Hard Luck

Are you wisely profiting by your own or some one's else experience in hazardous driving these days? You are if, like the mentioned farmer, you have secured U. S. FIVE POINT FULL COVERAGE NON-DEDUCTIBLE POLICY PROTECTION against:

- 1--FIRE
- 2--THEFT
- 3--COLLISION
- 4--PROPERTY DAMAGE
- and 5--LIABILITY

A positive protection that will only cost you \$1.00 per Horse Power plus the small annual membership fee of \$1.00.

Drop Colonel A. H. Gansser, Bay City, Michigan

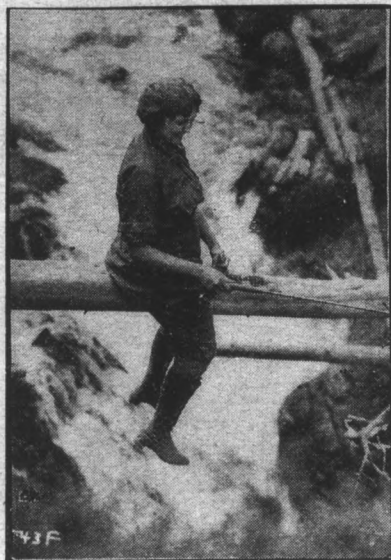
a postal today. You will not be obligated and his answer will tell you more about one of the most remarkable automobile protections ever offered.

U. S. Mutual Automobile Insurance Company

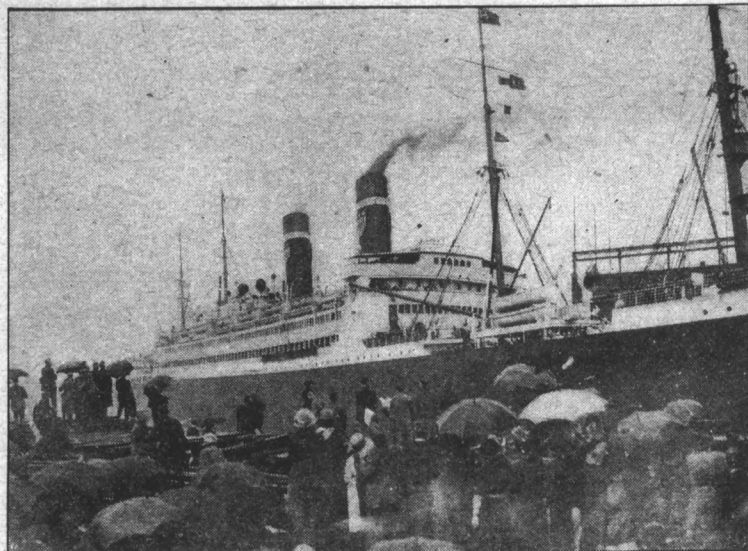
Executive Office
Grand Rapids, Michigan
Colon C. Lillie, Pres.

Home Office
Bay City, Michigan
F. F. McGinnis, Sec. and Treas.
Col. A. H. Gansser, Director and Gen. Mgr.

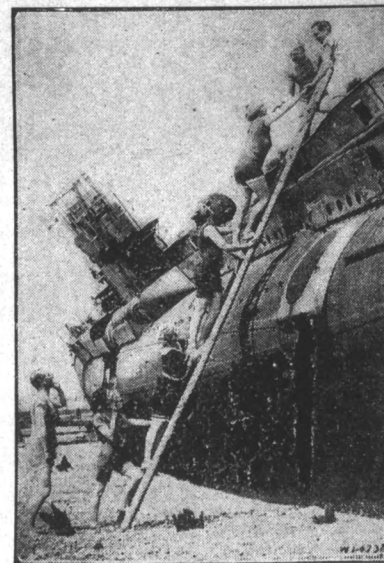
WORLD EVENTS IN PICTURES



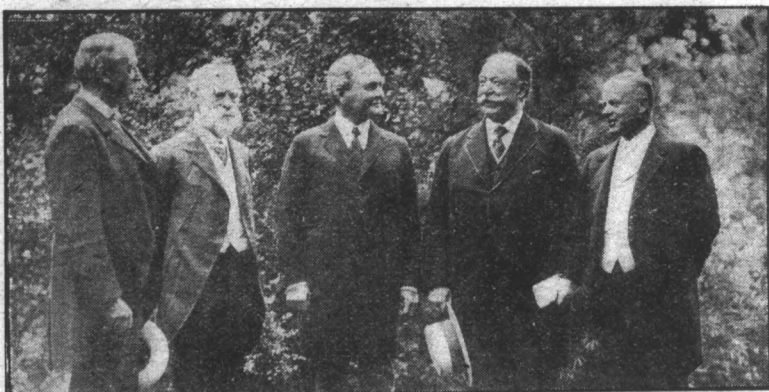
Just fishing for trout in Yellowstone Park, that's all.



The U. S. S. George Washington makes its first trip in the U. S. mail service. It formerly belonged to Germany.



A German submarine put to good use as a bath house.



Viscount Brice, Chief Justice Taft, and other notables speak at Williams College, new institute of politics.



Geraldine Farrar, a famous soprano, and her actor husband, Lou Tellegen, enjoyed home life before recent family troubles.



Squaw thinks that the modern bathing suits are insufficient.



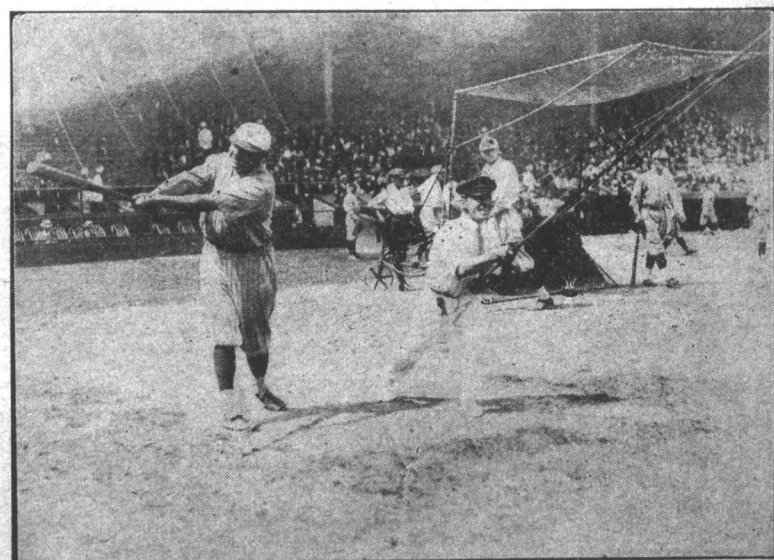
Both are dogs, only one is a regular pocket edition.



This is one way of keeping children from skipping school during hot weather.



Miss Madeline Starhill, recently judged the most beautiful girl in Philadelphia, does a daring stunt while taking sun bath.



Champion surf caster tries vainly to cast as far as Babe Ruth could bat a ball.

THE CLAN CALL

By HAPSBURG LIEBE Copyright 1920, Doubleday, Page & Co.

One of those below yelled surprisedly: "Who're you?" Then they all whipped to the other side of their sheltering timber.

The answer came at once: "I'm Bill Dale, and I'm peeved! You're at the mercy of the finest hill clan that ever looked along rifle barrels; will you surrender, or fight it out?"

"You said it—we'll fight it out!" cried a burly cousin of Black Adam Ball, deceased.

"You're on!" growled Bill Dale, slipping his rifle out beside the tree. "Give 'em hell, boys!"

He was unused to this sort of thing, and he was incautious. He showed a little too much of himself—there was a sudden keen report from below, and a bullet hole appeared in the rim of his hat! John Moreland fired the next shot, and he broke the right arm of the man who had just fired at Bill Dale. This opened the battle in earnest.

Soon the thunder of the many rifles became almost a steady roar. The air was filled with the pungent odor of burning powder. Bill Dale emptied the magazine of his repeater, and sank behind the big chestnut to fill it again with cartridges from his belt. Bullets now whined on both sides of him; they cut greenish white furrows in the bark of both sides of the tree and knocked up little spurts of black earth to his right and to his left; they cut off twigs within an arm's reach of him. A dozen Balls were now firing at him, seeking to avenge the death of their kinsman, the Goliath. John Moreland's strong voice came to him through the din and roar:

"Don't show no part o' yourself now, Bill; ef ye do, ye'll shore be hit!"

Dale fired again, pumped a fresh cartridge into the chamber of his rifle and slipped another into the magazine, and arose behind the chestnut.

"Down, Bill!" cried John Moreland.

If Dale heard, he gave no sign of it. He fired four shots rapidly, and before the wind had carried away the blinding smoke he was behind another tree and shooting toward the Balls again. Soon there came a short, loud peal of laughter from his left; he turned his head and saw Ben Littleford taking a careful aim at a long angle toward the side of a boulder. Then Littleford fired, and a puff of stone dust showed that his bullet had gone true to its mark.

"What's that for?" demanded Dale. "We haven't any ammunition to throw away!"

"Why, Bill," replied Littleford, "didn't ye never bounce a bullet offen

a rock and make it go towards a man ahind of a tree?"

It lasted hotly for two hours, but the casualties were comparatively few, because there was so much cover available. From the beginning the Balls and the Turners had the worst of it, which was due to uphill shooting, white whiskey, and lack of the iron that makes real fighting men. The cartridges of those below were giving out; they had fired too many shots needlessly.

"It's about time to rush them," Dale said to John Moreland, who had crept up beside him.

"Jest give the word," Moreland nodded.

A few minutes later, Bill Dale sent the wings of his line down the mountainside, forming a half-circle of his force once more; then the whole line rushed, surrounded the enemy and called for a surrender.

But the Balls and their kinsmen wouldn't give in yet. They left their cover and started to run, found themselves facing Morelands and Littlefords in every direction, clubbed their rifles and fought. It was not true courage that prompted them; to offer resistance thus: it was utter desperation; they had never been givers of mercy, therefore they did not expect mercy. Dale's men forebore to fire upon them, which was at Dale's command, and met them with clubbed rifles. The woodland with the sound of wood and steel crashing against wood and steel. Everywhere there were groans and threats and curses from the losing side, victorious cries and further demands for a surrender from the winners.

Bill Dale, ever a lover of fair combat, threw down his repeater to grapple with a big North Carolinian whose clubbed weapon had been knocked from his hands. The two fell and rolled down the mountainside, locked in each other's arms.

And then one of the Balls struck Bill Dale across the head with the butt of his empty gun, and Bill Dale slackened his arms and lay as-one dead.

He was lying under cover in a hand-carved black walnut four-poster, and it was night, when he opened his eyes again. Above him he saw the bearded faces of Ben Littleford and John Moreland, and they looked haggard and anxious in the oil lamp's yellow light. Suddenly Moreland spoke:

"Dead—nothin'!" jubilantly. "Look, Ben; he's done come to! Ye couldn't put him in a cannon and shoot him ag'inst a clift and kill him, Ben! I

hope ye're a-feelin' all right, Bill, shore."

Dale realized everything quite clearly. He put a hand to his head; there was a wet cloth lying over the swollen place.

"He shore give ye a buster of a lick," drawled a voice that Dale instantly recognized as that of his worshipper, By Heck. "Danged ef Cale Moreland didn't might nigh it beat him to death, Bill!"

Many men crowded to the bedside and smiled at him, and he smiled back at them. Soon he asked:

"Did you capture the outfit?"

"Every durned one of 'em," answered John Moreland. "They'll all shet up tight in the downstairs o' the office buildin', onder gyard. The' ain't but one of 'em plumb teetotally dead, fo' a wonder; but the's a whole passel of 'em hurt. I've done sent Luke to town on hossback, atter a doctor fo' you and Saul and Little Tom; and he can 'tend to them crappel Balls, too, I reckon, ef you think it's best. What're we agoin' to do with them fellers, Bill?"

"We're going to take them to the Cartersville jail," Dale answered promptly.

"I had a different plan an' that planned out, John," said By Heck, winking at Ben Littleford. "I had it planned out to hang 'em all on a big green hemlock as a Christmas tree fo' Bill! Some devilish rough Christmas Eve ye're a-havin', Bill, old boy, ain't it?"

"Rather," smiled Dale. He closed his eyes. His head ached, and he was somehow very tired.

Within the hour he went to sleep, and when he awoke it was daylight on Christmas morning. Ben Littleford, half dressed, was stirring the coals to life in the wide-mouthed stone fireplace. Dale felt better than he had expected to feel; he greeted Littleford with the compliments of the season, arose and dressed himself.

Littleford had just gone with a handful of kindling wood toward the kitchen, when there was a low, light tapping at the outside door of Bill Dale's room. Dale arose from his sheepskin-lined rocker before the cheery log fire, went to the door and opened it. Before him stood a slim, barefoot boy in the poorest of rags; in the pitifully slender arms there was something wrapped rather loosely in crumpled brown paper. Dale did not remember having seen the lad before, but he knew it was no Littleford.

"Come in, son," he invited cordially—"come in and warm yourself. My goodness alive, it's too cold to go bare-

footed like that! Haven't you any shoes, son?"

"Shoes?" muttered the boy, queerly. "Shoes?"

He was shivering from the cold. His thin face looked pinched and blue, his eyes big and hollow. Dale stooped, picked him up bodily, carried him to the old rocker he had just vacated, and put him into it with hands as gentle as any woman's.

"Hell," began the boy, staring hard—"what—"

"Now stick your feet out and warm them, son—that's it," and Dale chafed the poor little, dirty, half-frozen feet and legs.

"Son," he went on after a moment, his heart throbbing out of sheer pity, "you go to the commissary clerk and tell him to dress you up like the crown prince of England, if he's got it, and charge the same to the account of Bill Dale. It will be my Christmas gift to you, little boy. What's your name?"

The lad turned his surprised black eyes upon the face of the big and sun-browned man.

"Are you Bill Dale?"

"Yes."

That which the boy said next struck the big and sunbrowned man with all the force of a bullet.

"So you're Bill Dale. Well, ——— my soul!"

"Don't buddy, don't."

The boy went on: "My name, it's Oenery. I come here with a Christmas gif' fo' you." He pointed a dirty forefinger toward the bundle in his lap. "But you ain't a-goin' to git it."

"Why?" Dale asked smilingly.

"Why! Shoes—at's why. Hell, did I ever have any shoes afore? Barefooted as a rabbit. That's me. Barefooted as a blasted rabbit!"

"Son," protested Bill Dale, "you're entirely too small to swear. You mustn't do it, y'know."

"Yes," quickly, "I'm small. I'm small to my age. I'm done twelve year old. I've been measured fo' the go-backs."

"Measured for the go-backs," laughed Dale—"what's that?"

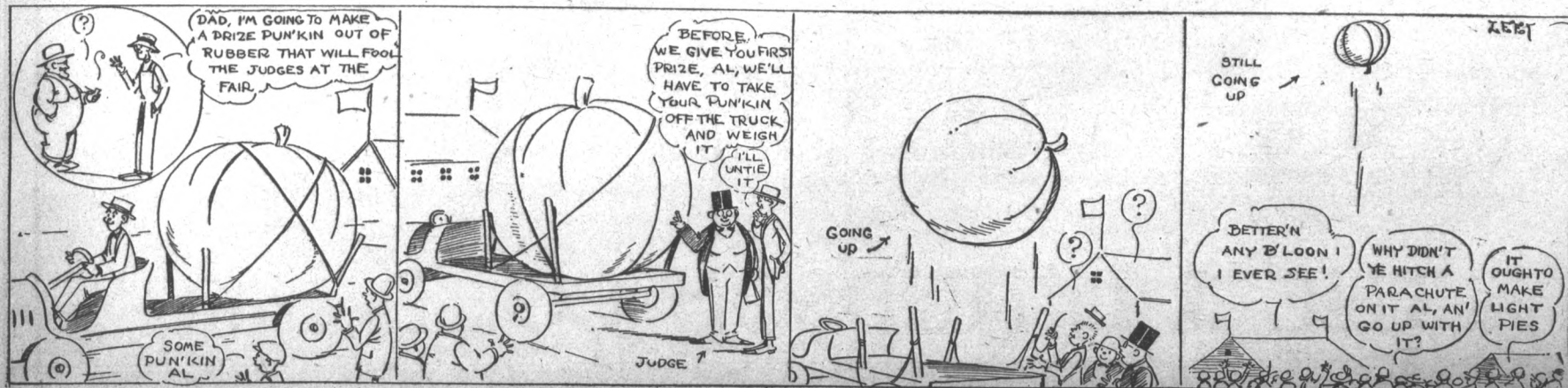
"Why," soberly, "when ye grow littler 'stid o' bigger, ye've got the go-backs. Maw, she measured me with a yarn string out o' a stocking which had been wore by a woman seventy-seven year old, and 'en she wrapped the yarn string around the door-hinge. I'll 'gin to grow bigger, or die, one or t'other, afore the string wears out on the hinge. Bound to."

Again Dale laughed. Mountain superstitions always amused him. Ben Littleford came into the room, and Dale arose and faced him.

(Continued next week.)

AL ACRES—Al's Pumpkin, Planned for High Awards, is Undoubtedly Going After Them.

—By Frank R. Leet

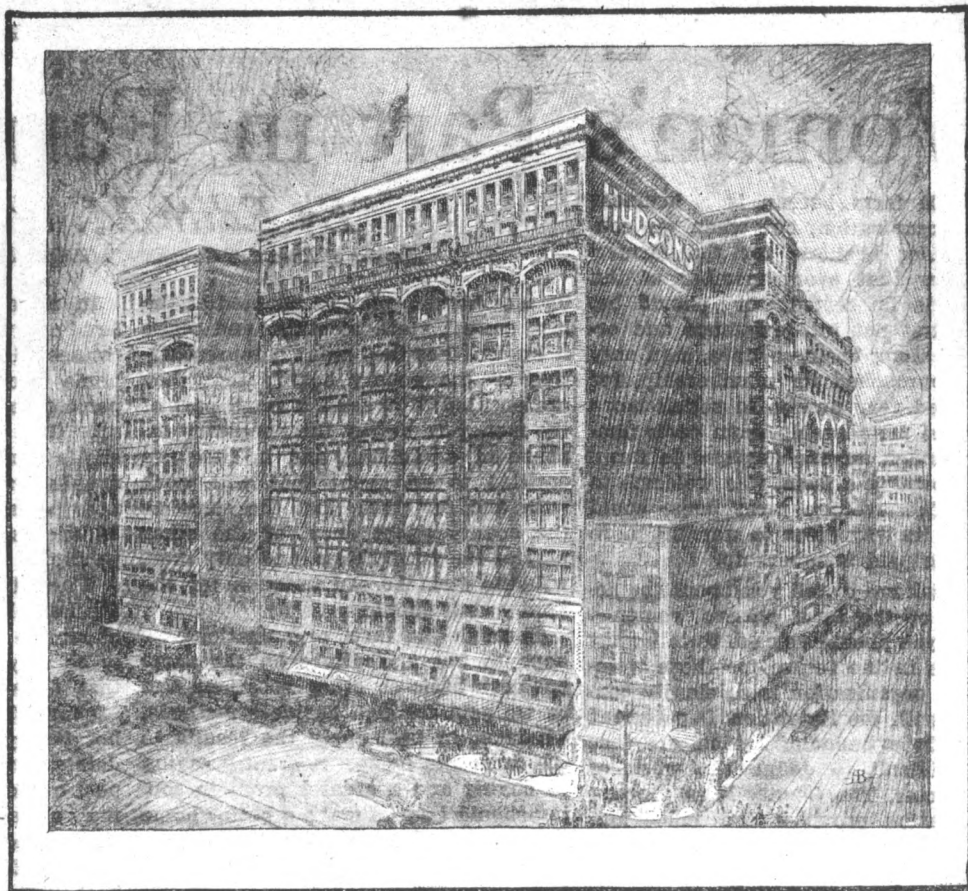


HUDSON'S 40th Anniversary Sale

Begins on Thursday, September 1st

TO celebrate these two score years of store keeping, we shall offer some of the most remarkable values in our history.

Every day of this Fortieth Anniversary Sale will be a memorable one, because every day different merchandise will be advertised and every day new opportunities will be presented. Each and every item has been selected with the greatest care and will be of seasonable, serviceable merchandise—all Hudson standard.



To Those Who Will Come To The State Fair

we earnestly advise that you make plans to reserve for your shopping a generous portion of the time you will spend in Detroit. The savings you will make will more than justify this.

To Those Who Will Not Come To The Fair

we beg to advise that this Fortieth Anniversary Sale offers as much for you as it will for those who will shop in person. Read the daily newspaper advertisements and all literature that may come to you—then send in your order by mail or telephone, and

Let The Personal Service Department SHOP FOR YOU

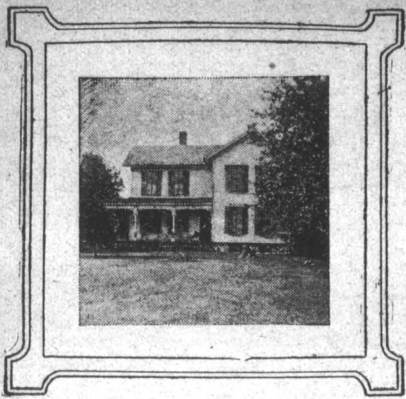
Give us a careful description of the things which you desire and permit our expert shoppers to select them, so that you may not only secure that which you need, but enjoy the purchase all the more because of the unusually low price you will pay in this Fortieth Anniversary Sale.

Every Department in the Store will Participate

so that you may be assured of obtaining whatever you need at much less than you anticipated paying.

The sale will end on Saturday, September 17th, giving you two full weeks to share in very remarkable value giving.

THE J. L. HUDSON CO., Detroit



*Life's a mirror; if we smile
Smiles come back to greet us.
If we're frowning all the while,
Frowns forever meet us.*

Woman's Interests



Woman's Part in Farm Bureau Work

By Edith M. Wagar

Member of Executive Committee, Michigan State Farm Bureau

THE farm bureau is a business organization, but when we consider business for the farmer, we know that every member of the faculty is interested, or should be. When first put into existence and organized along business lines, men only were approached for membership, for it seemed very unwise to solicit more than one membership from each family, although anyone engaged in farming or owning a farm, was welcome to join. The average farm home could not see its way clear to warrant more than one paid membership.

You ask me to tell you about the activities of the farm bureau women—rather, you should ask me to tell what we hope in the future for those women. The organization is so closely connected with the Extension Department of the Department of Agriculture that it is difficult to define the work of each factor. The County Farm Bureau organization provides the office and equipment and part salary of the county agent, home demonstrator, and club leader, who in turn are partially under the supervision of the state and the federal departments of agriculture.

That our women may derive full benefits of our organization, it is almost necessary that there be in each county, a home demonstrating agent, to act as leader. And under her supervision the county can and should be organized into community groups. Unlike the organization for men, which takes in a whole township or sometimes two or three townships into one cooperative local, the organizations for women must be more in the nature of neighborhood groups, that we may reach the woman most in need of aid. The woman of the farm, busy with farm duties and family cares cannot reach any gathering outside her own community without too great an effort. Then when it seems best, let there be family attendance at both locals and community clubs.

There is a great work to be done in counties not yet having a home demonstrator. In the first place, someone from within the county should show a desire for such help and show a willingness to cooperate after securing one. If the people of the county would choose a woman or committee of women to have in charge work of this nature, they in turn could call together groups of interested women and girls who might help each other by working together in making those needed dress forms, or studying the food values of the meals of their families or remodeling the last year's hat, or demonstrating the canning of fruits, vegetables or meats, or culling out the drones of the poultry flocks, etc.

Many times specialists from the college could be secured for a series of meetings if the county was only organized that they could reach a given number of women in a short time. This plan of organization should start with the County Farm Bureau. When the women of any county come to the realization that they are part of this big farm organization through the fam-

ily membership plan as adopted at the last annual state meeting, and make it known that they want a representative on the county board; that they are entitled to at least a small part of the money to defray the necessary expense of organizing, and in time are entitled to an agent that will work with and for them, just the same as the county agent does for the other part of the family then, and only then, will the farm bureau function for the family as it should.

Through the farm organizations we hope to put agriculture on the same business basis as other vocations and as we gain through business methods, we must in turn apply the results to the farm and home. A greater saving in buying and a greater profit in selling should help to make a better home and a more contented family; but if our business transactions are not followed toward that betterment of the farm home then we have only been half successful. Too many of our farm people have drifted into the channel of investing the earnings of the farm in outside interests to the neglect of home improvement. When we consider ourselves as farmers for life and make farming a practical life study—then we will take pride in our farms, stock, and homes.

In no other vocation are the husband and wife and family more closely connected than in farming; where home accounts are kept, ninety-five per cent of them are kept by the woman. She is far more interested than she is sometimes given credit for. She usually wants to know about the business transactions of their lives, and to be successful she must be an active partner.

When it comes to the business of the farm bureau, she hears and knows about the selling of crops cooperatively so why should she not understand that department called the elevator exchange? She knows the needs of her family so why should she not understand the wool department with its pool of wool and manufacture of clothing materials and blankets? She knows the needs of various commodities for the farm, so why should she not know the possibilities of the purchasing department? She is closely associated with the dairy, sugar beet, fruit, or live stock activities of their farm, so she in turn is interested in the development of these departments.

And since she has all the privileges of any voter she must be interested in our legislative department. We want our women so interested that they will understand all phases of the state in-

come tax to be voted upon in the fall of 1922. In fact, we want them to know and work for all right legislation, not only for the farmer, but for the good of the state, nation, and humanity. And the best way to reach our women is through organization. So it stands us in hand to urge our women to be interested in our work, and to urge the men to welcome those women to share the benefits, cares, and responsibilities of the farm bureau.

I have watched with great interest the activities of the home demonstration agent in several counties and I feel that any county is richer for her work among the girls and women. So much has been said about keeping the boy on the farm, but it seems just as necessary to make farm life attractive for the girl as for the boy. We cannot expect him to stay there alone. I fear the majority of cases where the farmer has moved into town can be attributed to the discontent of the woman—too little effort was made to conserve her strength and time and to make life worth living. My heart goes out to the farm woman who dreams of the time that she can have water in the house, a lighting plant, furnace, or bathroom, and I have no patience with the farmer who can have these necessities, yet prefers a bank account or stock in some oil company, or an eight cylinder automobile.

We have great hopes in the future for the farm bureau. There seems no reason why a great many disagreeable factors and disadvantages of farm life could not be remedied if only our agricultural people will hold together patiently until results can be shown. Many of the results will not be visible, they will come in an indirect way, in fact, the results are now with us every day, yet are not noticeable until they are pointed out. We are now working out our own truth-in-fabric law. When we manufacture the Michigan-grown wool crop into material to clothe Michigan people with genuine virgin wool, we aid the wool grower and consumer alike. Who knows the future possibilities of this one feature of our work, yet in its infancy?

When a milk campaign is put on in any community by the home demonstration agent, or county nurse specialist, everybody is benefited. The milk producer should encourage it, for it concerns his product, and the consumer learns of the value of milk as a health-giving food.

When dress form schools are held they fill a long-felt want with the housewife, who must make her own clothing. This is something many have had to do of late, as it has been beyond the possibilities of the average home pocket book to hire the sewing done, and ready-made is not always satisfactory. Some counties have made several hundred of these forms the past year. Besides the women have received training in testing materials, use and altering of patterns, use of sewing machine attachments, care of clothing, selection of proper shoes, etc.

When a campaign of poultry culling

Virtue May Become a Vice

By Deborah

VIRTUES can be carried to such an extreme that they degenerate into vices is an axiom. Perhaps the one which most easily and quickly slips over the border is the virtue of criticism.

A little kindly, well meant criticism is one of the best stimulants to growth. But it is seldom a critic can remain just a kindly critic. It is so easy to slip over the line and become a chronic fault finder, from whom Heaven preserve us.

One such pest has almost broken up a community organization in a prosperous farming section. Her first suggestions were constructive, but whether her success in getting the organization to change some of its plans gave her an enlarged sense of her own importance, or whether she was at heart a born fault finder, who can say. At any rate she continued to pick flaws in the methods of work until the discouraged promoters of neighborhood enterprise are all ready to give up.

Probably this woman has done no more harm, though, than her neighbor who finds fault with her family. Every woman knows that no husband is perfect, no children faultless. But why be forever telling them about it? Psychologists tell us that the best way to build up is by praising virtues rather than by stressing faults. Yet this woman—and she has many copies—

almost never mentions a good thing about any of her family, but continually harps on their shortcomings.

That woman is giving her children a reputation they will have hard work living down. They are already looked upon in the community as future bad citizens, when as a matter of fact they are only normal, average children. No child ever overwhelms its parents with gratitude for its daily care. Yet because these children are not constantly thanking their mother for their bread and butter, she refers to them as monsters of ingratitude. And where is the child who hops out of bed in the morning and rushes to mother, clammering to be given work to do? I've yet to see a healthy boy or girl who voluntarily offered to do chores or wash dishes, until months of habit had made the job seem natural. The propensity of children is to dash out to play, and if they don't whine and protest when you dragged them in to work, you'd think there was something the matter with them. Now, wouldn't you?

Yet, because this woman's children are healthy young animals and object to being broken to harness she bewails the fact that her children are lazy and idle. Bewailing at home would be bad enough, it would go far towards making the children lazy, but to tell their faults to the world is little short of criminal.

is put on in a county, great saving of time and feed are the results. In one county especially, the home demonstration agent more than saved her salary in this work alone.

I have recently urged the farm bureaus to allow part of the space taken at a county fair exhibit to be devoted to the home interests—arrange for a home convenience exhibit, a selection of labor-saving devices—small utensils, sewing exhibit, or a model kitchen, and have someone in charge to explain the points to be brought out. All of this work proves to be a big factor in making agriculture respected, both by those participating and the looker-on.

I recently attended a county annual meeting where the attendance was at least half women. I found those women just as interested as the men, they understood and participated in the business session and both enjoyed the reports of their agents. The morale of the meeting was of the highest type, one feature that cannot be overlooked when considering woman's part in the farm bureau.

NORWAY ALLOWS WOMEN TO PREACH.

IN America where women do everything they choose to do we have long been accustomed to women preachers. Not long ago in Norway an uproar was caused by a woman appearing in the pulpit of the Norwegian state church at a Sunday evening service. Objectors cited a law which forbids women to preach at public services, but supporters of Fru Marta Steinsvik, the preacher, pointed out that the same law said theological students might preach, and that Fru Steinsvik is a theological student. The Norwegian Women's National Council took steps to secure a law which would grant women the right of ordination, and the law was unanimously passed.

TO EDUCATE WOMEN VOTERS.

PROBABLY no new body of voters at any time in the history of the world ever felt its need of education along matters politic so keenly as the newly enfranchised women of America. Even the women who did not want the vote, now that they have had it given them, are anxious to cast their ballot for the right. Party ties will bind in some cases, but as a rule woman everywhere wants to vote for the good of the country rather than for the good of the grafters. To do that she must know all about every measure which comes up, and about the men who will sponsor it.

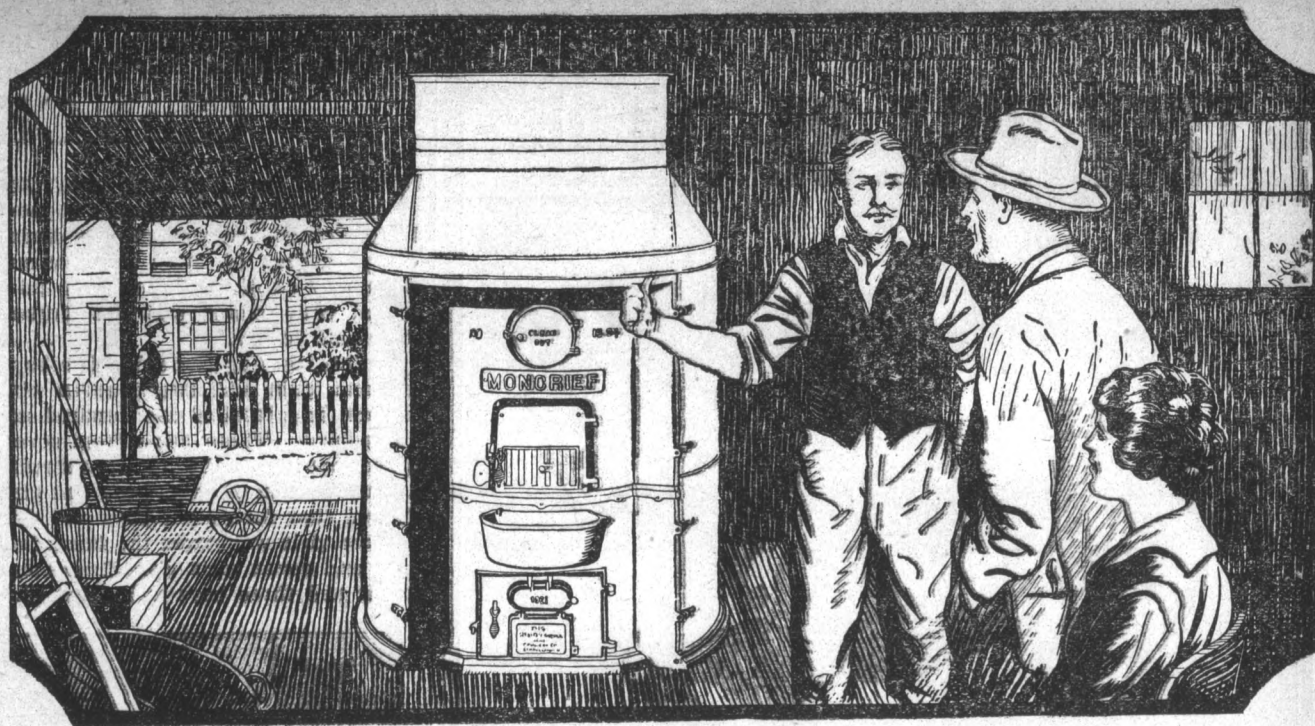
The League of Women Voters has been organized to give just this information. It is non-partisan, aiming to tell the truth no matter who it helps or hurts. Michigan headquarters are in Detroit, with Mrs. Wilbur F. Brotherton at the head. The plan of the league is to send out educational literature to members, working through local organizations, wherever possible.

If there is no local organization in your neighborhood you can join the state league and secure literature through it.

HOUSEHOLD HINTS.

To clear the air of a room put a lump of camphor in a saucer and apply a very hot poker to it. This will cause strong fumes, which cleanse the air speedily and at the same time act as a very powerful disinfectant.—Mrs. J. J. O'C.

When cooking cranberries, add a pinch of soda when first put on to cook. Allow them to cook a minute or two, then drain, add fresh water and sugar and finish cooking. Cooked in this way, they have a better flavor and require less sugar.—Mrs. L. L. G.



The Contrary Wise Man

What seems to be contrariness in some people often turns out to be forehandedness. Just now most everybody is thinking about keeping cool. The wise man is thinking about keeping warm---next winter.

Install a Moncrief Pipeless Furnace now, when you don't need it, and you are sure to have it when you do. Your Moncrief dealer can give the job of installing the extra care and attention that he would like, but which are impossible later when you are in a hurry to get your Moncrief up and going.



MONCRIEF PIPELESS FURNACE

Any time is a good time to make a good investment. A Moncrief Pipeless Furnace is a good investment that will last you a lifetime. For every dollar's worth of fuel it will yield you twice the heat and comfort that you get from heating stoves—and more than you can ever get from a pipeless furnace with casings of ordinary size.

It is the supersize casings of the Moncrief that deliver a superabundance of warm air all over the house—that rid the

floors of cold air drafts. This big slow moving air circulation is agreeably and uniformly warm, not hot in one place and cold in another.

The large Moncrief water pan always insures comfortable and healthful humidity.

Step in and see your Moncrief dealer. Ask him to explain the ten big features of the Moncrief Pipeless Furnace, including the two-piece straight side firepot, one-piece feed section and the long fire-travel radiator. Write us and we will tell you who he is if you do not already know him.

Manufactured by

THE HENRY FURNACE & FOUNDRY CO.,
CLEVELAND, OHIO

DEALERS: Many desirable territories are still open. Write for the details of the Moncrief Proposition.

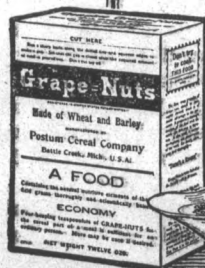
This food builds strength

Maximum nourishment with no burden to the digestion is secured from that famous food—Grape-Nuts.

The nutriment of wheat and malted barley, from which Grape-Nuts is made, builds strength and vigor—and delights the taste.

"There's a Reason" for Grape-Nuts

Sold by all grocers



LIGHTNING RODS

Exclusive agency and quick sales to Live Dealers selling "DIDDLE-BLITZEN RODS". Our copper tests 99.96% PURE. Write for agency. Prices are right. L. D. DIDDLE CO., Marshfield, Wis.

Airedale Pups From registered A. K. C. stock of the Goring strain. Make fine watch dogs for poultry and farm homes. Pedigrees furnished. Males \$25. Females \$15. R. G. KIRBY, R. I., East Lansing, Mich.

COAL FARM BUREAUS, GRANGES and FARMER ASSOCIATIONS get our low carload mine price on "BLUE RIBBON" soft coal and save money. Agents wanted. THEO. BURT & SONS, Melrose, Ohio

Trunks, Bags, Suitcases. Buy from factory direct. We will save you money. Send for free catalog. GEM TRUNK and BAG FACTORY, Spring Valley, Ill.

BURN GAS IN Your Coal or Wood Stove

Why chop wood, carry coal or sift ashes? The **UNI-METE** makes its own gas from common kerosene oil. Greater heat—less cost. Fits any stove. Attached in 5 minutes. Satisfaction guaranteed.

AGENTS Write quick for amazing offer. Big money. Exclusive territory. FREE. Acorn Brass Mfg. Co., 863 Acorn Bldg., Chicago

Barn Paint \$1.35 Per Gallon

Get factory prices on all paints. We guarantee quality. We pay the freight. FRANKLIN COLOR WORK, Dept. M, Franklin, Ind

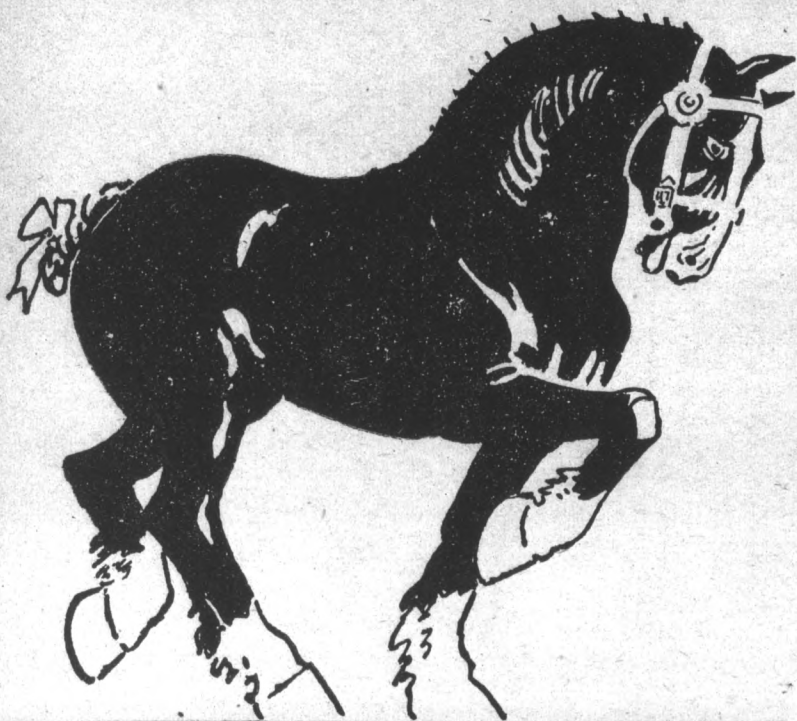
Trained American Fox Hounds Rabbit and Skunk dogs all ages. Send stamp. W. E. LECKEY, Holmesville, Ohio

Farms and Farm Lands

Productive 190-Acre Farm With Horse, Crops, 10 Cows and Calves, machinery, tools, vehicles, harnesses, etc., everything waiting yield big returns; near RR town, advantages; dark loamy fields; spring-watered pasture 20 head; 500 cords wood, 50,000 ft. timber; 50 apple trees; pears, cherries; good 2-story house with running spring water, delightful view; fine 15-cow barn, garage, tenant house; owner retiring \$2500 takes everything, easy terms. Details page 17 illus. Catalog 1100 Bargains. FREE. STROUT FARM AGENCY, 314 BCFord Bldg., Detroit, Mich.

WESTERN MICHIGAN FARMS Improved and unimproved; ranches, grazing areas, colonization tracts. Noted fruit region, general farming, dairying, etc. Exceptional marketing, social and transportation facilities. Illustrated booklets free. WESTERN MICHIGAN DEVELOPMENT BUREAU, Dept. 26, Grand Rapids, Mich.

THEY WILL BE THERE



Greatest Premium List on Record



MICHIGAN STATE FAIR

DETROIT

10
DAYS

Septemeber 2-11

10
NIGHTS

M. A. C. Entertains State Club Champions

THE fact that Boys' and Girls' Club work is becoming more and more firmly established was proven during the gathering of state and county champions at M. A. C. for their third annual club week," said Mr. Turner, state club leader.

To this meeting came fifty-five boys, fifty-one girls and twenty-seven club leaders, or a total of one hundred and thirty-three. These came from seventy-six counties in the lower peninsula. A classification of these boys and girls showed that forty-eight boys and thirty-three girls were from the farm; four boys and seven girls were from small towns and three boys and seven girls

club leaders and handicraft and hot lunch club work, second in garment-making, club work and gardening, third in canning, bean and calf club work, fifth in the number of county club agents, eighth in corn clubs, ninth in potato work, twelfth in pig club work, and thirteenth in sheep and twenty-second in poultry clubs.

MICHIGAN TEAM FOR INTERNATIONAL CONTEST.

PREPARATIONS are being made by R. A. Turner, state club leader, to send another team of Michigan boys to the international club judging con-



The Garden Demonstration Interested the Club Workers.

were from the city. The average age of the club members was sixteen.

These young folks spent over four busy days listening to lectures, watching demonstrations and doing work along lines in which club workers are interested. This included work in basketry, poultry, cooking, garment-making, stock judging, care of farm crops, art work, gardening and potato growing.

Entertainment was furnished them by the college through the means of a "Get Acquainted" party, a picnic, club movies and a banquet. The program also included time for games and swimming.

After the "feed" at the banquet, there was given a very interesting

test at Atlanta, Ga., late in October. The record attendance of fourteen state teams present last year will be shattered during the present season, it is said. States from Michigan to Florida and from New York to Washington are getting ready to enter. Several of the Canadian provinces are warmly interested and the little Island of Guam, far across the Pacific Ocean, is reported as determined to be in the scrap either this year or next.

Continuing the policy established last year, the Southeastern Fair is offering as prizes seven trips with all expenses paid to the Royal Live Stock Show in England. Twelve rings of live stock are to be judged, which includes Guernsey, Jersey, Holstein-



Every One a State Champion. It Looks as if Being a Champion Was Serious Business.

program which was arranged under the general heading of "Let's take a ride in the 4-H Clubmobile." Miss Marjorie Place, of Adrian, spoke on the "Starter;" Miss Viva Osborn, of Coldwater, on "Training Future Drivers;" Miss Roberta Barclay, of Scottville, explained the Clubmobile Hot Lunch; Don Shepard, of Charlotte, told of "Knocks and their Benefits," while Miss Rose Wessinger of Milford, Howard McPherson, of Wyandotte, and Miss Agnes Hahn, of Mt. Clemens, spoke on the subjects of "The Supply Station," "Get Out and Get Under," and "Making Difficult Turns," respectively.

At this conference many facts were brought out which showed Michigan's prominence in Boys' and Girls' Club activities. It was shown that Michigan was first in the number of local

Friesian dairy cattle; Aberdeen-Angus, Shorthorn and Hereford beef cattle; Shropshire and Southdown sheep, and Duroc-Jersey, Poland-China, Berkshire and Hampshire hogs.

The club boy receiving the highest score receives a free trip to the Royal. Three trips go to the state team of three club boys attaining the highest total score. Accompanying the team will be the county agent coaching the high man, the state club leader from the state represented by the winning team, and the official from the department of club work in the Washington office whose territory is represented by the winning team.

In addition it is announced that in the 1921 contest a prize of \$300 will be awarded to the state team ranking second, and \$200 to the state team ranking third.

Religion Along the Road

Our Weekly Sermon—By N. A. McCune

THE other day we took to the road. It was a good road, too, and there were people aplenty who were using it. We hadn't gone far, until we began meeting these pilgrims of the highway. Whole families were going a vacationing, with the front bumper carrying a bed, the rear bumper carrying another bed, and the running-boards groaning under tent and cooking outfit and eatables. It is all very interesting, and very significant. The Bible has much to say about highways and roads. The Holy Land was between two great portions of the ancient world, and the roads which connected them ran through it. Where Christ lived, at Nazareth, there passed by a famous trunk road, where the caravans of camels were continually passing. In his day, too, the Romans had built splendid roads connecting all the large cities. St. Paul traveled these roads and knew hundreds of miles of them. In fact, the Italians will tell the tourist now that the very same flagstones in the pavement on which St. Paul walked, are there today. Good roads make travel possible, they facilitate the growth of schools, towns and churches. In olden times a road was prepared in advance, when a king was traveling. When no road existed, one was built. But now the highways are constructed, not for favored royalty but for the use of all men.

There is a vast amount of religion along the roadway. If anyone complains that he does not see it, it is because he is not looking for it. The other night we were driving north, making for a town some forty miles away. A big car came honking up behind, and began passing us. The driver slowed up and shouted, "stop, stop." "Say," said he, as soon as the two cars came to a standstill, "They's somethin' the matter with your batt'ry. I been followin' you for three or four miles, honkin' for you to stop. They's somethin' the matter with your batt'ry connections. You got a short somewhere. Every time you go over a bump they's fire flashes out, under your car. It might set your car afire."

"Well, I'm mightily indebted to you for lettin' me know about it, but what can we do about it?" "Well, mebber we can find it and wind it with sticky tape. Got any?" "Not a bit." "I got some." The offending "short" was found and fixed. "I guess the only way I can repay you for this, will be to pass it on to someone else." "You bet, that's the idea."

IT wasn't long until we had the opportunity. About fifteen miles from a large town, a woman got out of a large new car and hailed us. "Are you going to C—?" "Yes, ma'am." "Will you please go to the depot there and tell the baggageman there that we are stuck? There isn't any 'phone around here, and it's getting dark. The car won't go, even on low, and it heats up awful." Promising to see that baggageman as soon as we got to the town, we went on. It seemed like an unconscionable trick for that big car to act up that way, so far from town. Why didn't he have his spells of ill-temper nearer home? It was a very grateful baggageman, who stopped loading trunks and seized my hand when I told him of his wife, fifteen miles from town, waiting for him, in the dark. I was sorry I could not have fixed up her engine for her, but I was glad that I had been able to pass on that bit of neighborliness that the man had shown when he told me about my battery wires.

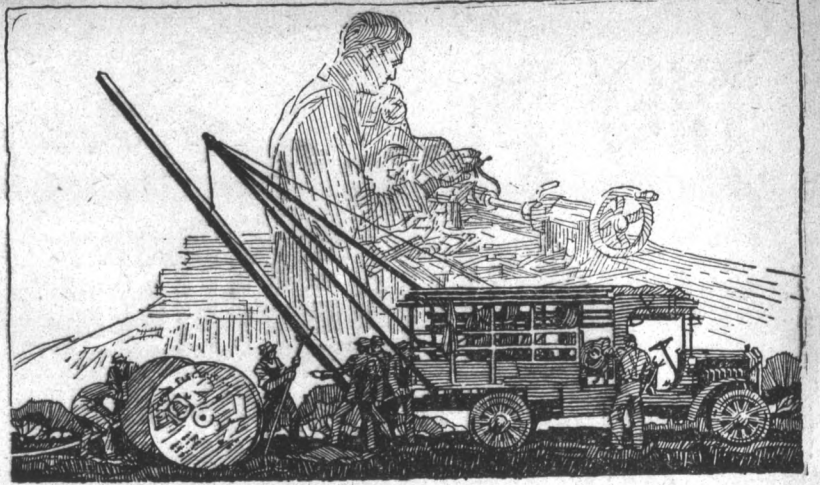
There are sermons all along the

way. Keep your eyes open and you will see them. No, perhaps you won't see the sermons, but the texts are there, and good ones. "Don't drive in the rut," was the sign that appeared over and over, in one county. That is a great text, I would say. Don't drive in the rut. If a rut is deep enough, it is a grave, and when a man keeps on driving in the rut and making it deeper, he is digging his own grave. When you drive in the rut, someone else will, and after him someone else. Some communities have been driving in the rut so long, it is three feet deep and they cannot get out. Today I saw the special train that is traveling through the state, urging the use of better sires. If you had seen some of the scrubs that have been taken in exchange for pure-bred sires, you would learn how fearfully deep in the rut some farmers get. Some of the scrubs that have been collected would hardly make decent mincemeat. Rural churches get into the rut very easily. Sometimes they get in so deep that it is impossible to see out, and the church has to close. And the individual can get into the rut.

And the state of Michigan preaches some pretty good sermons. The main roads are numbered. One reads frequently, "Slow—curve." It is most wise to go slow on the curves. A man thought he would not do so, a few weeks back. He drove fifty miles an hour on a curve. His wife sat beside him. Her funeral took place three days later. There are many curves in every life. Making them at top speed is not well. We all know people who say, "If I had invested so and so, and I would be on easy street today." "If I hadn't done as I did, I would have kept my health." Remember the text of the state highway department, and go slow on the curves. Remember also that there is a divine companion who knows the roads and the curves. Traveling with him, one is certain to arrive at his destination.

THE road is bound to be bad, in places. When one is moving along over a fine smooth highway, and wondering if it's like this all the way, suddenly his query is answered. It is not like this all the way. He finds himself laboring up some fearful sand hill, his engine heated to the limit, and making but small headway. One night about nine o'clock we saw two headlights, with the dimmers on, beside the road. Coming up, we found an auto camp, the family all in bed except father, who was stalking up and down outside, like a sentry. "How is the road, from here on?" "From here to S—it's awful. Sand and ruts and hills. After that, you strike the gravel road, and it is excellent." Said someone in the car, "That man was a preacher. I could tell by the way he gestured, and the tones of his voice." "Well, whatever he was, he prepared us for what was coming." And the road of life is rough, more frequently than the state highway. To have a way of traveling then, is a great art. And that is what the Christian religion will do for the believer. There is a way through.

And after all, it is what a man is that counts, not the make of car he drives, whether he has a colored chauffeur, or whether his car is this year's model or not. Tradition says that St. Paul stood by the roadside while Nero passed by, with chariots, outriders and soldiers. But Paul was none the less a man for traveling afoot, nor Nero more of one, for all his display. "Only what thou art in thyself determines thy value." A man can be a prince, and drive a Ford.



Tools of Industry

In industry, art, science, in fact in all kinds of work, good results require good implements kept in good condition.

If the right sort of implement is important to an individual workman, efficient tools for industry and commerce are a vital necessity to the nation.

Telephone service is one of the tools of American industry and commerce in most common use and upon which much depends. The American public cannot afford to let this tool get dull.

To provide over twelve million subscribers with telephone connection; to transmit the vibrations of the human voice thirty million times a day and from any point to any other point throughout the land, demands an expensive mechanism of the highest order of scientific precision, and an efficient organization.

It is the aim of the Bell Telephone System, with the cooperation of the public, to be the most dependable tool of American industry.

"BELL SYSTEM"



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy, One System, Universal Service, and all directed toward Better Service

WINDMILL PRICES REDUCED

For the second time this year the prices of the Auto-oiled Aermotor have been reduced. We are glad to give our customers the benefit of the lower costs of raw material, and of every other saving which our enormous output enables us to make. At the present low prices of Aermotor goods there is no reason why anyone should postpone buying. You can now buy an 8-foot Auto-oiled Aermotor and heavy 33-foot tower for \$92.00 f.o.b. Chicago. Prices of all other sizes are proportionately low. Why climb a tower to oil an old windmill when the self-oiling Aermotor, which runs for a year with one oiling, can be bought at such low prices?



Write today for Circular

AERMOTOR CO.

Chicago Des Moines
Kansas City Minneapolis
Oakland

CLEAN SEED

For Bigger Profits

Improve the quality and selling value of your wheat, oats, barley, etc., by cleaning and grading the seed before planting. It pays BIG. Removes all weed seed, chaff, shriveled grains. Use the reliable

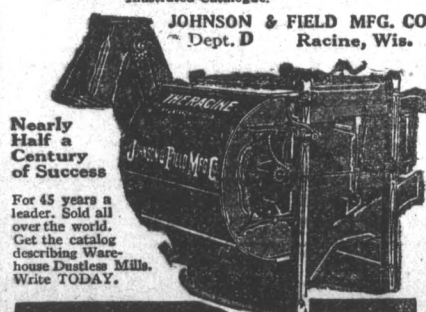
RACINE FANNING MILL

Grades seed corn also. A perfect working machine, easy to run and will last a lifetime. If not sold by your dealer, write us for Special Proposition. Be sure to send for our Big Illustrated Catalogue.

JOHNSON & FIELD MFG. CO.
Dept. D Racine, Wis.

Nearly Half a Century of Success

For 45 years a leader. Sold all over the world. Get the catalog describing Warehouse Dustless Mills. Write TODAY.



POTATO BAGS

Sound and free from holes. Sold direct to growers at wholesale prices. WRITE LINCOLN BAG CO., Dept. D, Springfield, Ill.

This Log Saw

\$125.00 F.O.B. K.C.

A dependable fast cutting Log Saw at the right price. Powerful 4-cycle engine with two flywheels gives steady power, sawing logs or trees, or for belt work. Lower Control. Force Feed.

Cuts Any Size Log

Same Rig Saws Down Trees. By ordering Tree Saw parts, at small cost extra, Log Saw makes complete Tree Saw. Write for Saw Catalog, FREE.

WITTE ENGINE WORKS
2194 Oakland Ave., - Kansas City, Mo.
2194 Empire Bldg., - Pittsburgh, Pa.



MINERAL HEAVE COMPOUND FOR HEAVES

Booklet Free \$3.25 Box guaranteed to give satisfaction or money back. \$1.10 Box Sufficient for ordinary cases. (Includes War Tax). MINERAL HEAVE REMEDY CO., 463 Fourth Ave., Pittsburgh Pa.

A Quantity of Winter Vetch and Rye \$3.00 a hundred lbs. sacks included. F. O. B. New Haven. Samples on request. Wm. GOTTSCHALK, R. 1, New Haven, Mich.



MULE-HIDE
"NOT A KICK
IN A MILLION FEET"
**ROOFING
—AND—
SHINGLES**

Reg
U.S. Pat Office

THERE'S a MULE-HIDE
Roofing for every require-
ment. All add to the desirabil-
ity of the building they cover.

There's a discriminating dealer in
your town. He will show you.

The Lehon Company
MANUFACTURERS
44th to 45th St. on Oakley Ave., Chicago
Visit the MULE-HIDE exhibit at
the State Fairs and get a crayon.

POULTRY

Pullets Pullets

We still have a few hundred of our bred to lay single comb White Leghorn Pullets 8 to 10 weeks old at \$.75.

Why not sell your cull hens and replace them with our pullets at practically the same price.

These pullets are produced from our own stock and are fully guaranteed.

Choice breeding cockerels and yearling hens.

Macatawa White Leghorn Co. Inc.

L. Vredeveld, Sec.
R. 1, Holland, Mich.

APRIL COCKERELS
Winter Laying Pullets

Now over three months old. Anconas, White Leghorns in two grades, Brown Leghorns, Black Leghorns, Buff Leghorns, Rocks, Reds, Wyandottes and Black Minorcas. Write for prices.

Crescent Egg Company, Allegan, Mich.

YEARLING HENS

White and Brown Leghorns and Anconas; also a number still of 8 and 13 weeks old Pullets. Also a limited number of White and Barred Rock Pullets. Cockerels—White Rocks; White Wyandottes; S. C. Reds; S. C. & R. C. Brown and White Leghorns; and Anconas.

1 pair two year old Gray Toulouse Geese. Write for description and prices.

STATE FARMS ASSOCIATION,
Desk 1, Kalamazoo, Mich.

CHICKS

Send your order in early for 1922 delivery. Our prices are always reasonable. We give you a square deal.

ROYAL HATCHERY,
R. 2, Zeeland, Mich.

Barron White Leghorn pullets and hens. The great egg producers known. Large free range birds. Robt. Christophel, R. 4, Holland, Mich.

DAY-OLD CHICKS

\$16.00 per 100 and up. Hatching eggs, \$2.00 to \$15.00 per setting and \$9.00 to \$15.00 per 100, from 25 varieties of pure bred, farm raised fowls: Chickens, Geese, Ducks, Turkeys and Guinea. Price list and circular free. Plenty of nice breeding stock. Book now for early spring delivery.

WILMINGTON HATCHERY & POULTRY CO. Wilmington, 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.



**\$11 a 100
and up.**

Postage PAID. 95% live arrival guaranteed. FREE feed with each order. 40 breeds chicks, 4 breeds ducklings. Select and Exhibition grades. A hatch every week all year. Catalogue free. Stamps appreciated.
NABOB HATCHERIES, Gambier, Ohio

S. C. Black Minorcas Eggs from No. 1 pen will be \$1.50 per setting of 15, for the balance of the season.
R. W. Mills, Saline, Mich.

USEFUL ANCONAS June and July chicks. Lay before cold weather. Eggs half price \$8.50 per 100, \$3.50 per fifty. Hogan tested, beauty and utility combined. Specialty breeder S. C. Mottled Anconas. Send for booklet. (Useful facts about Useful Anconas). It is free. College View Farm, R. 3, Hillsdale, Mich.

Whittaker's R. I. Reds

Michigan's Greatest Color and Egg Strain. Chicks all sold. 50 good cock birds, either comb, at bargain prices for quick sale. Catalog free.
INTERLAKES FARM, Box 39, Lawrence, Mich.

HEASLEY S. C. Buff Leghorns, eight-week-old pullets and cockerels and breeding hens at bargain prices. Bred from officially certified egg bred winners, original Dr. Heasley flock.
Henry DePree, R. 8, Box 137, Holland, Michigan

PNG. and American W. Leg. \$8 per 100; Brown Leg. \$8 per 100; Mottled Anconas \$10 per 100; Barred Rocks \$12 per 100; Broilers \$7 per 100. All Single Comb. Safe arrival guar. Order direct from road or send for catalog. Knoll's Hatchery, R. 3, Holland, Mich.

RHODE ISLAND WHITES win over all breeds at the egg laying contest. 30 eggs \$5; 50 \$8; 100 \$15 order from this ad. Some chicks.
H. H. JUMP, R. 5, Jackson, Mich.

Single Comb Buff Leghorn cockerels, April and May hatched. Large lively fellows. Noted laying strain.
Willard Webster, Bath, Mich.

White Leghorns English and American strains. Choice cockerels, hens and 8-week pullets \$1.40 each for 10 or more; special prices in 100 lots. Will ship C. O. D.
FRANK HINE, Box 6, Comstock Park, Mich.

Top Quality Cockerels Minorcas, Houdans, Spanish, Tyron Poultry Farm, Fenton, Mich.

Pullets and Breeding Stock 8 varieties, also ducks and geese. Send for prices.
BECKMAN, 26 E. Lyon, Grand Rapids, Mich.

WHITE WYANDOTTES 207 egg average; cockerels \$5 each, 3 for \$14, 6 for \$25.
FRANK DeLONG, R. 3, Three Rivers, Mich.

White Wyandotte and Barred Rock eggs, half price balance of season.
HOWARD GRANT, Marshall, Mich.

Yearling Hens for sale. White and Brown Leghorns and Anconas. Prices reasonable.
M. J. Wyngarden, R. 4, Zeeland, Mich.

Blackhead in Turkeys

By R. G. Kirby

A POULTRYMAN from California reports good success in preventing blackhead and curing it in the following manner: The sick turkeys were given fluid extract of ipecac. The dose consists of ten drops and is given three times per day for three days, then two times each day for two days and then one dose on the following day. This practical poultryman, a Dr. H. M. Wedgeworth, not only claims to have cured birds sick with blackhead, but he experimented carefully and found he could prevent blackhead among healthy turkeys by the same remedy.

As a preventive remedy he used powdered ipecac and placed a teaspoonful in the mash twice each week for each twenty turkeys. Blackhead in turkeys has been considered an incurable disease and it has caused turkey breeders to discontinue the business in several sections. Often home remedies have been advanced as cures and soon after they have very promptly failed to control the disease. The writer believes the ipecac treatment as outlined above is surely worth trying as turkey owners in this state often suffer severe losses in their flocks because of the trouble which is commonly called blackhead.

Dr. H. W. Graybill, of the New Jersey Experiment Station, brings out some interesting turkey facts in Bulletin 37. He believes that artificial incubation and brooding of turkey poult will have an important influence in controlling blackhead in turkeys as the old birds can transmit it to the young. The turkey eggs can be incubated at one hundred and three degrees the same as hens' eggs. Dr. Graybill destroyed any germs that might be on the turkey eggs by first washing lightly with water and then leaving them for thirty seconds in a five-tenths per cent aqueous solution of mercuric chloride.

Dr. Graybill also claims to have had good success in raising both old and young turkeys in rather small enclosures. The writer of this article believes that it might be done as a scientific experiment, but rather doubts if large numbers of turkeys can be raised at a profit on a small range because of the large amount of expensive feed that would have to be furnished them if they made a rapid and vigorous growth.

In many sections of this state the grasshopper pest is serious and the turkeys will thrive where hoppers are plentiful, thus turning a pest into at least a little profit. On farms where no turkeys have been raised the soil will probably be clean and free from blackhead germs. The beginner on such a farm can obtain vigorous unrelated breeding stock and often keep it free from blackhead for a long time. Possibly the ipecac treatment for blackhead may prove quite valuable. The owner of a valuable flock is willing to try almost anything when his birds become sick.

SOME POULTRY POINTERS.

Eggs preserved in waterglass will be found nearly as good as fresh eggs when they are used next winter. Farmers can preserve eggs now for home use and cash in on the fresh eggs next winter when eggs are high. Consumers who do not preserve spring and summer eggs will pay a good tribute for their carelessness when they buy eggs next winter. The eggs placed in waterglass should be clean, fresh and infertile. Plenty of oyster shells should be before the flock to insure hard shells on the preserved eggs. Molting hens require liberal feeding

to quickly produce a coat of new feathers and return to laying condition. Sunflower seeds have been found of great value at that time. At least ten per cent of beef scrap in the mash is desirable at molting time. It seems expensive to feed beef scrap to hens that are not laying, but experience proves that the sooner they are through the molt the better for the health and egg production of the flock. Early molters are not the best layers. But hens which have been brooding chicks may go into a partial molt before starting to lay again. Do not cull them out if they have the capacity to be good layers.

During hot weather try substituting soaked oats for a part of the corn in the ration. These soaked oats are relished by our hens much more than dry oats. When soaked the kernels swell up more like large plump kernels of wheat. The growing stock when reaching broiler size will eat lots of soaked oats and they are a good growing feed. Oats at the present price can certainly be used to better advantage in the summer ration of the farm flock than the large quantity of corn which is often used.

Growing stock on the roosts can be protected from lice by spraying the roosts. Teach them to roost early and it will help to prevent colds. Colds usually come from overcrowding in the corners of colony houses or brood coops. Early roosting is sometimes a cause of crooked breasts but it is better to have a few crooked breasts than birds with colds.

Hens of the American breeds fatten easily and it often pays to place them in good market condition, even at the present feed prices. There is no demand for skinny poultry and the producer can expect little success if such birds are sold. But the hen that is bagging down with fat is not liked by the best customers. There is a happy medium that about describes the prime market fowl.—R. G. K.

GOOD ROOSTER IS HALF THE FLOCK.

THE value of the good rooster is shown when the eggs are gathered. Interesting experiments carried on at the Wisconsin College of Agriculture are showing the value of a male of high-producing strain.

"It is not sufficient to know that your male bird came from a good flock," says Duncan H. Reid of the poultry division. "Trace his ancestry and be sure that there are high-producing hens behind him."

A university hen No. H-160 with records of 232 eggs in her first year, 180 in her second, and 148 in her third, was mated with No. C-2410 the son of a hen producing 252 eggs in her first year. From this mating four daughters were secured, three of which laid over 250 eggs in their first year. Their records respectively were 253, 261, 263 and 226 eggs. This same hen, No. H-160, was then mated with C-2404, purchased from a good flock but with no definite record of his ancestry. From this mating two daughters were produced with records of 178 and 187 eggs respectively.

Records over longer periods of time are being kept at the university, and some very promising results have been obtained. Hens No. H-337 has produced 623 eggs in three years. No. H-32 has laid 676 eggs in four years. The highest yearly record is 284 eggs.

In one county, sixty-eight culled hens kept five days laid just one egg. At least a fifth of Michigan's flocks are of that kind. Cull 'em!

The U. P. Farmers' Round-Up

THERE was never a more interested crowd of farmers together in the upper peninsula than at the Farmers' Round-up held at Chatham during the week of August 8-13. There were over two thousand people who participated in and enjoyed the program.

The principal part of the program was the Boys' and Girls' Club camp, which started August 8 and ended on August 11. There were over one hundred young folks in attendance who were in charge of State Club Leader R. A. Turner, A. G. Kettunen and Miss Barbaar Van Heulen.

Three days of this round-up were given over to special instruction in live stock and crops work. Mr. H. E. Dennison, dairy specialist of M. A. C., had charge of the dairy and hog demonstrations; D. L. McMillan, superintendent of the Upper Peninsula Experiment Station, gave instruction in sheep; G. W. Putnam, crops experimenter for the upper peninsula, explained the crops work, and J. E. Kotila, potato disease specialist, explained his line of work.

An excellent land-clearing program was given by Mr. L. F. Livingston, land clearing specialist. All phases of the land clearing work were in progress, consisting of stumping with power pullers, using dynamite, stump piling, and the plowing with teams and tractors. Three tractors, the Cletrac, Titan and Case, demonstrated plowing, harrowing, and discing.

A large parade was put on, with every department represented, the Boys' and Girls' Clubs leading the parade, followed by floats representing women's work, crops exhibits, land clearing work, club work, and live stock. This was followed by potato machinery, haying machinery, dairy live stock, and tractors. Home demonstration agents, in charge of Miss Aurelia B. Potts, gave a complete program for the women, featuring garment work, cold-pack canning and labor-saving devices.

Special interest was shown by the large crowds in the dairy work, farm crops and land-clearing demonstrations. The tractors, as usual, held the attention of a large number of the farmers.

The winners of the boys' and girls' judging contests were:

Russell Hartley, Iron county, winner of the dairy contest, receiving a registered Holstein calf.

Iver Peterson, also of Iron county, won the hog judging contest, receiving a pure-bred Duroc Jersey pig.

Toini Kamari, from Alger county, won the highest honors in the sheep judging contest, winning a pure-bred Hampshire ewe lamb.

Milton Corey, of Menominee county, won the pen of chickens of Barred Rocks, as a prize for the highest honors in the poultry culling contest.

The experiment station furnished coffee for the picnic lunches which were eaten in the station grove.

EXPERT STUDIES U. P. PLANT AND ANIMAL LIFE.

THERE is available no detailed and exact information regarding the resources in plant and animal life of the inland lakes of Michigan, yet these lakes are of great present or potential value to the people of the state. Professor John Lowe, of the Northern State Normal School, has been cooperating with the Upper Peninsula Development Bureau in securing such information as it is possible to obtain with the limited means at his disposal. Professor Lowe is a fish expert, and he desires personally to visit inland lakes to study upper peninsula fish.

Send for this free book about ARCOLA

The wonderful new Radiator-Boiler that warms the whole house with one economical fire

NO matter where you live, or how your house is heated, sit down today and send for this beautiful free book about ARCOLA.

You have never seen a heating plant anything like ARCOLA; it is a new and entirely different scientific development.

Does the work of half a dozen stoves

ARCOLA is Boiler and Radiator combined. Enough healthful hot water warmth radiates from it to keep a big living room comfortable in the coldest weather. American Radiators connected with it by small pipes warm the other rooms. The hot-water tank in the kitchen may be attached, supplying an abundance of hot water for washing and bathing—all you want and all the time.

Sounds almost too good to be true, doesn't it? Yet thousands of owners have tested ARCOLA in their own homes during the past two winters and have proved that its performance far surpasses our claims. In from three to five average winters ARCOLA will pay for itself in the coal it saves—and think of the comfort of having every room warm with an even temperature all the time instead of a house too hot in some spots and freezing in others.

ARCOLA means only one fire to tend; no dust; no gas; no smoke. It burns any fuel you want to use and burns only a little more than a single old-fashioned stove.

AMERICAN RADIATOR COMPANY

Makers of the famous IDEAL Boilers and AMERICAN Radiators
South Michigan Ave., Dept. , Chicago, Ill.
Branches and Showrooms in principal cities.



Merely clip the coupon and mail

The Heating Contractor near you is an agent for ARCOLA and can tell you how surprisingly little it will cost installed in your home. See him on your next trip to town. Meanwhile sit right down and send for your copy of the ARCOLA book. It answers all your questions.

It shows just how ARCOLA can be installed in a 4, 5, 6 or 7-room house without the slightest disturbance to the family. It contains the experiences of ARCOLA owners and is illustrated with reproductions of beautiful paintings in full color.

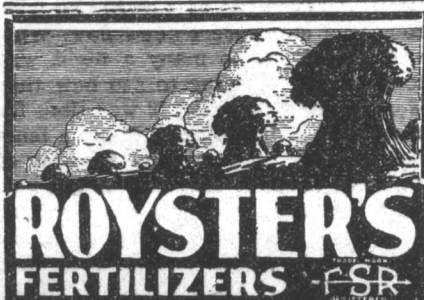
AMERICAN RADIATOR CO., Dept. F-3
816 S. Michigan Avenue, Chicago

By mail and without obligation, send me your free book about ARCOLA.

Name.....

Address.....

Town, State.....



Will Help You Lower Your Costs

The wheat-grower who wants more profit will find it by better methods of farming, making his land and his labor produce more. How to get the big yields that make for lower costs is interestingly told in "Wheat Growing for Profit" a book you may have by writing for it. Everything clearly and plainly described from preparing the land to the threshing. Scientific but practical.

---MAIL COUPON TODAY---
F. S. ROYSER GUANO CO.
Dept. B-15 Toledo, O.
Please send me your free Wheat Book.

Name.....
Address.....

Winter Spelt or Emmer seed for sale. Takes the place of bran in the dairy ration. Also splendid for horses, yields from 30 to 60 bu. per acre. I have raised in Cass Co. Mich for 30 years, guaranteed clean and ready to sow. 5c per pound F. O. B. cars here. Bags extra.
G. H. REDFIELD, Edwardsburg, Mich.

OTTAWA
1 1/2 H-P ENGINE IS Now only \$35.50
Other sizes 2 to 22 H-P at proportionally low prices.
90 Days Trial--10 Yr. Guarantee
Good engines at low prices because made in large quantities and sold direct from factory.
Stationary, Portable, Saw Rig, Kerosene, Gasoline
Most useful to choose from.
FREE ENGINE BOOK—Get our low prices before you decide on any engine.
OTTAWA MFG. CO.
1363A King Street
OTTAWA, KANSAS

Barrels for any Purpose



Wine Kegs
Apple Barrels
Tanks
Better Cooperage for less money.

Mail Orders Solicited

Sauer Cooperage Co.

2810-2856 Benson Ave., Detroit.
Phone Melrose 299
" 6185

\$54.50 PUTS THIS NEW MILL ON YOUR OLD TOWER
ALBION
Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only main Pitman bearing subject to wear. This is oilless, and easily replaceable. Govers by dependable weight without springs. Fits any 4-post steel tower. Why not shun your chores hours now with a good Windmill? This is your chance—an Albion direct from the manufacturer, fully guaranteed. Write today for catalog.
Union Steel Products Co. Ltd.
No. 528 N. Berrien Street,
ALBION, MICHIGAN, U. S. A.

Homespun: smoking or chewing tobacco 10 lb. \$2.50; 20 lb. \$4. Collect on delivery.
FORD TOBACCO CO., Mayfield, Ky.

Agricultural Limestone

BOAT AND RAIL DELIVERY
LEATHAM D. SMITH STONE CO.,
Home office and Quarries, Sturgeon Bay, Wis.
Docks—Muskegon and South Haven, Mich.
Michigan Representative
John Walsma, Grand Haven, Mich.

Natural Leaf Tobacco. Finest quality, 1919 crop
8 lb. \$1; hand picked chewing, 2 lb. \$1; postpaid
Hancock Leaf Tobacco Ass'n., Hawesville, Ky.

Good Clubbing Offers

OFFER No. 309.

Michigan Farmer, one year.....\$1.00
People's Popular Monthly, 1 year .35
Gentlewoman, one year25
Household Journal, one year..... .35

Total value\$1.95
All for \$1.55.

OFFER No. 310.

Michigan Farmer, one year.....\$1.00
Pictorial Review, one year..... 3.00
Woman's World, one year50

Total value\$4.50
All for \$3.40.

OFFER No. 311.

Michigan Farmer, one year.....\$1.00
Woman's Home Companion, 1 yr. 2.00
McCall's Magazine, one year..... 1.50

Total value\$4.50
All for \$3.25.

OFFER No. 312.

Michigan Farmer, one year.....\$1.00
National Sportsman, one year... 1.00
Everybody's Poultry Mag., 1 year .60

Total value\$2.60
All for \$2.05.

OFFER No. 313.

Michigan Farmer, one year.....\$1.00
Breeder's Gazette, one year..... 1.50

Total value\$2.50
Both for \$2.00.

Proper Heating at its Lowest Cost

Heating by the EMPIRE PIPELESS FURNACE method is proper heating—for it heats every room in the house to 70° even in the coldest weather and provides a perfect circulation of clean, pure air. It makes homes comfortable to live in. Our 60 years of experience and dependable GUARANTEE are your assurance of satisfaction with the EMPIRE PIPELESS heating system.



EMPIRE PIPELESS FURNACES are easy to install. They are strongly built to last a lifetime, and give more heat from the same amount of fuel than other furnaces. They are the cheapest in the long run to install.

WRITE for illustrated, descriptive booklet on the latest and most scientific one-pipe heating system, and the name of the "Red Cross" dealer nearest to you.

CO-OPERATIVE FOUNDRY CO.
Manufacturers of "RED CROSS" Stoves,
Ranges and Furnaces
ROCHESTER, N.Y. CHICAGO, ILL.

"RED CROSS"
EMPIRE
Pipeless Furnace

BREEDERS' DIRECTORY

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

THE HOME OF Imp. Edgar of Dalmeny Probably The World's Greatest Breeding Bull

Blue Bell, Supreme Champion at the Smithfield Show 1919, and the Birmingham Show 1920, is a daughter of Edgar of Dalmeny.

The Junior Champion Bull, Junior Champion Female, Champion Calf Herd and First Prize Junior Heifer Calf, Michigan State Fair, 1920, were also the get of Edgar of Dalmeny.

A very choice lot of young bulls—sired by Edgar of Dalmeny are, at this time, offered for sale.

Send for Illustrated Catalogue.

WILDWOOD FARMS
ORION, MICHIGAN

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

CLOVERLY ANGUS

Cows and Heifers Bred to
Blackcap Brandon of Woodcote 2nd
For Sale
GEO. HATHAWAY & SON, Ovid, Mich.

REGISTERED Aberdeen-Angus. Ten heifers, six
bulls from eight to fourteen months. Best of
breeding, the growthy kind that make good. Reason-
able. Inquire F. J. WILBER, Ohio, Mich.

Reg. Aberdeen Angus

bulls and heifers of the very best of breeding, from
12 to 15 months of age. For next 30 days will price
bulls at \$100.00. Real bargains. Inspection invited.
RUSSELL BROS., Merrill, Mich.

GUERNSEYS

From Windermere Farm

Carload of high grade young cows and bred 2
year old heifers. 7 of which are from Golden
Noble's Pride of Windermere whose grade daugh-
ters have proved extra good producers. Also some
good reg. bull calves 2-11 months. Priced to sell.

L. L. Barney & Sons,
Watervliet, Mich.

GUERNSEYS

Bull calves for sale. Sired by Anton's May King that
sold for \$7,000. Farmers prices and guaranteed to
please. GILMORE BROTHERS, Camden, Mich.

Registered Guernsey Bulls for sale. 2 sired by
Gay Boy of Halcyon. 1 sired by Avon-
dale's Choice. All one yr. old, ready for service. 1 born
July 26th 1921, sired by Avondale's Choice. All beauti-
fully marked brown and white. Address Dr. W. R. Baker
4800 Fort St., West, Phone West 629, Detroit, Mich.

Registered Guernseys—\$100 buys the last
service—it will pay you to find out more about this
fellow. No reactors—no abortion—a clean herd.
J. M. WILLIAMS, No. Adams, Mich.

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

GUERNSEYS. Federal Accredited Herd No. 9407.
Four grandsons of Carrie Hillhurst, record 814
lbs. b. f. A. A. Class, out of cows now on test. Priced
right. Best producing cow in Jackson Co., 6 yrs. old.
\$500 gets her. G. W. & H. G. RAY, Albion, Mich.

For Sale Two reg. Guernsey cows four years old,
just fresh. Two Reg. heifers, one year-
ling, and one two months old.
PERCY ANDERSON, R. 3, Fremont, Mich.

Guernsey Females of superior breeding, at reduced
prices. Tuberculin tested. Send for
sale list to day. G. A. Wigent, Watervliet, Mich.

WinnWood Herd Registered Holstein-Friesian Cattle

We breed them to sell. If you
are looking for seed stock, we
have it.

John H. Winn, [Inc.]
Rochester, Mich.

"Top Notch" Holsteins

Buy a "milk" Bull of Quality from the Breeders
of the world's only cow to produce 800 lbs. milk in 7
days, having an 800 lb. daughter.
Our herd is rich in the blood of Colantha 4th Jo-
hanna, the only cow that ever held all world's records
in every division from one day to one year at the same
time. She produced 661.70 lbs. milk in 7 days. We are
offering for sale a bull, whose dam exceeds this record
by over 7 1/2 lbs. in 7 days.
His dam's records are:—
Milk 1 Day 100.1 lbs.
Milk 7 Days 659.5 lbs.
Butter 7 Days 26.31 lbs.

His name is
KING VALE CORNUCOPIA WAYNE, No. 312590
Born February 6, 1920
His dam and sire's two nearest dams average
Butter 7 Days 33.02 lbs.
Milk 7 Days 607.3 lbs.

Handsomely marked about one third white.
\$250.00 f. o. b. Howell.
McPHERSON FARMS CO., Howell, Mich.
All herds under U. S. Supervision.

A Sheep Raiser's Story

By E. L. Vincent

THIS is the way he told it. I have no doubt it might be duplicated in the experience of a good many farmers who are lovers of sheep, especially since the late unpleasantness over in Europe.

"I have always kept sheep. My father before me used to keep them. How far back we could run and find a race of shepherds I do not know, but I fancy it has been in the blood for a long time, for my father's family line runs clear over into the old sheep country across the water.

"When the sheep business began to go bad it hurt me, but I kept hoping the big men down at Washington would not completely desert us, but would give us the protection we needed for our meat and wool. They did not, though. I suppose there was so much else to do that the congressmen forgot about the sheep on the pastures of their own country. Queer, though, that they could not see that the farmers of this country are its backbone and that when things go wrong with them, they are in a bad way everywhere.

"There came a day when wool went down next to nothing. No market for it. Market for wool from everywhere else, none for our own folks. And I saw a good many of my neighbors sell off their sheep, or more than half give them away, I ought to have said. Those who had to have money sold their wool for the little they could get. Some stored it and kept thinking congress sure would think of us and help us out.

"One day I went down and looked at my sheep. They were a nice bunch. I had taken a lot of pains getting the very best I could. For years I had made it my business to hunt for the finest ram I could find to head my flock. I saved the best ewes and gave them the best care I knew how. Why, wife and I got up many a night way long toward morning to see how they were coming on when it was time for the lambs to be dropped. Many a lamb did we save that way, not knowing or thinking about it that they might never bring back what we were putting into them. We were doing it just because we loved our sheep. And they seemed to love us back again. They did so well. More lambs and finer wool—that was our satisfaction, and it was worth a lot to us. It was like bringing up the babies in the house. You can do till you drop down if it is for your own boys and girls.

"Well, I stood there and looked at my flock. I knew there was no money in them the way things were going. I had been advised to let them go and do something else that had more money in it. But the folks that talked that way did not know just how I loved them. But, something had got to be done. I was keeping the sheep at a loss. If I went on the old way it would have to be at the expense of the other farm operations. What was the use? Had I not better let them go?

"So I argued it back and forth. Once I thought I would call up the butcher and ask him to come out and look them over. Then I braced up! I said, 'I'll be hanged if I'll do it! They will come out all right! Things will change! Our men down at Washington will get round to think of us some day, and then I shall wish I had clung to my sheep! I'll stick to them!' Old Nan came up just then, stuck out her nose and looked right up into my face. If she could have spoken I know what she would have said. It would have been, 'Thank you, my Master! We'll stick to you as tight as you stick to us!'

"And now I'm glad we did stick to-

gether. Because, don't you see, things are going to be better. They're going to give us the protection we need. Our wool will have a chance again. Folks will have good warm suits of wool once more. Shoddy is going to go with the low tariff and we will see sheep again in the pastures of this country. I have faith that the sheep business is coming back to its own. I am going to keep right on just as I always have, getting the best sheep I can and building up my little business. I believe my country needs wool and that our representatives will stand by us in trying to give it to the people."

WHEAT IN GOOD DEMAND.

AMERICAN millers have created such a demand for new wheat that the export trade has been crowded off the market for the time being, says the Michigan State Farm Bureau Elevator Exchange. Winter wheat millers are reported as saying that their business has revived wonderfully, and in view of present conditions they do not want any more wheat to go for export. During the week of August 1 the millers were paying up to three and a half to four cents more per bushel than the exporters and bid fair to take over a large portion of the crop.

Prospects are that the wheat market will get stronger, says the elevator exchange. Early in August the market was as strong as it was just before the new wheat came on the market. Most of the ninety-five elevators belonging to the exchange are supplying wheat for millers.

The rye market is reported sick. A decline of twenty cents was noted in a period of ten days. Hay was up around \$17 in early August, higher than at any time since last October. It is the period between the old and new crops, with the prospect of only fifty or sixty per cent of a normal new crop. Eastern buyers are now reported to be buying new hay from Ohio at prices which would correspond to \$16 to \$17 a ton, Michigan rates. Michigan's new crop will not be moving for two or three weeks, but the prospects are quite strong for a fair price, says the elevator exchange.

ARE SPLIT FENCE POSTS OR ROUND POSTS BEST?

IS a split fence post as durable as a round fence post? This question is frequently asked of the United States Forest Products laboratory. One kind of post will last about as long as the other if the amount of heartwood is the same in both, laboratory experts declare. But if the percentage of sapwood is increased by splitting, the split post will be less durable, and if the percentage of hardwood is increased, it will be more durable than a round one. Posts of spruce, hemlock, or any of the true firs are exceptions to this rule, because their heartwood and sapwood are about equally durable.

When posts are to be treated with creosote or other preservative a round post is preferable to a split post, because of the comparative ease with which the sapwood can be treated. The heart faces on split posts do not, as a rule, absorb preservative well. Split red-oak posts will take treatment, because the wood is very porous, but the heart faces of split posts of many other species, notably white oak, red gum, and Douglas fir, resist the penetration of preservative, even under heavy pressure.

JERSEY CATTLE BREEDERS GET TOGETHER.

THE Michigan Jersey Breeders' Association held their 1921 round-up at the Adrian Fair Grounds, August 17.

Local, county and state members were in attendance, bringing with them their families, also well filled lunch baskets.

Herbert Tipel, of Adrian, president of Lenawee County Jersey Breeders' Association, called the afternoon meeting to order, introducing Alvin Balden, of Capac, Mich., state chairman of the association, who presided over the remainder of the session.

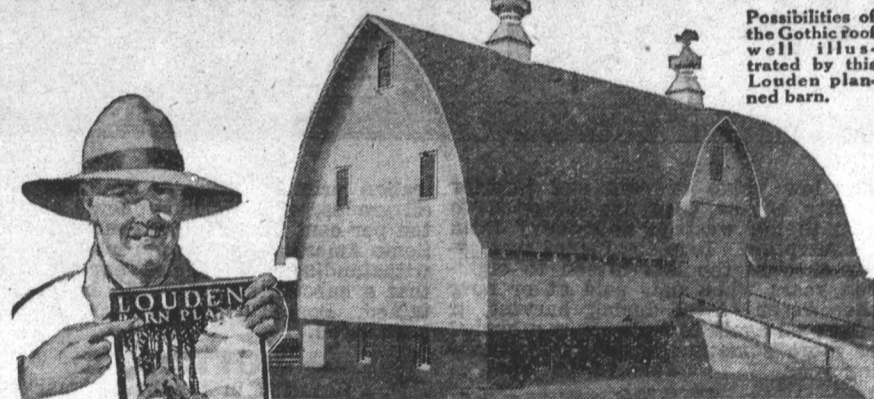
F. F. Showers, of Carleton College, gave a very interesting talk on dairying as a business, and the necessity of tuberculin tests. The arguments set forth by Mr. Showers as to the importance of testing for tuberculosis were convincing to say the least. His charts comparing food value of whole milk with other solid foods left no doubt in the minds of his audience as to the nourishment to be derived from the use of milk and its products as a food.

Professor Reed, of M. A. C., paid tribute to the dairy cow in general and to the Jersey dairy cow in particular. He showed clearly the benefits to be derived from cow-testing associations, and the necessity of tuberculin testing as a safeguard to the dairy industry of the state. He gave convincing figures to prove the urgent need of substituting the pure-bred Jersey sire for the scrub bull.

Helmer Rabild, who has recently severed his connection with the dairy division of the bureau of animal husbandry, at Washington, D. C., gave a short talk on dairy marketing, and explained briefly the proposed plans for the manufacture and marketing of dairy products for which the construction of a new plant is being considered by Adrian dairymen.

The interest shown by the breeders present at this meeting shows clearly that Michigan is to compete with the Isle of Jersey in the breeding of better stock.

Think What a Modern Barn Like This Would Mean to You



Possibilities of the Gothic roof well illustrated by this Loudon planned barn.

The Barn You Have Been Planning On Is in This Loudon Plan Book

THIS book is sent free on request if you are going to build or remodel a barn. It shows 74 of the most popular types of barns and gives exactly the information you need on barn arrangement, sanitation, concrete work, drainage, ventilation, lighting, floor and roof construction, size silo to build and scores of other details concerning every possible phase of barn construction—a complete encyclopedia of information on barn building.

It will pay any farmer to get this book. It shows how a modern profit-making barn is arranged and equipped. In it you will probably find the barn that exactly suits your needs and which would assist you materially to save time on barn work, afford greater convenience and storage space and help you make more profit on your farm.

Let Loudon Barn Experts Help You—Without Charge

In case you should not find a plan in the Loudon book that exactly meets your requirements, just tell us the size of barn you have in mind—the number and kind of live stock you intend to house and our experts will work out suggestive blueprints to fit your particular needs without charge or obligation to you.

Good News for Farmers

It has always been our policy to give farmers the benefit of all possible savings on Loudon Barn Equipment, but now with our present new prices we have gone a long step farther—we have anticipated all probable or possible reductions in labor and raw materials for many months to come. You obtain the advantage of all savings it is possible to make. No barn equipment of anything like an equal quality is sold at so low a price.

It is an investment that will put your barn on a bigger profit-paying basis because of the tremendous saving of time and labor every day in the year made possible with Loudon equipment and the extreme low first cost it can now be purchased for.

When you fill in the coupon, be sure to ask for the new 224-page Loudon Catalog. It illustrates and fully describes Loudon Sanitary Stalls and Stanchions, Time-Saving Feed and Manure Carriers, Water Bowls, Animal Pens, Ventilating Cupolas, Hay Unloading Tools and many other labor-saving devices necessary to profitable farming. Send for both books today. Fill out and mail the coupon.

THE LOUDON MACHINERY CO.
1929 Court St. (Est. 1867) Fairfield, Iowa

LOUDEN
BARN PLAN SERVICE and EQUIPMENT

Fill Out and Mail Coupon Today

LOUDEN BARN PLANS

Please send postpaid, without charge or obligation, books checked below:

☐ Loudon Barn Plans
☐ Loudon Catalog

I expect to build (remodel) a barn for... cows... horses. Am interested in Litter Carriers... Stalls and Stanchions... Water Bowls...

Name.....
P. O. State

1929

O. I. C. HOGS

all ages sired by Callaway Edd 1918 world's grand champ. boar and C. C. Schoolmaster 1919 world's grand champion also Wonder Big Type and Giant Buster. Write your wants, all stock shipped on approval.

CRANDELL'S PRIZE HOGS,

Cass City, Mich.

CATTLE

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

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

A Proven Blood Line

KING SEGIS transmitted to his sons the power to transmit to their daughters the greatest of production over long periods. It is his offspring that has recently made the greatest yearly production ever dreamed of 37,381.4 pounds of milk in a year. We have for sale at moderate prices. Beautiful individuals of show type KING SEGIS BULLS.

GRAND RIVER STOCK FARM,
315 N. East Ave., Jackson, Mich. C. J. Spencer, Owner, Under State and Federal Supervision

Reg. Holsteins for sale at all times either sex. Bulls or heifers, prices reasonable. Write or come and see them. HENRY S. ROHLFE, R. 1, Akron, Mich.

Cluny Stock Farm

Only 2 Sons Of "Maplecrest" For Sale

Old price list cut $\frac{1}{2}$ to $\frac{1}{3}$ for prompt sale.
No. 1. 18 mos. old—Dam 19 lbs. 3 yr. old, next dam 20 lb. 3 yr. old. \$100.00.

No. 2. 15 mos. old—Dam 22 lbs. 4 yr. old sister to two 1000 lb. cows. \$150.00.

No. 4. 17 mos. old—Sired by my 30 lb. Jr. Herd Sire. Dam a 24.9 lb. 4 yr. old daughter of "Maplecrest," with 15,850 lbs. milk and 714 lbs. butter in a year at 3 yrs. \$250.00.

Don't delay—They sell at these prices. Pedigrees on application.

R. B. McPHERSON, Howell, Mich.

Reg. Holsteins and Berkshires, most any age, either sex, priced according to other commodities. Write or come. B. E. REAVEY, Akron, 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.

7 Yearling Bull Bargains

Sired by Segis Korndyke De Nijlander a 32 lb. son of a twice Michigan ribbon winner, her dam, 29½ lbs. Dams are daughters of King Segis Pontiac, a 37 lb. son of King Segis. Records 16 lbs. to 20 lbs. Priced at half value, \$100 up. Federally tested June 10. Write for list. ALBERT G. WADE, White Pigeon, Mich.

Reg. Holstein Calves for sale: both sexes; sired by a 32 pound bull. Prices reasonable. L. HOUGHTEN, Troy, Mich.

Herefords

20 Cows of extra quality and breeding, 12 of them bred to our \$5200.00 son of Old Repeater, also bulls not related.

Allen Bros. Paw Paw, Mich.

or 616 So. Westnadge Ave., Kalamazoo, Michigan

For Sale:—Our herd bull Marguerites Premier No. 137370 dropped June 7, 1915. A Register of Merit bull having five daughters in R. of M. now and four others that will be in R. of M. this fall, they are now qualified. He is a grandson of Pogs 99th of Hood Farm, is solid grey fawn in color, deep thru the heart, good size, gentle and sure. Reason for selling cannot use him longer in our herd. Write SMITH and PARKER, Howell, Mich.

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

The Wildwood Farm

Jersey Cattle, Majesty strain. Herd on State accredited list. R. of M. testing constantly done. Bulls for sale. ALVIN BALDEN, Phone 143-5, Capac, Mich.

Lillie Farmstead Jerseys Bull calves from R. of M. cows. COLOM C. LILLIE, Coopersville, Mich.

Jersey Bulls For Sale ready for service from R. of M. dams. T. B. tested. Will give time. SMITH & PARKER, R. 4, Howell, Mich.

Registered tuberculin tested, Jersey bull, one year old. Show animal, best of breeding. Mrs. Claudia Betts, Hillsdale, Mich.

Jersey Bull Calf, dropped August 7th. Barrons Owl interest sire. Thirty dollars reg. and transferred. A. N. Dean, Birmingham, Mich.

BIDWELL SHORTHORNS

BUY A BULL

that will put weight on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. We guarantee every animal to be a breeder. Federal Test. One hour from Toledo, Ohio, N. Y. C. R. R.

BIDWELL STOCK FARM,
Box D, Tecumseh, Michigan

Richland Shorthorns

We offer a few choice Scotch heifers with calves at foot. This is good foundation stock and the calves are all from top sires. Prices reasonable. Write your wants and see the cattle.

C. H. PRESCOTT & SONS,
Office at Tawas City, Mich., Herd at Prescott, Mich.

The Maple's Shorthorns

Kirklevington Lad, by Imp. Hartford Welfare, in service. Stock for sale.

J. V. WISE, Gobleville, Mich.

Shorthorns. Bull calves for sale from the best milking blood obtainable. ROSEMARY FARMS, Williamston, Mich.

BUY SHORTHORNS of Central Michigan Breeders' Association at farmers' prices. Write for sale list to M. E. Miller, Sec'y, Greenville, Mich.

Shorthorn Bull For sale, Fames Pride 72492. Two yrs. old nice roan with star in forehead. Very gentle and a fine specimen of the breed. Price \$225.00. W. F. BARTLEY, Alma, Mich.

Shorthorn Bull calf for sale from Imp. dam. Sire Cumberland bred from Imp. dam. J. A. BARNUM, Union City, Mich.

FIVE BRED HEIFERS

that we will sell cheap if taken at once. Inquire about them or better come and see them. CARR BROS. & CO., Bad Axe, Mich.

Francisco Farm Shorthorns

and BIG TYPE POLAND CHINAS. Now offering 3 heifers, 2 bulls, all Scotch. Sows to farrow in Aug. and Sept. Spring pigs. 60 head to choose from. POPE BROS. CO., Mt. Pleasant, Mich.

See Us At The Fairs

with our Red Polled Cattle. WESTBROOK BROS., Ionia, Mich.

For Sale Brown Swiss Bulls

E. H. EISELE, Manchester, Mich.

HOGS

Berkshire spring pigs, either sex, \$10, \$12 and \$15 according to age. Also fall gilts and yearling sows. CHASE STOCK FARM, Arlington, Mich.

Brookwater Duroc Jerseys

FALL BOARS OPEN GILTS

All of the right type and the best of breeding. Prices reasonable.

Mail orders a Specialty. Satisfaction guaranteed.

BROOKWATER FARM, Ann Arbor, Mich.
H. W. Mumford, Owner J. B. Andrews, Mgr.

Duroc Jerseys A few extra good fall boars, and a choice lot of spring boars of the heavy boned type popular blood lines at reasonable prices. DRODT & BERN, Monroe, Mich.

Chester Whites Choice March boars; new blood for old customers; cholera immuned; price right. F. W. Alexander, Vassar, Mich.

Chester Whites A few choice spring gilts and boars left. GEORGE D. SPRINGER, R. 6, Grand Rapids, Mich.

DUROC JERSEYS: A few choice bred gilts for sale. CAREY U. EDMONDS, Hastings, Mich.

Duroc Jerseys

Gilts bred for fall farrow at reasonable prices. RUSH BROS., Oakwood Farm, Romeo, Mich.



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

Phillips Bros, Riga, Mich.

Collinsdale Duroc Jerseys

Lyons, Mich. R. 1, L. A. Burhans, Owner

Herd Boars

Wolverine Pathfinder by Pathfinder Wolverine Sensation by Great Orion Sensation. Wolverine Renown Wonder by Great Wonder IAM Fall boar and gilts by the Sensation boar. 100 spring pigs from these boars.

Herd Sows breeding

O. C. K., Pathfinder and Big Bone Giant.

Woodlawn Farm Duroc hogs are from select breeding stock, well mated for size, type and color. Herd boars, sows and pigs, will ship C.O.D. and furnish Reg. certificate. W. E. Bartley, Alma, Mich.

PEACH HILL FARM

Offers gilts sired by or bred to

Peach Hill Orion King 152489
INWOOD BROS., Romeo, Michigan

Duroc Jerseys Am booking orders for spring pigs. Few fall gilts. E. D. HEYDENBERG, Wayland, Mich.

Additional Stock Ads. on Page 195

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Advice through this column is given free to our subscribers. Letters should state fully the history and symptoms of each case and give, name and address of the writer. Initials only are published. When a reply by mail is requested the service becomes private practice and \$1 must be enclosed.

Shy Breeder.—I have a mare that has been served regularly every three weeks, but she fails to get with foal. J. R., Saginaw, Mich.—Dissolve two ounces of bicarbonate of soda in one quart of tepid water and flush vagina three times a week, also treat her two hours before service.

Abortion.—I have a cow that was served April 21. Last week she lost her calf. Can you tell me the cause? She was selected from a herd where none of the cows had had a calf for the past twelve months. A. B., Caro, Mich.—Doubtless she suffers from contagious abortion infection. She may carry her next calf the full period, but if she is not a deep milker, fatten and market her for beef.

Cough—Breeding Question.—I have a Holstein calf two months old, but I fear the calf has tuberculosis. He has bad cough, chokes some while drinking and is short-winded. The calf is growing nicely, drinks twenty-four quarts of milk daily. Is also fed mixed hay, and half a gallon of whole oats daily. The milk comes from good sound cows. The calf had a bunch on navel, but this is nearly all gone. I would like to keep this calf for service, if he can be made sound. G. K., Harris, Mich.—When this calf reaches five or six months of age, have him tuberculin-tested, this will demonstrate whether or not he is free from tuberculosis. Rub throat with camphorated oil twice a day. The writer believes your calf will get all right and is worth keeping.

LATEST MARKET REPORTS

GRAIN QUOTATIONS

Tuesday, August 23.

Wheat.

Detroit.—Cash No. 2 red \$1.21; September \$1.22; No. 2 mixed \$1.18; No. 2 white \$1.17.

Chicago.—No. 2 mixed \$1.16½; No. 2 hard \$1.17½ @ 1.18½; September at \$1.17½.

Toledo.—Cash No. 2 red \$1.20; September \$1.22½; December \$1.27.

Corn.

Detroit.—Cash No. 2 yellow 59c; No. 3 yellow 58c; No. 4, 55c.

Chicago.—No. 2 mixed 53¼ @ 54¼c; No. 2 yellow 64 @ 64¼c.

Oats.

Detroit.—Cash No. 2 white 37c; No. 3 white 34½c; No. 4, 29½ @ 32c.

Chicago.—No. 2 white 34c; No. 3 white 30 @ 31½c.

Beans.

Detroit.—Immediate and prompt shipment \$4.75 per cwt.

Chicago.—Market is without special change. Hand-picked Michigan beans choice to fancy \$4.60 @ 4.75; red kidney beans \$9 @ 9.25.

New York.—The market is steady without much change in prices. Choice pea \$5.50; do medium \$5.75; kidney \$4.70.

Rye.

Detroit.—Cash No. 2 rye \$1.

Toledo.—Cash 99c.

Chicago.—No. 2, 98 @ 99c.

Seeds.

Detroit.—Prime red clover, cash and October \$13; alsike \$10; timothy at \$2.75.

Toledo.—Prime red clover \$13.15; alsike \$10.05; timothy \$2.60.

Hay.

Detroit.—No. 1 timothy at \$21 @ 22; standard and light mixed at \$20 @ 21; No. 2 timothy \$18 @ 20; No. 1 clover mixed \$16 @ 17; No. 1 clover \$14 @ 15; rye straw \$13.50 @ 14; wheat and oat straw \$12 @ 12.50 per ton in carlots at Detroit.

Feeds.

Detroit.—Bran \$23; standard middlings \$24; fine middlings \$27; cracked corn \$29; coarse cornmeal at \$27; chop \$23.50 per ton in 100-lb sacks.

WHEAT

Receipts of wheat at primary markets since July 1 total 114,000,000 bushels as compared with 59,000,000 bushels in the same period last year. As a result of the flood of wheat the visible supply has been climbing rapidly and is now nearly 40,000,000 bushels as compared with a ten-year average of 33,000,000 bushels for September 1. Prices during the past six weeks fluctuated most of the time at Chicago between \$1.20 and \$1.30. The failure of the market to respond immediately to a bullish statistical situation caused prices finally to sag down to the lowest point of the year. While both French and Italian crops were estimated to be considerably larger than last year, European requirements are not expected to be smaller than last year. Wheat prices may go materially lower while the movement is heavy from the north-west and from Canada, but when the full effect of this movement has been discounted by the market, prices will likely rebound sharply later in the crop year.

CORN

Corn reached the lowest point for August since 1906. In spite of the low prices the movement of corn during the past week was over four times as large as in the same week a year ago. Country offerings have declined somewhat as a result of the break in the market. Corn reports have been less favorable recently. Many barren ears are reported so that yields will not be as heavy as the present appearance of the crop indicates. Demand for cash corn is fairly broad. Industries are grinding at about eighty per cent of capacity and export sales are large for this cereal.

OATS

Oats are selling at one cent a pound or less at the leading middle western markets, but consumptive demand is not equal to daily receipts and the visible supply continues to pile up.

The low value of oats and inferior quality of the crop are expected to lead to big wastage and heavy farm consumption. It is significant that every time in the last fifteen to eighteen years when oats sold at or near the present level during harvest, it advanced again to forty cents a bushel or more sometime during the following year.

SEEDS

The department of agriculture reports a timothy seed crop about seventy-five per cent of that of last year due to reduced acreage and a smaller yield per acre. Drouth resulted in the cutting of many fields for hay which otherwise would have been used for seed. Prices on clover and timothy were higher early last week but declined toward the close.

FEEDS

Demand for mill feeds and oilmeals continues light. Production also is below the average. Prices are practically steady except upon bran and cottonseed meal which are slightly lower.

HAY

Hay markets were easy during the last week. Receipts were heavy at western points and demand limited almost entirely to local requirements. Markets in the eastern and southern consuming sections also were weak, with demand poor. Rains have done much to reduce requirements for this fall.

WOOL

Wool markets report healthy trade with a fairly large volume changing hands. A slight amount of speculative buying is in evidence and mills are buying to fill their requirements on account of orders for woolen goods. Fine wools are still in strongest demand. Cloth prices are steady, the smaller mills having taken the cue from the leading manufacturer. Aus-

tralian primary markets are firm on all grades, with Merinos quoted about ten per cent higher than a month ago. Some American buying is reported notwithstanding the general expectation that a substantial tariff will be maintained. Boston quotes prices as being unchanged.

BUTTER

The firmness in the butter market noted a week ago was shortlived. Production is gradually increasing as a result of widespread rains which have revived pastures and is now heavier than a year ago, according to creamery reports. Consumptive demand also has been curtailed slightly by recent high prices. The quality of market arrivals is considerably higher than during the hot weather period. In spite of the increase of production and heavier market receipts cold storage holdings are increasing much less rapidly than at this time last year, due largely to the absence of Danish receipts. Prices for 92-score fresh butter as quoted by the bureau of markets were as follows:

Chicago 37c; New York 40¼ @ 41c. At Detroit fresh creamery in tubs is selling at 37c.

POULTRY AND EGGS

Receipts of eggs on the leading markets last week were far in excess of the same week last year, but prices were well maintained. Cold storage holdings increased slightly during July just as they did a year ago. Holdings of frozen poultry decreased over 6,000,000 pounds in July compared with a decrease of 2,400,000 pounds in the same month last year.

Latest quotations were as follows: Chicago.—Eggs fresh firsts 33 @ 36½c; ordinary firsts 29 @ 31c.

Poultry.—Springs 25 @ 28c; hens general run 23 @ 28c; roosters 16c; ducks 22 @ 26c; geese 12 @ 14c; turkeys 35c.

Detroit.—Fresh current receipts at 29c. Poultry, spring chickens 28 @ 30c; hens 26 @ 27c; roosters 17c; ducks 22 @ 24c; geese 15c.

POTATOES

Increased receipts, especially from New Jersey, were the chief factor in checking the advance in eastern potato markets. New Jersey sacked Irish Cobblers sold at \$3.15 @ 4.05 per 100 lbs. sacked. Western potatoes bring \$3.50 @ 3.80 per 100 lbs. on middlewestern markets.

CHEESE

Cheese markets declined further early in the past week but toward the end showed a slightly improved tone. The eastern situation, however, is still unsatisfactory. Fancy cheese is firmly held and some fancy June cheese carries a small premium. Buyers are critical on the whole, and undergrades are hard to move. Most dealers believe that higher prices are due and are buying on the declines.

GRAND RAPIDS

Receipts of apples, peaches, pears, plums and grapes were the heaviest of the season this week. Prices were inclined to ease. Quotations were as follows: Peaches, Michigan Elbertas \$4 @ 5 bu; Early Michigans and Carmens \$3 @ 4.50; New Prolifics \$3 @ 4. Apples, Strawberry \$2 @ 3 bu; Wealthy \$1 @ 2; Pippins \$1 @ 2; Wolf River \$1 @ 2; sweet apples \$1 @ 1.75; cooking apples and windfalls 75c @ \$1. Plums, Lombard \$1 @ 1.75 bu; Burbank \$2 @ 2.50; Brandshaw \$1.50 @ 1.75; Green Gage \$1 @ 2. Pears, all varieties \$1.50 @ 2.50 bu. Grapes, King and Early Moores \$2.75 @ 3.50 bu; Delewares and Concord, first pickings, \$3.50 @ 4.50 dozen 4-lb baskets. Cantaloupes, Osages \$1 @ 1.25 bu; Hearts of Gold \$1.50 @ 1.75 bu.

Potatoes.—No. 1, \$2 @ 2.25 bu; No. 2, \$1 @ 1.50; movement light and demand strong.

Live Stock.—Hogs, dressed, heavy 11½ @ 12c; light 13 @ 14c; steers, heavy live 7 @ 7½c; light 8 @ 8½c; cows 3 @ 5c; bulls 3 @ 4c. Sheep, dressed ewes 12 @ 13c; lambs dressed 18 @ 20c.

EDUCATIONAL EXHIBITS AT THE DAIRY CATTLE CONGRESS.

The part which the dairy cow plays in a period of financial depression will be emphasized in the many educational exhibits which will be made at the Twelfth Annual Dairy Congress, September 26 to October 2, Waterloo, Iowa.

The Dairy Division, United States Department of Agriculture, The National Dairy Council, the Holstein-Friesian Association of America, The American Jersey Cattle Club, the Ayrshire Breeders' Association, the American Guernsey Cattle Club, the Brown Swiss Breeders' Association, the Extension Department of Iowa State College, the Iowa Dairy and Food Commission, the Iowa State Dairy Association and the Iowa Dairy Council will participate in the exhibits and demonstrations.

COMING LIVE STOCK SALES.

Berkshires.—September 6, Auction Sale of the Michigan Berkshire Association at State Fair Grounds.
Aberdeen-Angus.—September 23, Eastern Aberdeen-Angus Breeders' Association Sale, Eastern States Exposition, Springfield, Mass. F. W. Burnham, Greenfield, Mass., Secretary.
Aberdeen-Angus.—October 12, Indiana Aberdeen-Angus Breeders' Association Sale, Indianapolis, Ind. Prof. C. F. Gobble, Lafayette, Indiana.
Guernseys.—October 19, Michigan State Sale, Lansing, Mich. F. E. Fox, Waukesha, Wis., Sales Manager.
Holsteins.—October 21, Howell Sales Co., Eighth Annual Sale at Howell, Mich. Wm. Griffin, Secretary.

SUMMER GRANGE RALLIES.

The following Grange Rallies will be held during the coming week:
August 29, Manistique.
August 30, Powers.
August 31, Crystal Falls.
September 1, Baraga Grange Hall.
September 2, Marquette.

Live Stock Market Service

Wednesday, August 24.

DETROIT

Cattle.

Receipts 310. Market is slow but steady.

Best heavy steers.....	\$ 7.00 @ 8.00
Best handy wt bu steers	7.50 @ 8.25
Mixed steers and heifers	5.75 @ 6.00
Handy light butchers ..	5.00 @ 5.25
Light butchers	4.00 @ 4.50
Best cows	5.00
Butcher cows	3.75 @ 4.00
Common cows	2.50 @ 3.00
Canners	1.50 @ 2.50
Best light weight bulls..	4.75 @ 5.00
Bologna bulls	4.25 @ 4.50
Stock bulls	3.50 @ 4.50
Feeders	5.00 @ 6.00
Stockers	3.00 @ 5.00
Milkers and springers....	\$ 35 @ 85

Veal Calves.

Receipts 337. Market steady.

Best	\$11.50 @ 12.00
Others	4.00 @ 10.00

Hogs.

Receipts 1,435. Mixed hogs are 25c higher; pigs steady.

Mixed hogs	\$ 9.50
Heavy hogs	8.50
Pigs	9.00

Sheep and Lambs.

Receipts 1,339. Good lambs strong; others steady.

Best lambs	\$ 9.85
Fair lambs	7.50 @ 8.75
Culls and common	1.00 @ 1.50
Light to common	4.00 @ 6.00
Heavy sheep	3.00

CHICAGO

Hogs.

Estimated receipts today are 13,000; holdover 10,100. Market fairly active and 15 @ 40c higher. Bulk of sales at \$7.35 @ 9.50; tops \$9.60; heavy 250 lbs up medium, good and choice \$8.25 @ 9.25; medium 200 to 250 lbs medium, good and choice \$9.10 @ 9.60; light 150 to 200 lbs common, medium, good and choice \$9.30 @ 9.60; light lights 130 to 150 lbs common, medium, good and choice at \$8.75 @ 9.50; heavy packing sows 250 lbs up smooth \$7.25 @ 7.75; packing sows 200 lbs up rough \$7 @ 7.25; pigs 130 lbs down medium, good and choice \$8 @ 9.

Cattle.

Estimated receipts today are 8,000. Market mostly steady. Beef steers, medium and heavy weight 1100 lbs up choice and prime \$9.25 @ 10.25; do medium and good \$6.50 @ 9.25; do common \$5.25 @ 6.50; light weight 1100 lbs down good and choice \$8 @ 10.25; do common and medium \$5 @ 8; butcher cattle heifers common, medium, good and choice \$3.75 @ 8.50; cows common, medium, good and choice \$3.50 @ 6.55; bulls bologna and beef at \$3.25 @ 6.50; canners and cutters cows and heifers \$2.30 @ 3.50; do canner steers \$2.50 @ 3.25; veal calves light and handy weight medium, good and choice at \$8 @ 10.25; feeder steers common, medium, good and choice at \$5.25 @ 7.35; stocker steers common, medium, good and choice \$4 @ 6.75; stocker cows and heifers common, medium, good and choice \$3 @ 5.

Sheep and Lambs.

Estimated receipts today are 24,000. Sheep are steady; lambs 25c lower. Lambs 84 lbs down medium, good, choice and prime \$7.75 @ 10; do culls and common \$5 @ 7.50; spring lambs, medium, good, choice and prime \$6.25 @ 8; ewes medium, good and choice at \$3.25 @ 5.25; ewes cull and common at \$1.50 @ 3; breeding ewes full mouths to yearlings \$3.50 @ 7; yearling wethers, medium, good and choice \$6.25 @ 8.

BUFFALO

Cattle.

Receipts 625; market steady; early sales 25 @ 75c lower; shipping steers \$8.50 @ 10.50; butchers \$8 @ 9.50; yearlings \$9 @ 10.50; heifers \$5 @ 7.50; cows \$10.50; bulls \$3.25 @ 6; stockers and feeders \$1.50 @ 6; fresh cows and springers steady at \$4 @ 6.30. Calves.—Receipts 200; market steady at \$5 @ 12.

Hogs.

Receipts 2,500. Market is 50 @ 75c lower; heavy at \$9 @ 9.25; mixed and yorkers \$9.50 @ 9.75; light yorkers and pigs \$8.50 @ 9; roughs \$6 @ 6.25; stags \$3 @ 4.50.

Sheep and Lambs.

Receipts 800. Market unchanged; lambs \$5 @ 11.25; yearlings \$3.50 @ 8; wethers \$5.50 @ 6; ewes \$1 @ 4.50; mixed sheep \$5 @ 5.25.



This Trademark is Your Protection

Not Just Figures Premiums and Policies

Many farmers neglect to inventory their house, household goods, barns and other equipment, consequently realizing but part of their actual value in the event of fire. How often we read that the property loss was \$15,000 and only insured for \$10,000; a third of the property's value destroyed forever.

Full coverage protection is a safe-guarding the foresighted farmer insists upon. A protection that means far more than figures, premiums and policies.

Satisfactorily settling all just claims, the PENINSULAR FIRE INSURANCE COMPANY continues to protect the farmer on a city property basis.

A Postal to our Farm Department will bring you interesting information, which also includes expert crop protection advice. This will not obligate you. Write today.

PENINSULAR

Fire Insurance Company
of America

Capital \$1,000,000.00
GRAND RAPIDS, MICHIGAN

COLON C. LILLIE,
President.

J. FLOYD IRISH
Sec'y. and Managing Underwriter

McCaffrey's Hay Manager
Now With

Geo. E. Rogers & Co.

We solicit your consignments. Liberal
advances on all shipments.
Geo. E. Rogers & Co., 601 Wabash Bldg., Pittsburgh, Pa.

Eggs

Our trade on fancy poultry
farm eggs is increasing
daily. Therefore we are in
a position to pay liberal
premiums above the Chi-
cago market for fine new
laid stock.

We solicit your shipments. Ship via Express.
AMERICAN BUTTER & CHEESE COMPANY,
2034 Howard St., Detroit, Mich.

For Sale Six 4 1/2 H.P. Olds Gasoline Engines.
These are splendid engines for farm
use and good as new. For particulars address
KALAMAZOO CORSET CO., Kalamazoo, Mich.

HOGS

AUCTION SALE BERKSHIRES

At Michigan State Fair Grounds
Tuesday, September 6th
Immediately following the Berkshire judging,
consisting of boars ready for service, bred sows
and open gilts. Terms cash or bankable note.
Col. L. W. Lovewell, Auctioneer.
Michigan Berkshire Association, J. W. Clapp,
Sec'y., 516 Murphy Bldg., Detroit, Mich.

DUROC SOWS and gilts bred to
Orion King No. 16925 Son of the \$10,000 boar owned
by Longview Farm, Le Summit, Mo. also young boars
ready for service out of good sows. Apply
THE JENNINGS FARM, Bailey, Mich.

Duroc Have some choice spring boars sired by Great
King Orion Col. No. 16925, double immune,
priced reasonable. HARRY FOWLER, Sturgis, Mich.

Sows Bred to Michigan Orion Sensation (a
great son of Great Orion's Sen-
sation) and Michigan Demonstrator (one of largest
and best boars in Michigan) for sale at conservative
prices. Also growing strong boars and gilts.
Michigan Farm, Pavilion Mich., Kalamazoo, Co.

DUROC JERSEYS

spring boars that will improve your hogs, of Orion
Cherry King, Col. and Pathfinder breeding, at rea-
sonable prices. Write us your wants. Bred sows and
gilts all sold. W. O. TAYLOR, Milan, Mich.

O. I. C. and Chester White Swine. Strictly
sold out of everything but Spring pigs. Have the
finest lot I ever bred. Meet me at the State Fair and
other leading fairs of the State. And see a sample
of our hogs and pigs.
NEWMAN'S STOCK FARM, R. 4, Marlette, Mich.

O. I. C's. Last fall gilts bred to farrow in Aug. boars
for service, also spring pigs for sale. MILO H.
PETERSON, Ionia, R. 2, Mich., Elmhurst Farm.

O. I. C's Choice gilts for April and May farrow, also
fall pigs. Booking orders for spring pigs.
A. J. BARKER & SON, Belmont, Mich.

MICHIGAN CROPS IMPROVE.

THE following report from Verne
H. Church, Agricultural Statisti-
cian for Michigan, shows an improve-
ment in crops resulting from recent
rains:

Growing crops have been much ben-
efited by the rains of the past week.
The ground is moist to a considerable
depth and plowing for fall-sown grains
has been resumed. This and other
farm work is progressing very satis-
factorily.

Corn is approaching maturity and
cutting has commenced. While heat
and drought have caused local dam-
age and will shorten the yield in some
fields the crops as a whole are very
good.

Wheat threshing is completed in
many sections, and much of the crop
has been marketed. The grain aver-
ages light and of inferior quality, al-
though in a few counties the quality
is much better than in others and is
nearly normal.

Oats are generally poor in quality
and yield. While some favorable
yields are reported, the great bulk of
the crop has averaged less than twenty
bushels per acre, and the grain is
very light in weight and greatly lack-
ing in substance.

There is considerable improvement
in the outlook for late potatoes. The
recent rains will cause the newly-set
tubers to grow rapidly. While there
are many poor stands, the yield should
be relatively better than the percent-
age of stand.

Late beans in the best bean-growing
counties are doing fairly well. They
are still blooming and there is a fair
setting of normal sized pods. Unless
early frost should prevent, the most
of the crop should mature. The early
beans were greatly injured by extreme
heat in July, and are a very poor crop.

Cloverseed promises well in most
sections, and a fairly good acreage is
indicated. Cutting has commenced and
the heads in these fields are mostly
well filled. However, dry weather has
shortened and thinned the stand in
some localities.

The third cutting of alfalfa is being
made through the southern districts
of the state and the yield is generally
good. A fourth cutting may be possi-
ble in some of these fields this year.
The acreage of alfalfa shows a marked
increase over previous years and
the crop is fast gaining in popularity.

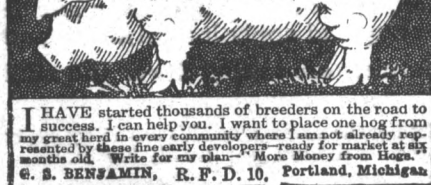
Sugar beets are growing nicely,
and will be greatly benefited by the
recent rains.

Fruit is gaining in size under the
improved moisture conditions. The
summer apples have mostly gone to
market, and peaches and grapes are
beginning to move in the southwest-
ern counties.

Luce Co., (Aug. 19).—Hay is about
one-third of a crop; oats light; wheat
fair, and rye an average crop. Potat-
oes in second bloom. If frost holds
off, potatoes will be 75 per cent of a
crop.—C. C. U.

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 rep-
resented by these fine early developers—ready for market at six
months old. Write for my plan—More Money from Hogs.
G. S. BENJAMIN, R. F. D. 10, Portland, Michigan.

O. I. C's. one yearling boar, last fall gilts bred for
O. next fall farrow; this spring pigs not akin, big
growthy stock, reg. free. Gilts' phone. 3/4 mile west
of Depot. OTTO B. SCHULZE, Nashville, Mich.

O. I. C's. Special prices on spring
pigs from prize winning
stock. Must be sold to make room. WEBER BROS.
Phone R. O. 408, 10 mile Rd. W., Royal Oak, Mich.

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

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

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

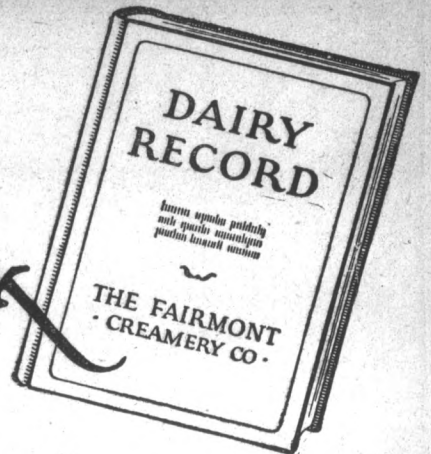
O. I. C's. Special prices on choice pigs of
March and May farrow by O. C. Big
Callaway. O. J. Thompson, Rockford, Mich.

O. I. C's choice boars and spring pigs
at farmers prices.
CLOVER LEAF STOCK FARM, Monroe, Mich.

L.T.P.C. \$15, \$20 & \$25

Our top notch stretchy boar pigs are weaned and ready
to ship. They are sired by such boars as Hart's Block
Price Cline's Big Bob, Right Kind Olan and Leon-
ard's Big Bob. HART, FULCHER AND CLINE,
Address F. T. Hart, St. Louis, Mich.

Send For This Amazing Free Book You Can Boost Your Dairy Profits



Thousands of farmers with one or more cows are putting more cash in the bank as extra
profit because they follow the methods suggested in this book—the book we send you with-
out cost. The book has no magical power, understand, but because of the priceless in-
formation it gives, it simply has opened the eyes of farmers everywhere to greater earn-
ings from their farm in general, and to greater profits from their cows in particular.
The book is now FREE to any reader of the Michigan Farmer who asks for it. Just
send your name and address on a post card or on the coupon below.

Complete—From Producing to Marketing

Amazing increase in dairy returns are being made by following this book's suggestions.
It gives methods of breeding—methods of buying dairy stock—methods of raising cal-
ves—of feeding—of milking—of milk and cream improvement—of shipping—of keeping
proper records—all are given in a manner that any man can follow with success. And
it tells you how to

Get More Cash Same Day For All Your Cream

Ship Direct To Fairmont—Detroit

No Loss—No Risk—No Wait

A new plan that saves all commission charges.
You get Michigan's highest price from Fairmont
Creamery, Detroit Branch. You get cash on de-
livery. Guaranteed correct test—guaranteed high-
est market price and your check mailed same day
cream is received. Try one shipment. Send can
or car load from anywhere you live.

Fairmont is America's largest independent cream-
ery. Protects you against loss of cream or cans.
Company is 38 years old—a six million dollar
concern—branches in 18 centers. Your own
banker will tell you of our standing and responsi-
bility. Thousands of farmers deal with us. Try
us on just one lot.

Mail This Free Coupon.

Whether you ship to us now or not. Don't fail to
write and get the book. The coupon with your name
and address on a post card brings it. Absolutely no
obligation to write. Send today.

The Fairmont Cream- ery Company

Dept. A15
2452 Market St.,
Detroit, Mich.

The Fairmont Cream- ery Company,

Dept. A15, 2452 Market St.,
Detroit, Michigan.

Send me without obligation FREE Book which
tells me how to boost my profits. Also send ship-
ping tags and all details of your proposition to
buy my cream. 1 milk.....cows.

Name.....
Address.....

\$2.25 Take Your Choice \$2.15

Each

Wilder Steel-Latch Self-Adjusting Stanchions

Each

Chain, open



save feed, save time, save bedding. Can be opened or
closed without removing mittens; lock in place when open
—most convenient for you. Swing freely when closed; have
smooth hardwood uprights—no splinters—without the
rust and chill of steel—most comfortable for the cows.

In two styles, chain or pin. Both strongly made of best grade
hardwood, strong, tough and sound, with rigid, blind-bolted joints.
Limited supply offered now at these low prices. Write today to
Department S-102 for catalogue.

Wilder-Strong Implement Co., Monroe, Mich.

Pin, closed



O. I. C. GILTS Bred for June and
July farrow.
H. W. MANN, Dansville, Mich.

Big Type P. C. some very choice boars double im-
mune, out 1000 lb. sire and mammoth sows from
Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

Big Type Poland China Boars Ready for
service, long
stretchy fellows. Grandsons of Gertsdale Timm,
weighing better than 300 lbs., also spring pigs. Grand-
sons of Leonard Big Bob. Satisfaction guaranteed. Call or
write. DORUS HOVER, Akron, Michigan

Spotted Poland Chinas

The hog with more outcrosses than any other
breed. Which insures vitality and prolificacy.
Why breed and feed grade hogs when you can buy
registered hogs at special low prices. Write me
your wants in bred gilts, boars or spring pigs.
Cholera immuned. Satisfaction guaranteed.

SAMUEL GERBER

R. 4, Bluffton, Ind.

L. S. P. C. a few choice boars
at farmers prices,
bred gilts all sold. Also a grandson of The Clans-
man and Harrison Big Bob.
H. O. SWARTZ, Schoolcraft, Mich.

Big Type Poland Chinas. A great litter by Checkers;
dam a grand-daughter of Giant Buster, are for
sale now. They were farrowed Mar. 11, and were
purchased of Jim Bloemendaal, Alton, Ia. in dam. Do
you want the best the breed produces? Come over
and see them. Wesley Hile, Ionia, Mich.

Sows bred for spring litters all sold. Have some
choice gilts bred for Aug. litters, also some Sept.
boars for sale. Clyde Fisher, R. 3, St. Louis, Mich.

Leonard Farm BIG TYPE P. C. boar pigs at
weaning time, \$25 from Mich.
Champion herd. Satisfaction guaranteed. Call or
write. E. R. LEONARD, R. 3, St. Louis, Mich.

Big Type Poland Chinas at lowest prices. Both
sex, all ages, and bred
sows and gilts.
G. A. BAUMGARDNER, R. 2, Middleville, Mich.

T. P. C. few choice bred gilts sired by T's Clansman
L. Mich's 1920 Gd. Cham. bred to Smooth Buster 1st
Jr. yearling 1920. A. A. Feldkamp, Manchester, Mich.

L. T. P. C. Nothing for sale at present.
W. J. HAGELSHAW, Augusta, Mich.

Baby Boars \$10. Reg. Poland Chinas 2 mos.
old. Satisfaction guaran-
teed, photos free. Fernwood Farm, R. 3, Ewart, Mich.

Hampshire bred gilts now ready for Aug. and Sept.
farrow; spring and fall boar pigs at a bar-
gain. JOHN W. SNYDER, R. 4, St. Johns, Mich.

Pine Grove Hampshires

Bred sows all sold. We are offering 100 spring pigs of
excellent breeding and quality. Either sex, order
early. GEO. COUPAR & SONS, Marlette, Mich.

FOR SALE YORKSHIRE GILTS

bred for Sept. farrowing.
WATERMAN & WATERMAN, Ann Arbor, Mich.
Tamworths, the bacon breed. Young pigs for sale
at prices farmers can afford to pay.
LEAVITT & SONS, Dublin, Mich.

SHEEP

INGLESIDE SHROPSHIRE

During the past 30 years Ingleside Farm has produced
over a 1000 Shropshires of sustained excellence, but
never before have we been able to present to our over-
widening circle of satisfied customers such an attrac-
tive offering of Shropshires of all ages.

In rams we have a strong assortment of lambs, year-
lings and aged rams—splendid individuals of the choic-
est breeding obtainable. We have young ewes of
quality for exhibition or foundation stock. We can
supply 2 or 3 fitted flocks for show at county fairs.

Write your wants—or better yet, come and inspect
this stock personally.
H. E. POWELL & SON, IONIA, MICH.

60 Head Registered Shropshire ewe and ram
lamb also yearling rams good size and
type. Priced to sell. Established 1890.
O. LEMEN, Dexter, Mich.

Idlewild Stock Farms offer for sale thirty Shrop-
shire and Leicester rams. See our ex-
hibit at Detroit, Jackson, Adrian, and Hillsdale Fairs.
O. J. MIDDLETON, Proprietor, Clayton, Mich.

25 Shropshire Ewes cheap 1 Minton
Ram 5 yearlings.
DAN BOOHER, R. 4, Ewart, Mich.

Straight Brook Hampshire Downs

For Sale: 30 yearling rams, 30 ram lambs including
real flock headers. We also have to offer ewes of all
ages. J. B. Welsh, Mgr. STRAIGHT BROOK
STOCK FARM, R. 1, Ionia, Mich.



What Will The Harvest Be?

There is probably not a farmer in Michigan who has not at least seriously considered applying limestone to his land. Thousands of the more progressive among them decided to do so this year, and they are reaping a handsome profit from the investment.

Many others have not yet made this decision.

They are the type who must know definitely the profit they can expect before making any investment.

We want to say a word to you farmers of this type. We can't tell you exactly in dollars and cents your profit from an investment in limestone, as soil conditions, crop conditions, and methods of working vary so greatly that this is impossible.

You can, however, find out for yourself very definitely what profits you can expect from a limestone investment if you go to the small amount of trouble necessary to get the results of scores of limestone tests, which have been made by **your** Agricultural College, by **your** County Agents and by other reliable investigators and users in your locality.

You know that prices this year have been so close to production costs that profits have been small. With labor, seed, and overhead costs fixed, the only way for you to increase your profits next year is to increase your yield.

You can put it down as a definite fact that a very large percentage of Michigan land is sour and needs limestone.

Also that, almost without exception, every farmer who has made his first trial investment in Solvay Pulverized Limestone is continuing to buy and apply it until all his land is covered. This proves that it pays.

You will find that hundreds of farmers are raising clover and alfalfa today on limed land where before they couldn't get a catch at all.

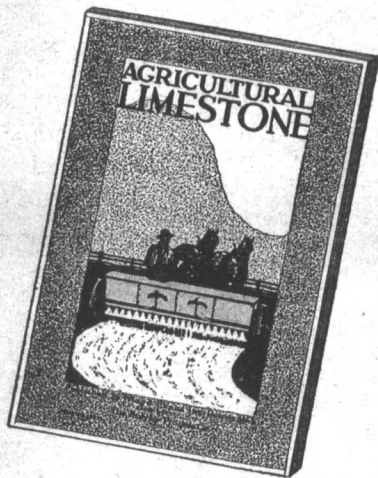
You will find that 50% increase in yield is the average result secured by applying Solvay Limestone to wheat lands. The average increase in alfalfa, clover, beans, etc., is as high, and usually higher.

These are **FACTS** which you can't overlook.

We don't ask you to accept our word for it. We merely ask you as a progressive farmer to find out about limestone—to study your own individual farm, compare it with tests which have been made under similar conditions, then figure the percentage of profit which you will get from a limestone investment, and decide for yourself.

Let us help you do this. Ask us to send our book on limestone, which gives you the facts—scores of tests and definite information so that you can find out what limestone will do for you.

While many county agents and farmers have told us that this book is one of the most valuable ever put into farmers' hands, we won't charge you for it. Just drop us a line now while you think of it so that you can know limestone and prepare to apply it this Fall, and reap the profits on your investment next year.



**This Book
FREE**

The book will be promptly sent, post-paid, upon return of this coupon. Or just drop us a postcard.

Please send copy of AGRICULTURAL LIMESTONE to

.....
.....
.....

SOLVAY

PULVERIZED AGRICULTURAL LIMESTONE

Wing & Evans, Inc.,
625 BOOK BLDG., DETROIT

Sales Agent
For

The Solvay Process Co.