

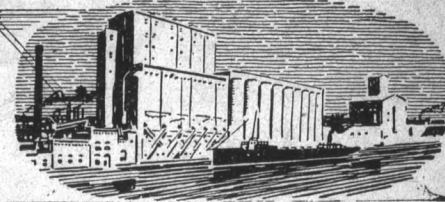
VOL. XIII, No. 16

APRIL 10, 1926

# *The Michigan* BUSINESS FARMER



*An Independent  
Farm Magazine Owned and  
Edited in Michigan*



## SPRING FEVER

*In this issue:—"Some More Sweethearts of Fifty Years and Over"—"Value of Boys' and Girls' Club Work to a Community"—Farmers Service Bureau—Broadscope Farm News and Views—Fruit and Orchard—Soils and Crops—and many other interesting features*

**Are You Getting The Business Farmer Market Reports Being Broadcast Through WGHP?**





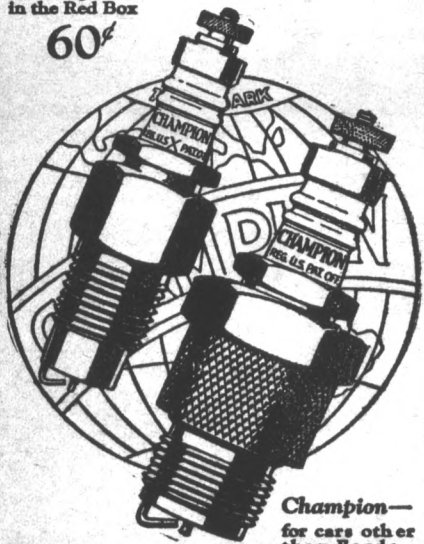
## POWER

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Toledo, Ohio



## How Michigan State College Killed Quack

By R. S. HUDSON

A FEW years ago a farm adjoining the college lands was purchased by the State Board of Agriculture as an addition to the college property. A part of this land was very light sand, which was pretty well sodded over with quack. It was reported that the quack had been seeded on this land by a former owner for the purpose of preventing the sand from blowing and drifting during heavy winds.

It will be observed that this prevalence of quack on the Michigan State College farm not only furnished a problem for myself as superintendent of field work at the college but also afforded an equipment with which to secure data which might help in answering some of the questions regarding quack grass.

Accordingly, a 50-acre field containing the sand area referred to previously was divided into eight areas upon which different cultural methods were used. Corn had been grown on the land in 1923, and the quack was so bad over a large part of the field as to materially reduce the yield of corn.

The following report will show the division of the field and indicate the work done with the results obtained as observed September 2, 1924, and again July 10, 1925.

### Plot I.

Fall plowed six inches deep October 15 to 20, 1923.

Thoroughly fitted with disc harrow and spring-tooth drag in April of 1924. Limed and seeded to oats and alfalfa April 20, 1924. Quack was very evident in thick patches July 10, 1925.

### Plot II.

Fall plowed eight inches deep October 23 to 27, 1923.

Plowed three inches deep May 2, 1924. Harrowed five times with spring-tooth drag at intervals of about 10 days (every time grass appeared). Limed and seeded to alfalfa August 12, 1924. Quack seemed entirely killed and no evidence of reappearance July 10, 1925.

### Plot III.

Fall plowed three inches deep October 23 to November 4, 1923.

Plowed eight inches deep May 2, 1924. Harrowed five times with spring-toothed drag at intervals of about ten days (every time grass appeared). Limed and seeded to alfalfa August 12, 1924. Quack seemed entirely killed and no evidence of reappearance July 10, 1925.

### Plot IV.

Fall plowed six inches deep October 24 to November 5, 1923. Disc harrowed six times at intervals of ten days (every time quack grass appeared). Limed and seeded to alfalfa August 12, 1924. Quack seemed entirely killed and no evidence of reappearance July 10, 1925.

### Plot V.

Fall plowed six inches deep October 24 to November 5, 1923. Harrowed eight times with Quack Grass Special tool No. 1. Limed and seeded to alfalfa August 12, 1924. Quack seemed entirely killed and no evidence of reappearance July 10, 1925.

### Plot VI.

Fall plowed six inches deep October 24 to November 5, 1923. Harrowed eight times with Quack Grass Special tool No. 2. Limed and seeded to alfalfa August 12, 1924. Quack grass seemed killed but soon reappeared in scattering clusters. By July 10, 1925, it could be easily discovered.

### Plot VII.

Spring plowed six inches deep May 20 to June 16, 1924. Harrowed with spring-tooth five times, disc harrowed five times. Limed and seeded to alfalfa August 25, 1924. Quack soon reappeared and was very evident in thick patches July 10, 1925.

### Plot VIII.

Same treatment as No. 7, but was not seeded to alfalfa. Was disc harrowed once and spring-toothed six times after August 25, 1924. Piece was fall plowed six inches deep in late November, 1924. Spring plowed four inches in 1925 and planted to corn in hills. On July 10, 1925, the Quack had entirely disappeared.

### Conclusion

1. Summer fallowing on fall-plowed land is a more reliable method for eradicating quack than sum-

mer fallowing on spring-plowed land.

2. Seeding a crop before quack is entirely dead will result in failure in ridding a farm of quack grass.

3. Fall plowing and seeding to a spring crop, either cultivated or uncultivated, will not eradicate quack.

4. Special tools are not necessary. Thorough use of a plow, spring-tooth drag, or a disc harrow will kill quack grass.

5. Success in the destruction of quack grass requires frequent and thorough cultivation, no matter which method is used.

### NEWAYGO FARMERS HAVE TOO MANY DUCHESS APPLES

JUST at this time of the year when the average farmer who is a producer of fruit and especially apples is doing his pruning and getting his orchard in shape for the coming season, the farmers of Newaygo county are facing another problem, the solving of which is necessary to their success or failure as apple producers. Several years ago when farsighted farmers saw the end of the timber regime in this county they started their orchards with the idea that when the timber from their land was gone their trees would be old enough to start bringing in an income. So they planted trees that they thought would give a big yield and would start bearing early, and the Duchess apple was the favored one. Since then many other varieties have been planted but the early apple that still predominates this section is the Duchess. There is no doubt about the ability of that variety to give a large yield and to bear fairly early, but the question that the farmer has to face is one of marketing. If he could get his Duchess apples to market at the right time he might succeed with them but he is rapidly finding out this fact that he cannot hope to compete with growers of early apples either in the southern part of his own state or with the neighboring states such as Illinois or other southern apple growing states. According to figures given out from the office of the Newaygo County Board of Agriculture the average price per bushel f. o. b. shipping point was 62 cents a bushel. If the cost of packages,

packing and marketing charges is 40 cents, which is the figure here, it leaves only 22 cents a bushel to the grower.

Growers from this county who have been working on this problem for the last few years feel that they have now arrived at the only possible feasible and plausible solution to the matter to create what is now a liability into an asset.—S. S. Nesbit.

### SEED IMPORT FIGURES

THE March 26th issue of the Michigan Farm Bureau News makes public the total import of French red clover seed—seed imported since last October for various middle west points, as set forth by the records for the ports of New York and Philadelphia. Here is the record:

Toledo, 3,358,820 lbs.; Chicago, 2,755,200 lbs.; Crawfordsville, Ind., 871,000 lbs.; Ft. Wayne, Ind., 84,000 lbs.; Ligonier, Ind., 436,000 lbs.; Richmond, Ind., 165,000 lbs.; Milwaukee, 777,000 lbs.; St. Louis, Mo., 31,500 lbs.; Lincoln, Neb., 31,500 lbs.; Buffalo, N. Y., 420,000 lbs.; Detroit, Mich., 26,400; total, 8,957,320 lbs.

The remainder of the 17,366,430 lbs. of French red clover seed was for far east and west points. Michigan State College test plots on French red clover show that disease and winter killing leave an average of about 30 to 40 per of a stand to start the second season, as against 80 to 90 per cent of a stand for Michigan grown or domestic, northern grown clover.

### SURVEY SHOWS FARM INTEREST IN RADIO

RADIO is changing the marketing methods of entire groups of farmers, according to nationwide survey recently concluded by the National Farm Radio Council.

Importance of radio in the marketing of farm products is illustrated in the National Farm Radio Council survey by reports from 43 states, more than 46 per cent of the replies giving specific examples of cash savings effected by the use of the radio. Practically every report indicated the importance and value to the farmer of having market reports from 24 to 48 hours earlier than they are obtainable through any other medium.

## Michigan's Forest Fire Fighting Flier

IN continuation of the practical extension work carried on for a number of years past by the Michigan State College, the Department of Agricultural Engineering of that institution has this spring sent out a forest fire fighting special train to travel through both the Lower and the Upper Peninsula under the direction of Larry Livingston, who is already well known to farmers of this state as an authority on drainage and land clearing.

As the data collected by the Conservation Commission during the past seven years shows that twenty-one per cent of all forest fires originate in land clearing operations, Mr. Livingston has planned this tour to correlate the two subjects of land clearing and controlling forest fires. The special train is composed of three cars. One car is an exhibit room, one a lecture hall and the third the living quarters of the instructors and train crew. In the exhibit car about three fourths of the space is given over to a most comprehensive forest fire exhibit. How forest fires start, what devastation they leave in their path, and varied measures for checking them are all shown in graphic and unforgettable fashion. The remaining space is used for a land clearing exhibit with special emphasis upon the precautions necessary to prevent forest fires. Here are shown models of home made devices for land clearing, such as Paul Bunyan's hammer, the scissors stone boat, the Frost trip, the chain whip and the Michigan root hook. Here also are all the common blasting tools needed when stumps are removed by the aid of dynamite, such as the soil punch, soil augurs, spoon shovel, tamping stick and blasting machine. The proper methods of priming dynamite cartridges are illustrated, showing the use of a cap crimper for attach-

ing blasting cap to fuse and the correct position of the cap in the cartridge.

At each stop a meeting is held in the Lecture car at a previously advertised hour, at which Mr. Livingston and other members of the Agricultural College staff speak on the various phases of forest fire control and land clearing. Questions are answered and special subjects of local interest are discussed. One of the most interesting subjects presented and one which always brings forth a good many questions is the use of explosives for blasting stumps and boulders and even for checking forest fires. In addition, one or two motion picture reels are generally shown at each session. Among those which arouse greatest interest is the film "Dynamite at Work" which shows the remarkable adaptability of this explosive for various operations in agriculture and other industries.

Farmers for many miles around each town usually gather for the meeting. Indeed so popular are these lectures that as the assembly car seats only 120 it is often necessary to repeat the performance three or four times in one afternoon. In the first ten days that this train was out, 5800 people attended the meetings and visited the exhibits. According to the advance schedule, the train will be on the road until the first of May, making 28 stops in the Lower Peninsula and 52 in the Upper. Of course such a tour is possible only through the cooperation of the railroads with the College. Before the Forest Fire Fighting Flier reaches its last stop it will have travelled over seven different railroads. The value to Michigan farmers of having up to date methods and the personal advice of experts brought to their very doors is inestimable.



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## Spending a Day at the Birthplace of Flivvers

Editors Put in a Busy Day at Ford's Factories at Highland Park and River Rouge

By MILON GRINNELL

MY head is all in a whirl. I spent yesterday as a guest of the Ford Motor Company, touring for the first time their huge factories at Highland Park and River Rouge, and I am quite bewildered with it all. I knew that the Ford factories at these two places were large and thousands of men were employed doing many different kinds of work, but not until yesterday did I realize how large these factories really were or how many different kinds of work was done under their roofs. And I am not sure that I fully realize it yet as we covered it all so hurriedly, seeing in one day what it takes two weeks to see properly.

A special party of farm paper editors, which included the writer, met in the visitor's office of the Ford Motor Company at Highland Park, Tuesday, March 30th, at the request of the company to study at close hand what they were doing. The group included editors from Ohio, Indiana, Kansas and Michigan. Shortly after 10 o'clock, roll was called and all were found present so a most efficient and extremely well informed guide took us in tow and we began our tour of inspection. How many departments we visited in this plant I fear to even estimate because it seemed like thousands though I know it was not.

### Weaving Cloth

We saw how the cloth that goes into our flivvers is made, beginning with the wool and cotton and following it through the many processes to the finished cloth which is eighty per cent wool and twenty per cent cotton. We saw how they stretch wire, beginning with one as large as your little finger and in the end it is no larger than one of the hairs

on your head. Then we were shown how the insulation and covering are put on the wire by machinery recently invented by this company's engineers.

And this is not all of the machinery designed especially for the Ford company by its own engineers for use in the manufacture of the many parts of their cars and tractors. Most of the real important machines are of their own design and many other manufacturers have Ford engineers to thank for some of their important automobile manufacturing equipment.

### Making Tires

In another department we saw men busy apparently running a rubber hose through a sausage grinder, but upon close inspection found it was a rubber composition and was cut in certain lengths and made into steering wheels. Just a little ways beyond this we discovered how this company is beginning to manufacture tires, and saw several "Ford Cords" in the making and others ready to be put on new-born flivvers.

The mention of "new-born flivvers" brings to my mind a remark made by one of the editors. In each department there are Fords with small wheels carrying supplies about and each one is equipped with the typical horn. We had not gone far before the honk of one of these horns was heard, and one of the editors exclaimed, "Must be another flivver was born. I just heard it blat."

While we were inspecting the Ford Cords the guide informed us that the company had been making them only a short time and intended to increase production as rapidly

as possible. It is not their plan however, to manufacture all the tires needed for their cars, at present at least, but it is policy of the company to manufacture at least a small part of everything that they use so if their outside supply is cut off they will be in position to begin production of that part on a large scale in a short time.

We visited the foundry at Highland Park where crankshafts are made. They are first stamped out and then hung on endless conveyors to make their way from one department to another, each department doing its certain work and then passing them along, until they are finally inspected and declared as ready to be put in the motors.

### Cars Assembled

It is at Highland Park that the cars for the Detroit territory are assembled and this work is very interesting to watch but we had so many things to see and so little time to see them in that we were obliged to pass this up. Other things we missed were the department where they make their artificial leather, and hard rubber, called "Fordite," and their battery making department, although we did pay a hurried visit to the power plant and saw one of the 63,000 horsepower generators being constructed for the power plant at River Rouge where it is planned to have a production of a half million horsepower before their building plan is completed.

There were countless other things we would like to have seen but it was noon and we had to return to the main building where lunch awaited us after which we were to be taken to River Rouge. On our way

back we stopped a moment to watch a long line of men drawing their pay, and were informed every day was pay-day some place in the factory, as there are over 50,000 men on the payroll at this one plant and it would be impossible to handle them orderly any other way. Also dinner was being served, large hand-trucks loaded with food, milk, coffee and candy, being placed at convenient points and attended by uniformed men in the employ of the company who sold the supplies to the men at slightly above cost. We passed through the company's stores where employees may purchase for themselves and family meat, groceries, shoes and clothing at very reasonable prices.

### Off for River Rouge

After a plain but wholesome lunch we were loaded into Lincolns, the big brothers of Fords, and were off for the River Rouge plant where the tractor is made. On the way we passed the beautiful Ford hospital in Detroit, by the Lincoln plant, then past Mr. Ford's old home, the Ford school where he learned the three Rs, the Ford Airdrome where new buildings for the production of planes are being constructed, by the present home of Mr. Ford on the outskirts of the city of Dearborn, where the Ford Engineering Laboratory is located. In this same building you find the radio station, WWI, owned by the Ford company, and the international weekly, The Dearborn Independent. Being in a hurry we did not have an opportunity to go through this building, but drove slowly by and then continued on to River Rouge.

We though we had seen the most wonderful manufacturing organization (Continued on Page 26)

## Underlying Causes For Change in Conditions in Regard to Taxation

By "A MEMBER OF THE STATE LEGISLATURE"

TAXATION, a subject of general discussion ever since the dawn of history, has become a matter of more varied thought in this country and a more common topic of discussion within the past few years because of certain basic changes effecting the burden of taxes upon business and upon the individual. There are several underlying causes for a change in the conditions in regard to taxation, the principal being the fact that the United States has become largely a "settled-up" country, with the passing of its original natural resources and the growth of its population, the increase of the cities and their drawing of people from the rural sections, and the speculative movements which have come from these things.

There are two other conditions, not so basic, which have had a great influence in recent years. These are: The addition of numerous new services furnished by the government to the people; and, the failure of government to modernize itself by following the example of business in creating larger working units and thereby cutting down overhead costs.

Within the past generation our federal, state and local governments have busied themselves with a great number of activities in doing things which were either not done before or were left to the individual to do. Every new activity and every increase in activity has caused the hiring of more government servants. This has been a general condition. The effect has been to form what is called a "bureaucracy,"

THIS is the first of a series of short articles on taxation by "A Member of the State Legislature" to appear in The Business Farmer. The author prefers that we do not make public his name, desiring to write these articles unhampered by politics, and stating his opinions based on years of close study as just a member of the legislative body at Lansing. We feel sure you will find them interesting, and invite letters commenting on them.

composed of persons who are dependent upon the public treasury for their living and who must build up the line in which they are employed in order to broaden their own opportunities.

Each of the new services performed by the government, whether it be in education, in health service, in agricultural and business aid, in highway building, in regulation of railroads and utilities, or otherwise, is the result of some demand by a sufficient number of persons to bring about its adoption. Taken altogether, they cost a great deal of money. As to whether they are worth what they cost is a matter to be determined in each case. So long as the people want these services the only method of economy is to bring these services into cooperation through closer union and management.

President Coolidge has won almost unanimous approval by his endeavors to do this with the federal bureaucracy. So far the progress along this line by state and local governments has been much less.

The second point, lack of modernization in government, consists of adhering to small units of operation. Industry has discovered that the way to cut costs is to bring together small organizations into larger ones, to install capable management and to make those in control responsible for financial results. A man who can really earn a large salary can do way with costs many times the amount of what he himself receives.

### Merge Bureaus

Some of the states, of which Michigan is one, have made a start along this line by merging many bureaus into a small number of departments. There is still much to be done in this way. One drawback is that the salaries offered the managers of the new departments have not been made big enough to attract the type of men who can give cheap administration.

Politics and low salaries always go together.

Wherever the tax burden is painfully felt, there is a natural inclination to try to shift this to other classes or individuals. Two things

tend to defeat such endeavors. This first is that it does not go to the root of the matter by cutting actual costs but usually takes a form of adding a new governmental activity and thus hiring new servants; the second is that taxes, like water, have a tendency to find their level and that they eventually come back upon everyone.

### One Cause of Distress

One cause of tax distress has been the decline in farm values in many parts of the country, a movement which has not entirely spent its force. There is reason to believe that this will be followed within two years by a similar decrease in values of city and suburban property. These values were artificially inflated by the shortage of buildings due to the war. In the last few years a vast number of new buildings has been erected and, when there are enough buildings, demand for vacant property will cease and prices will fall.

Taxation can be raised from only two things, capital and earnings. A tax upon capital, that is, upon money invested, immediately lessens business activity and thereby reduces earnings in much greater proportions. Likewise, taxation upon earnings can only be of such amount as will leave the incentive to the people to work and save.

Study of the subject brings the conclusion that the most practical method for lowering taxes lies in modernizing government in the states, cities, counties, villages and townships, along the lines of modern industrial organization, and thereby cutting actual costs.





Left to right: Mr. and Mrs. M. W. Hess, of Napoleon, Jackson county; Mr. and Mrs. Robert Showler, of Capac, St. Clair county; and Mr. and Mrs. Robert Smith of Vassar, Tuscola county.

## Some More Sweethearts of Fifty Years and Over

Three More Couples Entered in Our Contest to Find Longest Married Couple in Michigan

IN the last issue we published pictures and stories of three of the entries in our longest married couple contest, and promised that perhaps we could publish more in this issue. Here they are! And they too have been "sweethearts" for fifty years and more."

The couples appearing in this issue are: Mr. and Mrs. M. W. Hess, of Napoleon, in Jackson county, who have been married 60 years, this year; Mr. and Mrs. Robert Smith, of Millington, Tuscola county, who celebrated their Golden Wedding eight years ago last December; and Mr. and Mrs. Robert Showler, of Capac, St. Clair county, with fifty-four years of married life behind them.

Mr. Murray William Hess was born in the state of New York but his parents moved to Jackson county, Michigan, when their son was only two years old. His wife, whose maiden name was Mary Elizabeth Swain, was born in Jackson county and has lived there all of her life to date. Her grandfather came there and built the first Baptist church in that county, he being a minister of that creed. There were no roads in that section at that time and the boys and girls followed Indian trails to schoolhouses built of logs with hard seats and benches of the same to get what little learning they could.

After serving with Custer in the Civil War Mr. Hess returned to his home town, Napoleon, where he met Miss Swain. They were married 60 years ago this year and started keeping house on what was later known as the Three Mile Farm, it being so named because it was in three townships and just three miles from each of the three villages, Norwell, Napoleon and Brooklyn.



Raymond Wallace and his Reserve Junior Champion Duroc in the open class at the 1925 Michigan State Fair.

THE object of club work should be to help make rural life more attractive and prosperous by encouraging the young people to work out practical problems. If club work continues for several years, its effects will be to enlarge the outlook of the club member, improve the quality of animals and develop leadership among the younger boys and girls of the community. This is a big program for a leader who, to a large extent, determines the success or failure of an undertaking of this kind. The project year will be divided into three separate divisions, namely; financing and obtaining stock, growing period and exhibiting.

### CONTEST CLOSES MAY FIRST

OUR longest married couple contest is coming along very nicely. To date we have twenty-five counties represented and some of the counties have as many as four entries. New entries are coming in every mail, so it looks as though by the closing date, May 1st, practically every county in the state will be represented.

If you are eligible for the contest you better make your entry now. The qualification is that you have been married at least twenty-five years, but if you are to stand a chance of getting any of the prize money you must have at least a Golden Wedding to your credit. In making your entry give complete names, ages, how long you have resided in this state, how long married, occupation, number of children, grandchildren and great-grandchildren, as well as any other interesting facts about your married life. Also we must have a picture of the couple. The prizes are: First, \$5; Second, \$3; Third, \$2. And the closing date is May first, 1926.

To this union were born eleven children, eight girls and three boys, and all but one are living at the present time. There are also forty-four living grand-children, who, with the husbands or wives, bring the total number to sixty-three calling them grandpa and grandma. The three oldest children are grandparents, their children having fifty-three children, so there are fifty-three great-grand-children.

They lived on their farm up to a few years ago when they moved to the town of Napoleon. Both are active, Mr. Hess caring for a garden, flock of chickens, lawn and furnace, while Mrs. Hess does all of the work in a large house in which they live, except when a daughter or grand-daughter comes in. Mrs. Hess also loves to make quilts, comforts, and different kinds of sewing as well as fancy work. Also she does much reading and is still quite active in her church work.

Mr. and Mrs. Robert Smith, of Millington, were married fifty-eight years on the seventh of last December. Mr. Smith was born in the province of Ontario, Canada, February 14, 1848, and came to Michigan at six years of age, settling in Arbel township, Tuscola county, with his grandparents. His wife, Lucy D. French, was born January 26, 1850, in Pennsylvania, and came to Michigan in 1865. Within two years she became a bride. Seven children, four girls and three boys, were born to Mr. and Mrs. Smith and six are still living. Also there are twenty-two grandchildren and fourteen great-grand-children living. They worked at different jobs until 1875 when they purchased a piece of wild land, covered with heavy timber, and began to hew out a farm. The day there was enough floor laid in the bed room to set a bed on they moved into their home. They hired twenty acres slashed and fifteen

cleared. The rest of the eighty they cleared themselves, often working from daylight in the morning until midnight and keeping it up day after day.

They remained on the farm until March, 1902, when they took the job as keepers of the county poor farm. After seven years they again returned to their farm where they lived until October, 1920, when they moved to the village of Millington, where they now live, enjoying fairly good health.

Mr. Smith gives some interesting information regarding schooling in those days. He says "The first schoolhouse in Arbel township was built on grandfather's farm. Then the law was such that three months of school had to be held before a district could be formed. The teacher was paid by the rate bill, and each parent furnished so much wood for each child sent to school."

### Mr. and Mrs. Showler

June 28, 1926, is the fifty-fifth wedding anniversary of Mr. and Mrs. Robert Showler, of Capac. They were married in Arkona, Ontario, Canada, and lived around there until thirty-six years ago last month when they moved to Michigan.

A total of nine children were born to them and three died in infancy. The six living children, four boys and two girls, are married, and with the exception of one boy, reside in Michigan. There are fourteen grandchildren, six boys and eight girls.

The pictures and stories of other Michigan couples entered in our contest will be published in future issues of THE BUSINESS FARMER as rapidly as we can spare space for them.

## Value of Boys' and Girls' Club Work to a Community

By WILLIS CAMPBELL

Tuscola County Club Leader

Usually the banks of a community are glad to help in the financing. Our plan in Tuscola county is to have the boy or girl sign a note, the length of time depending on whether he gets a pig or a calf. Our aim is to have the note run until the animal is in a position to return something on the investment. The boys and girls in the pig club usually sell a pig or two from the first litter and the boys and girls with calves usually send the milk from their heifers until the note is paid.

No amount of care in the selection of feeds fed and no amount of skill in fitting and showing can successfully overcome the handicap of having an ordinary or inferior pig or calf to start with. Since each animal that is entered in the first year project will be a candidate for second year work, there is a double reason why this selection must be given much care. In Tuscola county, our plan is to select animals from a production and type standpoint. Any animal not showing some of

both of these qualities is not considered for club work. Last spring when we wanted ten Holsteins for Club Work, a committee started out to look for calves. We covered close to 100 miles that day and bought one calf. This same calf was first in club work and fifth in the open classes at the 1925 State Fair. She came from a high producing herd and had a splendid top line. Our day's work had not been in vain for we had bought an animal that was sure to do the youngster that drew her some good. Her prize money last fall totaled \$46.96. In two more days of travel we succeeded in getting the remainder of the calves.

Production also must be kept in mind especially with calves, for in most cases these animals are foundation builders. Most of the animals in our section have gone into herds where they were the only purebreds. Here was a splendid chance for a comparison and a very critical one in some cases, with the purebred usually winning out. On October 1st, five of our second year heifers had freshened. Two of them were leading the 2 year old division of the cow testing association with an average of 1040 pounds of 3.6 milk. Another one of this group is averaging 33 pounds of 3.5 milk a day and bids fair to give the other

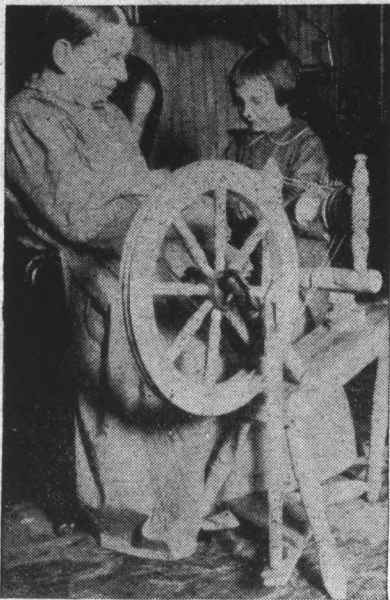


These heifers are club heifers and all placed in the open class. They are the kind that would do credit to any herd.

(Continued on Page 22)



# THRU OUR HOME FOLKS' KODAKS



**GRANDMA TEACHES HOW TO SPIN.**—Sent in by E. R. Henryes, of Alpena, Alpena county.



**"THOSE WERE THE GOOD OLD DAYS."**—This picture was taken near Copemish, Manistee county, during the lumbering days, and recently sent to us by Jim Harrigan, of Kingsley.



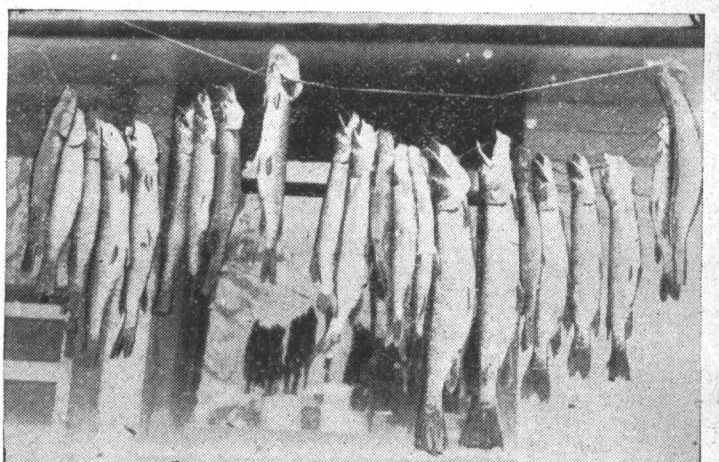
**"GRANDMA KILLMAN" AND HER PET COW.**—From Mrs. A. R. Lantner, of Cedar, Leelanau county.



**FROM THE UPPER PENINSULA.**—"Five of us went into Dickinson county during the deer season and this is what we brought home," writes John J. Buskirk, of Alamo, Kalamazoo county. "I got the bear and the deer second from the left."



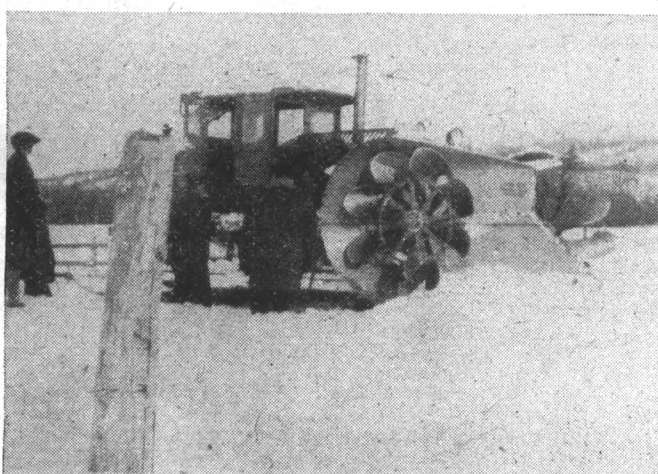
**TWO DEARS.**—Marie and June, daughters of Mr. and Mrs. E. E. Deline, of Midland.



**HERE ARE A FEW BEAUTIES.**—This picture was sent in by H. C. Snyder, of Copemish, Manistee county, who writes, "The pike were caught at Wellston Junction on the Manistee river and the speckled beauties in Big Beaver Creek."



**"PROUD AS A PEACOCK."**—Do you blame this youngster for being mighty proud of his calf? From Rex Roberts, of Grand Rapids, Kent county.



**HOW THEY KEEP THE ROADS OPEN IN OTSEGO COUNTY.**—This is the kind of snow plows they use in northern Michigan, according to Violet Smith, Vanderbilt.



**CHARLES AND TURK.**—Mrs. Lewis C. Brown, of Munith, sent this picture of Chas. Holt, Riverdale, and his dog.



**GETTING A LESSON IN THE ART OF MILKING.**—The three children of Mr. and Mrs. Joe Freel, of Tawas City, Iosco county, are teaching their small nephew how to milk.



**"SHOOT!"**—"My father holding my team," writes Frederick Milting, Washington.



**ONE HORSE POWER.**—Elmott Washburn's auto is only one horse power but it will go where many 40-horse power cars will not. Mrs. J. Crawford, of Elsie, sent the picture.



## GROWING ONION SEED

I am writing for information about growing onion seed. I have tried for three years and have always failed.—L. B. Lakeview, Mich.

**T**HE raising of onion seed or any other type of garden seed is a highly specialized business. The present high prices of onion seed which has been caused by the failure of the seed crop has turned the attention of many Michigan growers to this business. We might give in a general way some of the more important things to be observed in the growing of this crop.

Onion seed is grown from bulbs of the previous year which have been stored over winter and which should be planted early in the spring. It is important that the bulbs used for seed production should be free from disease and of a good type for the variety. If one has not raised his own bulbs he will be compelled to buy them either from some other grower or in the open market. It would be better to look up some grower who has his crop still on hand for if one buys in the open market he is likely to get a mixture of types or varieties. The bulbs are planted in furrows 3 to 4 feet apart at a distance of 6 inches apart in the row and at a depth of from 4 to 6 inches. They should be kept well cultivated, free from weeds, and the seed should be carefully harvested and cured.

There are two ways to sell the crop of seeds. The first one is direct to the wholesale seedhouses and the second to the planter. In the first instance, the grower might find it difficult to dispose of his crop to a seed firm unless he has a contract or else could convince them that the seed stock planted was of the highest type and quality. It is doubtful if the seedhouse would buy a crop of seed unless they were absolutely sure of the quality of bulbs from which it was grown. The second method of selling right to the grower might possibly be followed but the grower would have to be convinced that the seed was of good quality and had good breeding back of it. The reputation of the grower himself would go a long way toward the selling of his product.

There is a Michigan seed grower who has been very successful in the selling of onion seeds to his fellow growers but he has been able to do this largely by reason of the fact that his commercial crops of onions have for many years back borne a high reputation for having quality, truest type and are long keeping.—G. E. Starr, Assoc. Prof. of Horticulture, M. S. C.

## WHO GETS IT?

A dies at an advanced age leaving a widow. There were no children. He leaves two full brothers and five children of a deceased brother. There are also one half brother and a half sister and two children of a half sister deceased. A and wife had a joint deed of a city house and \$10,000 invested in bonds in his own name. The widow also has \$5,000 in bonds. Would the brothers inherit a share of the bonds, and what about the half brother and sister and children of the deceased brother?—G. A. G., Portland, Michigan.

**I**F the real estate is held by husband and wife under joint deed, it would all go to the wife upon the death of the husband. The widow would receive \$3,000.00 of her husband's bonds and one half of the remaining \$4,000.00 and the other half would be divided equally among the brothers and sisters and half brothers and sister. The children of any deceased brother, sister, half brother or half sister would receive the share their parent would have received if living.—Legal Editor.

## SALARIES OF MAIL CARRIERS

What yearly salary do rural mail carriers and postmasters receive and are the postmasters of country towns paid the same as those in cities.—J. B., Gregory, Mich.

**T**HE salaries of rural mail carriers are fixed by law and are as follows: "On and after January 1, 1925, the salary of carriers in the Rural Mail Delivery Service for serving a rural route of twenty-four miles six days in the week shall



## Farmers Service Bureau

(A clearing department for farmers' every day troubles. All requests for information addressed to this department receive most careful and prompt attention, and a personal answer is sent out by first class mail. This service is free to paid-up subscribers, but complete name and address must accompany the inquiry. If we use your inquiry with the answer in this department your name will not be published.)

be \$1,800; on routes twenty-two miles and less than twenty-four miles, \$1,728; on routes twenty miles and less than twenty-two miles, \$1,620; on routes eighteen miles and less than twenty miles, \$1,440; on routes sixteen miles and less than eighteen miles, \$1,260; on routes fourteen miles and less than sixteen miles, \$1,080; on routes twelve miles and less than fourteen miles, \$1,008; on routes ten miles and less than twelve miles, \$936; on routes eight miles and less than ten miles, \$864; on routes six miles and less than eight miles, \$792; on routes four miles and less than six miles, \$720. Each rural carrier assigned to a route on which daily service is performed shall receive \$30 per mile per annum for each mile said route is in excess of twenty-four miles or major fraction thereof, based on actual mileage, and each rural carrier assigned to route on which triweekly service is performed shall receive \$15 per mile for each mile said route is in excess of twenty-four miles or major fraction thereof, based on actual mileage.

"2. In addition to the salary herein provided, each carrier in Rural Mail Delivery Service shall be paid for equipment maintenance a sum equal to 4 cents per mile per day for each mile or major fraction of a mile scheduled. Payments for equipment maintenance as provided herein shall be at the same periods and in the same manner as payments for regular compensation to rural carriers.

"3. A rural carrier serving one triweekly route shall be paid a salary and equipment allowance on the basis of a route one-half the length of the route served by him. A rural carrier serving two triweekly routes shall be paid a salary and equipment allowance on the basis of a route one-half the combined length of the two routes."

As to the salaries of postmasters, the following information is quoted from a statement furnished us by

the Bureau of the First Assistant Postmaster.

"The salaries of postmasters at first, second, and third class post offices are readjusted annually, effective July 1, on the basis of the gross receipts of their respective offices for the year ended December 31, preceding. Postmasters' salaries at third class offices range from \$1100 to \$2300 per annum, at second class offices \$2400 to \$3000 per annum, and at first class offices \$3,200 to \$8000 per annum, as the gross receipts warrant. Postmasters of fourth class offices, or offices where the gross receipts amount to less than \$1500 for the calendar year, are paid on a percentage basis fixed by law of the cancellations of stamps on matter actually mailed at their offices.—H. H. Bellamy.

## ATTORNEY'S FEES

A contracted a debt with B and A had a large quantity of baled hay ready for shipment and A intended to pay the debt as soon as the money was received for the hay. B sued A before all of the hay was loaded on the cars. B hired a lawyer. A did not. Can B make A pay B's attorney fees? B thinks he can.—A. C. T. Grass Lake, Michigan.

—If A contested the case and it was tried in court and B prevailed, B would be entitled to attorney's fee as part of his judgment against A.—Legal Editor.

## CERTIFICATE TO TEACH

A teacher secured second grade certificate in August 1920, had it renewed in August, 1923, securing a renewed certificate. Has had six weeks normal training since securing renewal. Has had ten years experience. What must he do to get a certificate to teach after August, 1926?—M. D., Kingston, Mich.

**I**f the holder of the above certificate had at least five years of successful teaching experience previous to 1921, the last three of

## The Preparation of Ground For a New Lawn

**T**O many anxious inquirers, seeking the solution of lawn difficulties at this time of the year this short resume will be of benefit. The usual symptoms described may be placed in two groups: one where grass is wanted where it never grew before, and the second, assistance in the restoration of old lawns.

The preparation of the ground for a new lawn must be as thorough as for any garden crop and even more so when it is considered that the lawn is a permanent crop. A good loam, well enriched with manure in the fall, finely raked in the spring is ready for the seeding. The usual mixtures sold as lawn grasses consist chiefly of Kentucky Blue Grass, which is undoubtedly the best all around kind for the purpose. Since however it does not produce a lawn the first year, other kinds are added to give the green effect the first season as well as to act as a nurse crop for the Kentucky Blue Grass. Among these are the Red Top, English Rye and the Fescues. The best combination for all ordinary soils is composed of 12 pounds of Kentucky Blue Grass, 5 pounds Red Top and 3 pounds English Rye to the bushel. Three to four bushels may be sown to the acre. In shady situations an addition of Meadow Wood Grass and the Fescues will be found desirable.

Early spring sowing will be found the best, although fall seeding is sometimes resorted to and good effects achieved. The seed should be sown evenly and in two separate sowings, one crosswise of the other. Light raking and heavy rolling should follow the seeding so as to bring the soil in close contact with the seed.

In renovating lawns on a small place where radical treatment cannot be afforded or tolerated a simple expedient may be used. Take a round stick about one inch in diame-

ter and three feet long and sharpen one end of it. At frequent intervals about the ground, drive the stick to the depth of two feet. Make many such holes and into each ram a mixture of fine manure, hardwood ashes and bonemeal. Cover the holes with loam and top place a small piece of sod, beating it down with a spade. The effect of this treatment will soon become manifest and it provides the fertilizer where it is needed without the necessity of spading or plowing the ground. Surface application of well rotted manure and chemical fertilizers are also beneficial. During the season of growth, the lawn mower should be kept so as to leave the grass about two inches long, the cutting to be done approximately once a week. Watering may be found necessary during periods of drought. When done, avoid the usual system of mere sprinkling the surface and thus bringing the roots so close to the top as to cause later injury by the sun. Water thoroughly and preferably after the sun is down. Rolling of the lawn should be practiced several times during the season and is especially essential in spring when the grass roots will be found to have heaved somewhat.

Various weeds are troublesome, but they will be held in check if a good stand of grass is kept up, if all bare spots are taken care of by re-seeding, if weedy manure is not used for a top dressing, if crab grass is cut before it goes to seed in the fall. Special weed killing preparations are upon the market but should not be used without previous knowledge of their content and method of procedure.

In conclusion, don't merely reseed where grass would not grow before, probably the trouble is with the soil. Don't neglect a lawn because it was made right in the first place.—Alex Laurie.

which immediately preceding 1921 were continuous, and if he has been successfully and continuously teaching since the date of issue of the last certificate, this certificate can be renewed by the county board of school examiners without the holder meeting the requirements of the teacher training law as to professional training.

Should the holder not have had teaching experience as above stated, the certificate will be renewable by the holder's filing not later than August, 1926, evidence of having completed four state normal credits, which is 16 term hours of state normal work since the date of issue of the last certificate.—G. N. Otwell, Dept. of Public Instruction.

## GET NEW CERTIFICATE OF TITLE

If I break the block of my car engine that has the title number on and have to get a new block, will I have to get a new title and how will I go at it?—H. D., Honor, Mich.

**I**N the event that the block in a car has been broken and the owner is installing a new one, it will be necessary for him to make new application for Certificate of Title, attaching thereto his old Title for cancellation.

In the event that the new block does not bear a number, he will leave the space provided for engine number blank, and request this department to issue him a special engine number.

Upon receipt of new application, Title attached for cancellation and fee of \$1.00 new Title will be issued accordingly.—Chas. J. DeLand, Secretary of State.

## WHEAT MILLS FULLY AS WELL

I was told the bushel of Michigan grown winter wheat of today would not mill as much flour as it did twenty years ago. If such is the case, I am wondering why?—F. H. K., St. Louis, Mich.

**W**HEAT of today will mill fully as well as wheat twenty years ago, such a variety as Red Rock will mill better.—E. E. Down, Asst. Professor of Farm Crops, Michigan State College.

## CAN CLAIM SHARE

We have rented a farm for one year and one year only, but our contract has been broken and last fall we put in wheat and rye and the man we rented of never objected to it, now can we hold the farm for another year and put in the spring crops?—P. D. R., Vandalia, Mich.

**Y**OUR right to use property terminates at the expiration of your lease. However, if wheat and rye were sown and that fact known to your landlord, without objections, you have a claim on your share of the wheat.—F. T. Riddell, Research Assistant, Economics Department, M. S. C.

## SEND IN TITLE AND FEE

Does a man have to send the title of a car to Lansing inside of ten days if he buys the car for junk. I bought a Ford, got the title for same and lost it until just a few days ago. I never drove the car and never intend to as I have tore it to pieces for parts. If I send the title in now will it be all right?—H. H., Sparta, Mich.

**W**E advise you to immediately send us the title you have with the fee, etc., so that a new title can be issued to you. This new title, when issued, can be returned to us with a statement that the car has been junked and our files can then be finally adjusted.

This procedure is in accordance with the requirements fixed by law. No exception has been made where a car has been bought as junk and therefore the requirements of the law should be carried out.—Chas. J. DeLand, Secretary of State.

## SUE HIM

I signed a note with a man and he left it for me to pay and he would not pay the interest on it at all. What can you do with him?—H. C., Beaverton, Michigan.

—You could sue him and collect the amount you were compelled to pay, with interest, if he is collectible.—Legal Editor.



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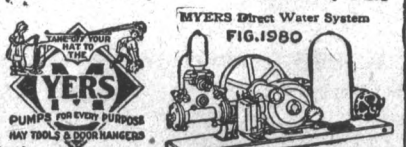
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WHEN WRITING ADVERTISERS  
MENTION POWER FARMING.

## Broadscope Farm News and Views

Edited by L. W. MEEKS, Hillsdale County

(Many people write for Mr. Meek's advice on different problems and he is always glad to give them the benefit of his wide experience without charge. Address him care of M. B. F. and you will receive a personal reply by early mail if you are a paid-up subscriber.)

### Some Different

A YEAR ago when the frost went out of the ground there was no mud. As soon as the frost disappeared the roads were in fine shape, and once floating with a road scraper made them look fine, but this spring it is some different.



L. W. MEEKS

There were no rains in the fall of 1924 and very little snow during the winter, consequently when spring came last year, there was no moisture to make soft ground when the frost left; but last fall the rains came in abundance, and while we have had little snow, the ground is full of water and now, as the frost is nearly gone, there seems to be no limit to the depth of mud in fields and roads. In fact, I never knew the roads to be worse than they are now. No doubt our rural carrier could fully describe them! For the first time in nearly three years, he has had to drive a horse. This makes one think of the time and condition of things when rural delivery of mail was first established. A man in our town circulated a petition among farmers in this vicinity requesting the government to establish free delivery of mail from our local post office, and asking that the man who circulated the petition be given the position of carrier. I think the salary of a carrier in those days was four hundred and fifty dollars per year. There were no improved roads whatever. If, in a day's journey, one happened to find a half mile of gravel road, it was a mistake!

But this carrier of ours was established from our town, the salary of rural carriers was six hundred a year. From that it went to seven hundred fifty, then nine hundred, and now is well above two thousand! Corn and oats were worth from thirty to thirty-five cents per bushel when carriers got six hundred dollars a year. Corn and oats today are worth about the same, while carriers get about four times as much. Carriers and other laborers do not get too high a wage, but some farm products are ridiculously cheap. If however, the mail carriers all used horses, and all other industry was done with horses today, as in the days of twenty years ago, what would the price of grain be? The trouble with us farmers is we do not produce something which can be used as motive power in automobiles.

### But Speaking of Roads

It is true that just now many of our cross roads are nearly, if not quite, impassable, but when roads become normal again many of them will be quite satisfactory, however, there are many of them that are never in good condition and some are nearly impassable the year through. This is a mistake. In our vicinity there are roads which are traversed by a mail carrier, condenser, truck and two creamery trucks, and they are well high impassable year in and year out. There is no need of this in our section, or any other place. Something is wrong somewhere. Talking to township officers now and then does not help matters any. Often the highway fund in townships is voted too low to rebuild these roads. It costs money to build roads, and farmers who must use these poor roads are helping build good roads somewhere else. Get up a petition and go to the township board and demand attention. If funds are not available more money for road improvement should be voted.

When the township officers know what is wanted, and have money enough to satisfy that want, they will be glad to meet it.

The writer just returned from a business trip to Lansing. Part of the journey was by train, part by auto, and part by auto bus. It seems as if the public only used the trains when they had to. Motor buses seem much preferred. I believe one reason is that depots are often off to one side of the town, and more or less inconvenient to reach, while motor bus stations are in the heart of the town, and stops are made at several places. Again, trains are too few and far apart to meet the modern idea of travel. Motor buses are more nearly timed to meet the general traffic demands. I couldn't help but wish we farmers could produce something these buses could use as motive power!

### Musty Hay

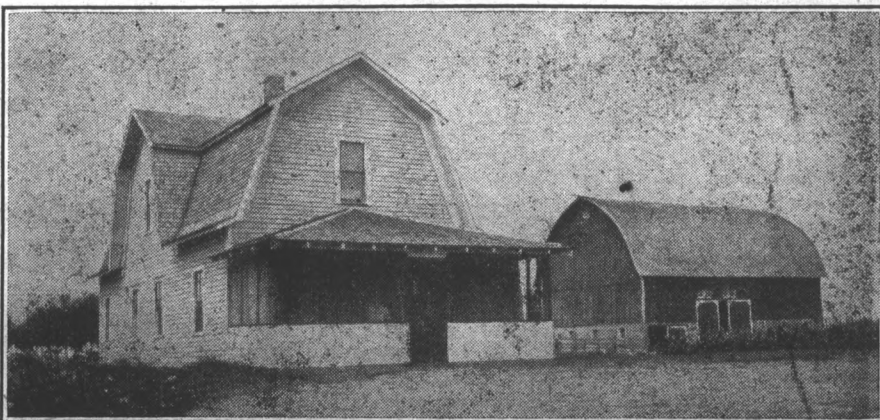
Here is a question concerning musty hay. It seems this man has trouble with hay becoming musty in the bottom of the mow. We have had the same trouble in years gone by. A few boards on the ground in the bottom of a bay will not keep the hay from becoming musty. This mustiness is caused by dampness, and dead air. Even a few rails will not remedy the trouble. We got around it by using some fence posts.

We crossed the posts in an orderly fashion, the rails and poles resting on them would be eighteen inches above the ground. Then we made holes in the barn siding so air could

(Continued on page 26.)

## WHERE OUR READERS LIVE

Haven't you a picture of your home or farm buildings that we can print under this heading? Show the other members of The Business Farmer's large family where you live. Kodak pictures are all right if the details show up well. Do not send us the negatives, just a good print.



ON THE GRISWOLD FARM NEAR BARRYTON.

This is the M. H. Griswold home, near Barryton. The picture was sent to us by Mrs. Abbin Griswold.



# FRUIT AND ORCHARD

— Edited by HERBERT NAFZIGER, Berrien County —

(Mr. Nafziger will be pleased to answer your questions regarding the fruit and orchard. There is no charge for this service if your subscription is paid in advance and you will receive a personal reply by early mail.)

## BOOK-FARMERS

AS scientific agriculture becomes more complicated and more difficult the value of trained investigators at the colleges and in the government departments becomes more and more apparent. Many farmers used to think of these men as "book-farmers" who were trying to add fancy trimmings to the good old practical "strong-back" farming which our fathers practiced. The modern farmer, however, is constantly confronted with problems which our fathers never dreamed of and the book farmers with their laboratories and research work are now as much a part of American agriculture as the farmers themselves. Government scientists have just recently made public a new method of controlling apple crown-gall in the nurseries. Just how much this will mean to both nursery men and fruit growers only time will tell, but it is sure to be a great advance.



Herbert Nafziger

To cite another instance, what would have happened if the experimenters had not discovered a method for controlling San Jose scale? This insect which was once dreaded as the Nemesis of horticulture is no longer feared by fruit growers but if a control method had not been found few fruit trees would have escaped destruction and probably not an apple tree or a peach tree would



Herbert Nafziger, editor of our Fruit and Orchard department, practicing just what he preaches

now be left alive in this country. No apples! What a barren thing life would be without them! No more golden crusted apple pies cooling by the window, no more baked apples, no more apple sauce, and no more rosy-cheeked Spies and Baldwins to eat on winter evenings while the warm fire crackles and the blizzard beats in vain against the door. Little did we realize what a hold this of Fruits had upon our lives, our memories and our traditions until we were confronted with the prospect of losing it.

Yes indeed, we should always be grateful to the "book-farmers" who discover means for controlling plant insects and diseases and to the wide-awake practical farmers who energetically put these discoveries into practice.

## IS YOUR CO-OP INCORPORATED?

THERE are some cooperative associations in Michigan which still operate under the old "collateral note" or partnership plan. By this plan each member signed a demand note which was used by the association as collateral to borrow capital from banks. A small membership fee was charged, by-laws and articles of association were drawn up and the new born organization set sail on the sea of hard boiled

business, in the frail craft of business inexperience and borrowed capital. For many reasons this form of organization was found to be unsatisfactory, and when new laws were enacted which made it possible for farmers to incorporate as "co-operative stock companies" many of these old style associations began to reorganize themselves under the new form; which is designed to combine the advantages of the old line stock company and the partnership plan.

Under the new form the organization is financed by the members through the sale of stock. Each stockholder is entitled to one vote, regardless of the amount of stock which he holds, and a certain limit is put on the number of shares which any one member can hold. This eliminates the possibility of having control of the corporation

pass into the hands of a few men and keeps it strictly cooperative.

Another feature of this form is that sale of stock can be limited to actual growers or farmers and that transfer or resale of stock must be made through the company itself. This feature limits the membership to actual "dirt" farmers and gives the corporation the right to determine who shall be admitted to membership and who shall not.

A recent court case in California should be of interest to those who still belong to the old style association and should also stimulate their desire to incorporate under the improved plan. In this court case individual members had been sued for debts of the association and the members lost the suit and were held liable for the debts. The case was appealed to a higher court and the judgment was upheld. Part of the higher court's ruling read as follows: "An unincorporated association organized for business or profit is in legal effect a mere partnership so far as the liability of its members to third persons is concerned; and accordingly each member is individually liable as a partner for a

debt contracted by the association.

In commenting on this case the U. S. Bureau of Agricultural Economics says, "This case illustrates one of the serious objections to unincorporated associations, and in turn emphasizes one of the great advantages of an incorporated association in which generally the members are not liable for the debts of the association."

## ED McINTOSH SAYS:

Fires have got a queer habit of startin' right after a feller lets the insurance lapse. Peach leaf-curl kinda acts the same way. Speakin' of leaf-curl puts me in mind of a feller I seen once gatherin' some dried-up, curled leaves off a peach tree. I ast 'im what he called to do with 'em an' he says, "Dry 'em an' use 'em for smokin'." It's good stuff. I calls it prime curly-cut." Now THAT feller was an optimist.

Uncle Ab says not to be discouraged; that the hustler may find out that hurry has never been able to take the place of thought.

Give the waste land a chance to earn its way by growing trees.

The new low price of the Sedan is \$895, f. o. b. Detroit. The Special Sedan is \$945, f. o. b. Detroit



# Strength and Safety

Dodge Brothers Motor Cars are built to protect passengers.

That is why Dodge Brothers pioneered in introducing the all steel body, and why they have continued to pioneer by recently improving and perfecting it.

Like the all steel sleeping car—now insisted upon by public opinion—Dodge Brothers all steel bodies are fireproof and as near shock-proof as motor car bodies can be built—an armor of protection in emergencies.

Electrically welded and staunchly braced and reinforced at all points of strain, they are noiseless and built to endure permanently.

They also provide unparalleled

vision. The menace of thick corner pillars—blocking the driver's vision at street intersections—is eliminated. Slim, steel pillars take their place.

One-piece windshields and exceptional window areas further increase driving vision and safety.

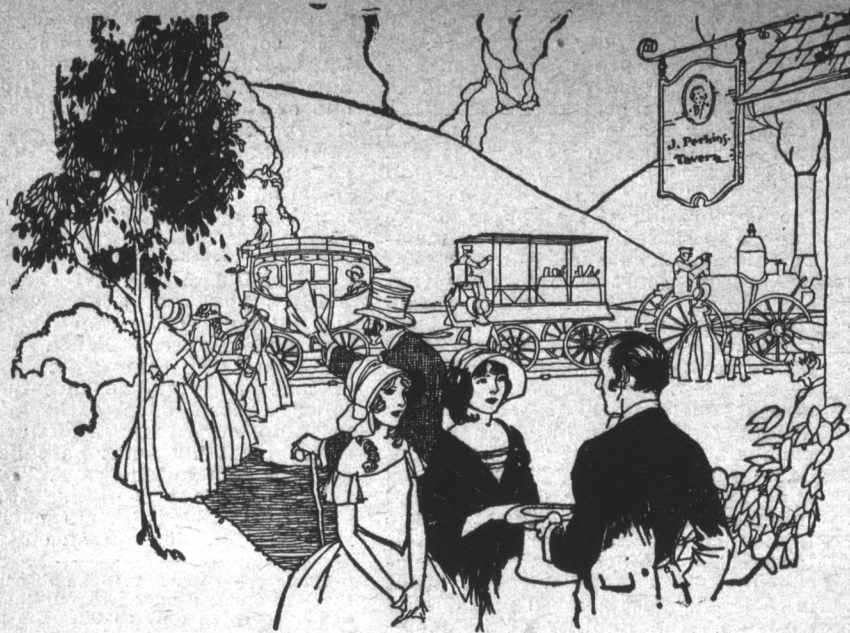
And while safety cannot be measured in dollars, it is gratifying to know that these improved steel bodies exact no penalty from the purchaser.

With production vastly increased, these and many other vital improvements were announced coincidentally with the most attractive schedule of low prices in Dodge Brothers history.

DODGE BROTHERS, INC. DETROIT  
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# DODGE BROTHERS MOTOR CARS





## New York Central's first hundred years

New York Central this year joins that growing company of American institutions with hundred-year records of service.

It was on April 17, 1826, that New York State granted the charter for the construction of the first link in the New York Central Lines—the pioneer *Mohawk and Hudson Rail Road*, over which was first operated in 1831 the historic De Witt Clinton train, from Albany to Schenectady.

That courageous experiment of a century ago became the nucleus of the 12,000-mile railroad system that now stretches across the richest industrial region in the world, from the Mississippi Valley and the Great Lakes region to the Atlantic seaboard, and carries one-tenth of the rail-borne commerce of the nation.

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68 East Gay St., Columbus, Ohio

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**C**HAIRS that flop into beds . . . bags that suck up dirt . . . tiny ticking things that count all day long for you. Daylight any night just by pushing a button. A stream that never stops till you turn off a faucet. Any voice you want, talking to you from a cage on your desk or wall. Actions of yesterday, of people miles away, going on on a curtain before you. Stilled throats singing to you from discs; distant throats singing to you from nothing!

Uncanny, daily magic—this, due to national advertising. Advertisements have given you flashlights, telephones, typewriters, automobiles, cold creams, motion pictures. They have given you new eyes, new ears, new hands, new feet, new faces, new emotions. They have urged such wide use, so lowered prices, that almost wishes are autos, almost beggars can ride. Through advertisements you've laid down the shovel and the hoe. You can buy a whole harvest ready to eat in cans. You've hung up the fiddle and the bow, for a radio. There's little old-time work left in this age of amazing short-cuts.

Read the advertisements—they keep you  
to the fore of modern life.



## What the Neighbors Say



(We are always pleased to receive letters from our subscribers and gladly publish those on subjects of general interest. If you agree or do not agree with what is written and published in this department write your views and send them in. The editor is sole judge as to whether letters are suitable for publication or not.)

### PLACING THE BLAME FOR THE LOW PRICE OF BEANS

**DEAR EDITOR:** In the editorial of the February 27th issue you asked a very important question, "Why the bean growers of Michigan do not look with favor upon an organization of their own to at least help stabilize their market." Dear Editor, my answer is, because we have no Moses who would bring us out of the land into a good land. The Children of Israel were 400 years in slavery. It was not that they liked the slavery, but it was because there was no leader who deliver them out. This is the same trouble with the bean growers of Michigan. We had a bean growers' association, but it existed in name only, or in other words, it was controlled by the bean jobbers. Last year there was organized a bean growers' association for the purpose of stabilizing the market and many bean growers sent in their contribution with the hope that at last a start was made in the right direction, but what became of it? All we have left now is an economic committee to advise the farmers when to sell their beans. I wonder what became of their advice.

We have in this state the Grange, the Farm Bureau, and the state college of agriculture with its market experts who could start the ball rolling with a certain authority, but all they do is go around the state and tell the farmers how to grow two blades of grass where one grew before. When the crop is in blossom, they send out the so-called official crop estimate news. In other words, they tell the bean canner and speculator how many acres of beans are planted and how many bushels of beans the bean growers will thresh with all of the uncertainties of the crop still ahead. I watched the market very close last summer and as soon as the first official crop report came out of Lansing the beans began to drop in price and today the bean farmer has to sell his beans below the cost of production. The low price, the low yield, the high pickage and the moisture besides brings the farmer the lowest income per acre this year, 1925, that he ever had before in the history of bean growing. Some say it is the west beans and others say it is the foreign bean which depresses the price of our beans, but the most blame belongs to the official crop statistician.

Every experienced farmer knows that he cannot tell how many beans he will thresh till he has his beans safe under the roof. The bean growers found that out last fall. The official crop reporter told us that we would have a marketable bean crop of 80,000 bushels long before the bean crop was safe in the barn.

If we had a bean growers' association we could give our own official estimate which would be reliable. We would not only grow the beans but prepare them for market. The beans are now sent out in all kinds of condition. The farmers have no say about the quality. There is no official inspection, no grading of the beans, and the outside buyers are reluctant to buy our beans because they do not know in what condition they buy the beans. Bean growing which was once a profitable crop is no more today.—R. Schultz, Bay County, Michigan.

### TO IDENTIFY TURKEYS

**DEAR EDITOR:** Read with great interest Stanley M. Powell's article in your January 30th issue relative to "nose prints" as a sure method of identifying sheep. Thanks to the inquisitive mind of Verne A. Freeman, Animal Husbandry Specialist at the Michigan State College of Agriculture in applying this method so successfully adopted by the Jersey cattle breeders and thereby making pure-bred stock breeders honest in spite of their good intentions.

Now if the present specialist of animal husbandry of Michigan State College, or some other normal up-lifter, would only discover some

equally reliable and inexpensive method—assuming it is inexpensive—for identifying turkeys, at present more profitable, particularly in northern lower Michigan where they steal their nests in the brush and rear their young in the big openings, than top lambs were ten years ago. Neighboring settlers would then have nothing more to quarrel about but their line fence.—John G. Krauth, Presque Isle County.

### STOVE IN SCHOOL HOUSE

**DEAR EDITOR:** Seeing the question in your valued paper of H. M. of St. Clair County in regard to putting a stove or changing stoves in their school house. I think that law is a very arbitrary one. It violates the right of local self-government which has always been very dear to the hearts of Americans but the time is at hand now when our affairs are governed by a very few men and a few money-mad politicians who don't care how much of the people's money they spend. H. M. says they have a good stove now but that doesn't make any difference under the law as it is now. If the Superintendent of Public Instruction says your stove must go out, she goes, or you will be liable to a bigger fine than the majority of the bootleggers, get. I was told a few weeks ago, by an assistant superintendent of public instruction, that it was against the law to take out an old stove and put another one in its place. Now I hold that simply taking out one stove and putting in another one like it or similar is not changing the heating system as stoves have been used for heating schools, halls, churches and homes since stoves have been made but as I said in the beginning of this article that a few uplifters want to control the money. They want to tell the people how often to bathe, how many times a day to brush your teeth, to sleep on your porch or garden and if you remonstrate you are either a rough-neck or crazy.

Now I would like to see this subject discussed through THE BUSINESS FARMER with the object of having Sections 4 and 5 of the law of 1919 repealed.—O. L., No. Branch, Mich.

### SLEIGHS AGAIN

**DEAR EDITOR:** Well, it seems Mr. Freary, Osceola county, and I are in the minority in our wide sleigh argument since the gentlemen from the very birth place of "wide-sleighs" are unanimous against them. Moreover, they live in the Michigan snow belt so they must be given credit. However, every person using the road must make some sacrifice for its upkeep either in power or money and a great work is being done which should be of benefit to our Legislature, that the law if wrong should be repealed. I do not believe in uninforced laws. I do not believe in jury disagreeing. Jury disagreement is the bane of our judicature of Michigan.

The writer got a small quantity of corn from a Canadian farmer some years ago. It was the yellow flint, twelve-rowed variety. When cutting the corn I found the ears infected with the corn ear worm and also a small weevil less than one-half an inch in length and quite active. The holes made by the weevil were like shot holes and the insect was darker in color than the stalks and with a brown head. I still have the same corn and always raise my own seed and sell some, but have never heard of or seen the insect since.—E. R., Port Hope, Michigan.

### SUGGESTION TO GOVERNMENT

**DEAR EDITOR:** I have been reading lately about the great successes the Bureau of Foreign Commerce is making in expanding the sales of chewing gum, machinery, etc., in foreign lands. Can it be possible that no one has thought to ask the department to find an outlet for Michigan peas and beans. Somebody, somewhere no doubt could use them at a profitable price.—A. H. Olmsted, Gratiot County.



## Harry Vetch Says

### THE TROUBLE WITH FARMIN'

I WUZ over to my neighbor's, Bill Joneses', one night last week and I says to him, says I, "Bill, th' hull trouble with farmin' is that all of us farmers want to do th' same thing at th' same time. Now, ain't it so? Fer instance, take th' price o' pork. Purty steep right now. Th' feller that has a nice bunch o' hogs to sell is a-goin' to make some money—and all of us farmers knows it. Well, what are we doin' about it? I'll tell you. Every dum-fool farmer is a-plannin' on raisin' all th' hogs he can turn off next fall. Now I don't have to be any sicologist or economist, or whatever it is they calls 'em to tell you, Bill, that th' price o' pork next fall ain't a-goin' to make any of us rich. Not by a long shot."

"Well," says Bil, "if they's a over-production they's bound to be a slump in prices on pork or anything else."

"Jest so," says I, "and what are we a-doin' to cut down production? Let me ask you, Bill, how many hogs are you plannin' on turnin' off this comin' fall?"

"Well," says he, "I ought to have forty to sixty if I don't have any bad luck. Depends on how big litters I git."

"There you are!" says I, "Last fall you had ten hogs to turn off and now you're jist as bad as all the rest of 'em. Raisin' all the hogs you can jist because th' price o' pork is high now. How d'you ever expect farmin' to pick up with head work like that?"

"Dunno as it's all my fault," says he.

"Course he had me there. So we got to talkin about crops bein' put in this spring and what fields Bill didn't know about I did. And what I didn't know about Bill did. So we got a purty good survey, as those scientific fellers calls it, of th' hull neighborhood. Plenty of oats goin' in, 'bout th' usual acreage of corn and beans and so forth."

But when we got to talkin 'bout potatoes we found that purty nigh th' hull township is a-goin in fer spuds heavier than ever before. Bill and I have been to purty nigh every auction sale in th' township this spring and whenever we've talked with farmers every one of 'em has told us he was a-goin' to put in from five to twenty acres of potatoes. And this, mind you, after all th' fuss about gradin', plantin', diggin' an' marketin' 'em.

"Well, sir," "says I to Bill, "tain't no use. Yuh can't drum sense into farmers' heads about over-production. They're all bound to do th' same thing th' same year when it comes to croppin'."

"Guess you're right 'bout it," says Bill, "an' th' only thing we can do is to watch th' trend of things and then raise other crops."

Well, after that Bill and I got to talkin' about th' boys down to th' store at Hickory Corners, and th' jokes Sam Toohey, the auctioneer, was tellin' to Hi Billings' sale and afore I knowed it it got 'leven o'clock, way past my regular bedtime, and I plum forgot to say anything to Bill about my errand to his place. Went down there to see about gettin' another brood sow of him and buyin' some seed potatoes if he's got any to spare. Only got three brood sows when I planned on four though I usually only keep one. And I kinda thought I'd put in a few acres of potatoes extra this year 'count you never can tell what th' market will do.

But, Bill and me certainly did have a good talk about over-production and I'll go over and see him tomorrow night and see if he won't sell me another brood sow and 'bout thirty-five bushels of seed potatoes.

#### Herself to Blame

"The eggs I bought from you yesterday weren't fresh!"

"It's your own fault?"

"How my fault?"

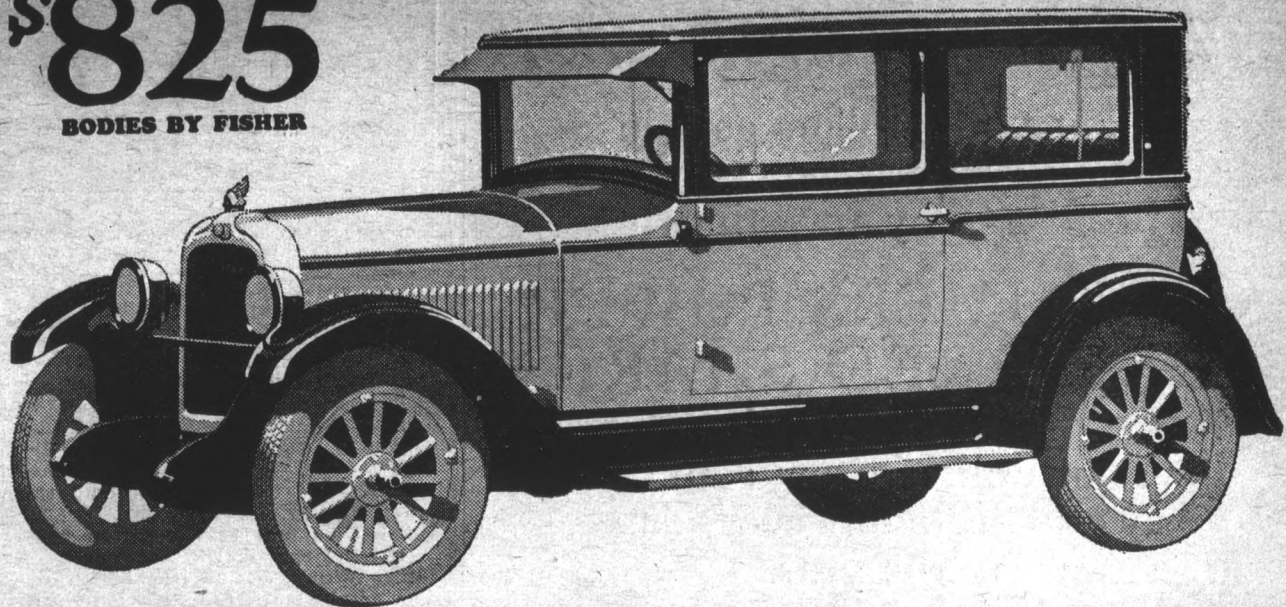
"I offered them to you last week and you wouldn't have them!"

#### Identify

Customer on phone: Hallo! Hallo! Who is this? WHO is this?

Clerk: How do I know? Ask yourself who you are.

COACH OR COUPE  
**\$825**  
BODIES BY FISHER



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During those years, the Pontiac Six was not only designed, refined

and developed, but also subjected to such brutal and unrelenting tests under every conceivable driving condition as to warrant, without reservation, the following statement:

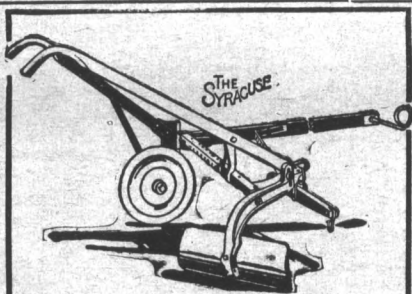
No new car ever came to the public so maturely engineered—or more clearly meriting such universal admiration as is now being accorded this new General Motors Six.

Oakland Six, companion to Pontiac Six—\$1025 to \$1295. All prices at factory

OAKLAND MOTOR CAR COMPANY, PONTIAC, MICHIGAN

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It takes the place of a hand-hoe crew. No other tool will do a more thorough job of cultivating. Easy to guide in and out around the posts and vines. Throws soil toward or away from plants. Hoe blade gets under foliage—no danger of damaging vines. Used consistently, it prevents mildew, improves the quality and increases the quantity of fruit. Spring tooth cultivator attachment, extra.

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Michigan Growing Mash with Buttermilk  
Michigan Laying Mash with Buttermilk  
Make Chicks grow and hens lay

For sale by the local Co-op. or Farm Bureau agent. Insist on Michigan brand. Write for free Poultry feeding booklet. "Dept. D"

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Lansing, Michigan



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With every roll of Anthony Fence your dealer will give you our written guarantee that it will outlast or equal in service any other fence now made, of equal size wires and used under the same conditions.

Send for free booklet, "How Fences Increase Farm Earnings."

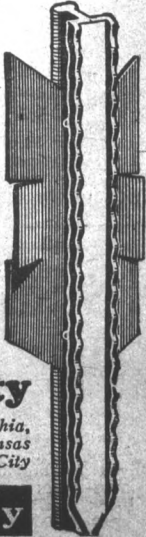
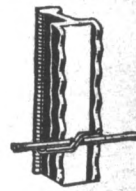
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H. Stenfort of Route 10, Detroit, Mich., writes: "I was over-run with rats—seemed to be several hundred of them. Dog, ferret, traps and poison failed. Tried Imperial rat killer and was rid of them all in short order. Found rat skeletons all over the farm."

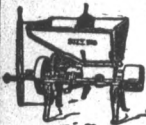


Mr. Stenfort's experience is typical of thousands of users of this new method of killing brown rats, mice, gophers and other rodents. Greedily eaten on bait. Harmless to humans, poultry, pets, stock, etc. Gives the pests a fever, and they die outside hunting air and water.

So confident are the distributors that Imperial Killer will do as well for you, that they offer to send two regular, full size \$1.00 bottles for only one dollar, on 10-Days' Free Trial. Send no money—just your name and address to Imperial Laboratories, 1553 Coca Cola Building, Kansas City, Mo., and the shipment will be made at once. If at the end of 10 days you are not entirely rid of brown rats, mice or gophers, as the case may be, the trial costs you nothing. This offer is fully guaranteed, so write today as you do not risk a cent.—(Adv.)

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**"Combination" Mills**  
Use the famous Cone-Shape burrs. Light Draft. Large Capacity. Solidly Built. Long Life. 10 sizes—5 to 17½ bu. per hour. Handy to operate.

Sacking or Wagon Box Elevator furnished. Circular Free.  
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seed—meaning Northern grown. Early Varieties—meaning sure crops. Supply Limited—Act Quick. Corn is too valuable not to get a full crop. Isbell's seeds—for field or garden—are choice, selected and dependable. Catalog FREE. Isbell's 1926 Seed Annual—giving valuable information about seeds and gardening, and quoting direct from grower prices, sent FREE on request. S. M. ISBELL & COMPANY, 238 Mechanic St., (77) Jackson, Mich.

BERRY PLANTS FOR SALE; PREMIER, Cooper, Gibson and Dunlap strawberry plants, 80 cts. per hundred, \$5.00 per thousand. Cumberland Black Raspberry, and Cuthbert Red Raspberry plants, \$1.50 per hundred, \$15.00 per thousand. Post Paid. Robert DeGurse, Ovid, Mich.



## THE TRANSFORMED LIFE

A NON-SECTARIAN SERMON BY

Rev. David T. Warner

(If there is any questions regarding religious matters you would like answered write to Rev. Warner and he will be pleased to serve you without charge. A personal reply will be sent to you if you are a paid-up subscriber.)

TEXT: "And be not fashioned according to this world: but be ye transformed by the renewing of your mind, that ye may prove what is the good and acceptable and perfect will of God." Romans 12:2.

It was a special night at the Pacific Garden Mission in Chicago. I heard men of standing relate of the time when they came in touch with the Christ, who gave their lives new objectives and new tendencies which had been transfiguring them day by day.

Let us first take occasion to say that the practical injunctions of our text grow out of broad and deep principles that the apostle has laid in previous chapters. Christian transformation has an inseparable connection with Christian thought and belief. The inspired author is beseeching us by "the mercies of God", that is by the gift and power of Christ, to surrender our lives to God in sincere faith. He traces here the direction our faith is to take that we might grow into happy discernment of the "perfect will of God."

"And be not fashioned according to this world." Yesterday, the press had Luther Burbank to say, "Let us have one world at a time." And from other things Mr. Burbank is reported as saying, one is almost led to think that the "plant wizard" with his great scientific mind, is living an abbreviated existence and knows little about a world revealed thru faith. I now know that my dear old mother, who has lived a consistent life of faith and prayer thru the years, can tie me closer to the heavenly world than can some wise intellectuals. The Christian believes that there is another world to which we should be conformed, and not to this one. He leans hard against the spirit of his Master who said that his disciples were not of this world even as he is not. Our Lord surely meant that in his loves and aspirations, and consequently, in his practise and conduct, he was unlike the world, or the evil spirit of his age. And this is to be the inward conviction of his followers.

Now, the world today is the same world in which our Savior lived, O, it has been sweetened a great deal by the heaven of Christianity; slowly, Christ is transforming the opinions and hearts of men; but much unbelief and rebellion remain. Multitudes are living in open repudiation of the spirit and ways of the Christ. Christian truth is yet crushed to earth. So, let us heed the earnest word of the apostle to be not fashioned to the tendencies of this generation which separate us from God.

But how near the border line are many of our thoughts and practises! How our estimate of things; of home life, of amusements, of business methods, of what to read, are more like the unchristian world than the Christian. Repeatedly, we are asked as to the harm of this or that. A better question is, "What good will grow out of its practise?" The Christian is dedicated to the good he can do, and he refuses to indulge in pleasures in which there is possible harm to himself or others. "Prove all things; hold fast to that which is good; and abstain from all appearance of evil", is as timely today as when originally spoken. We are in danger of condemning ourselves when we boast of a breadth of mind or quality of faith superior to that of our fathers. We are to be a set-apart, a peculiar people; but not in cultivating singularities of dress or manner just to be outwardly singular or different. The marks of the Lord Jesus are seen in the spirit and practises of one's life. As humans, we have many things in common, but as Christians we have ideals and intimacies that are very unlike the world. This inward grace makes one different and peculiar in one's social and business contacts with the world.

"But be ye transformed by the renewing of your mind." Verily, the

renewed mind is the foundation of a transformed character. "Be ye transformed" is the positive side of the exhortation, of which "Be not fashioned" is the negative. But anyone who is interested in making his life new, knows how hard it is to loose himself from bad habits thru mere negative efforts. And often we excuse ourselves by saying that our imperfections are just the weaknesses of the flesh. We have an easy way of disavowing responsibility by asserting evil tendencies were born and bred in the bone. But, if we would be made whole, we must believe that the Gospel is more than motive; it is a new ingredient planted in the heart that gives us power to bind the strong man within. The evangel of our text would give the life a new gift, a rational and determined setting of the affections on things that are above and not on things below. This will make possible a renovation of the heart and a spiritual unfolding of the nature.

We accept the truth that one's mind or thought moulds the character. Was it not Thackeray who said, "We sow a thought and reap an act; we sow an act and reap a habit; we sow a habit and reap a character; we sow a character and reap a destiny." So, there are but three steps to heaven or hell: acts, habits, character. Paul is pleading that truth become planted in the mind to free us from the old and sinful type of life and to arouse a taste for the saved state. All of us can think of lives that have been transformed thru the revolutionizing nature of truth.

Therefore, the Gospel offers hope for the blindest eyes and for the hardest heart. A surprising number of church-members would be converted were it not for lazy and unfocused minds. The success of your community church depends upon banishing the unloveliness and ignorance of its members thru renewed convictions of mind. It is the slothful and unthinking Christian that augurs danger. It avails our character nothing to take off our coat and fight for the Bible just because it was mother's book; or, to just say we are Christians. The honest thinker values the Christian theory by applying it. He sees himself carrying it out, thus learning the value of the new above that of the old. Profession alone counts for naught. We must hunger for and feed upon the words of eternal life.

"That ye may prove what is the good and acceptable and perfect will of God." Moffatt has, "able to make out what the will of God is." The outgrowth of a renewed mind is an ability and power to determine God's will and know what he would have us do. "The things of God none knoweth save the spirit of God." The thoughtful, prayerful Christian is a peculiar knowledge and discernment of things good and evil and so, is led to a living fellowship with God.

Finally, everyone is called to a definite Christian use, is loosened from sinful inclinations and made free to grow into Christ-likeness.

### BIBLE THOUGHTS

THOU SHALT LOVE THE LORD thy God with all thy heart, and with all thy soul, and with all thy strength, and with all thy mind; and thy neighbour as thyself.—Luke 10:27.

LOVE, JOY, PEACE, LONGSUFFERING, GENTLENESS, GOODNESS, FAITH, MEEKNESS, TEMPERANCE: AGAINST SUCH THERE IS NO LAW.—Gal. 5:22, 23.

LET THIS MIND BE IN YOU, which was also in Christ Jesus. Let nothing be done through strife or vainglory; but in lowliness of mind let each esteem other better than themselves.—Philippians 2:5, 3.



# RADIO DEPARTMENT

EDITED BY JAMES W. H. WEIR, R. E.

(Any questions regarding radio will be gladly answered by our radio editor. You receive a personal letter and there is no charge if your subscription is paid up.)

## M. B. F. MARKETS

The Business Farmer radio market reports and farm news are broadcast daily, except Saturday and Sunday, through station WGHP, of Detroit, on a wave length of 270 meters, beginning at 7:00 P. M. eastern standard time.

## A TREAT FOR DAIRYMEN



CHAS. STAFF

**F**RIDAY evening, April 16, every dairyman in Michigan and nearby states who has a radio will want to be "tuned-in" at 7 P. M. on WGHP to get the talk of Chas. Staff, dairy expert, on the M. B. F. radio program. Mr. Staff, who is a specialist in the

matter of feeds and feeding, and director of the Larro research farm, will take for his subject "The Business of Dairying." Remember the date and hour.

## THE USE OF METERS

**T**HE use of the voltmeter and ammeter in connection with radio, especially the radio receiving circuit is very desirable. It is very unfortunate that the question of cost often proves a handicap to the average set owner.

Meters afford a definite check on the condition and operation of batteries that are used in connection with receiving and to include them in your radio equipment is an act of wisdom.

Take for instance the plate milliammeter with a full scale range of from zero to one hundred milliamperes. Such a meter is admirably suited for determining the rate of current flow in the "B" battery or plate circuit. In other words it permits the amount of current drawn by the entire set to be measured in milliamperes.

Another measurement of note is the voltage of the "B" battery. This should be measured in order to determine the condition of the battery not collectively but individually. If your "B" battery voltage drops below two thirds of its rated voltage it means that the use of such batteries will cause distortion, noise and weak signals. In other words for the most efficient results you should junk your 22½ volt batteries when they read below 14½ volts and your 45-volt batteries when they read below 30 volts. Every "B" battery is made with a certain rated period of life. The unit of measurement of this life period is called milliamper hours. In other words it means that a certain number of milliamperes may be drawn from the battery over a certain period of time before the battery is exhausted. Take for instance a battery rated at 2500 milliamper hours may be discharged at the rate of 25 milliamperes over a period of 100 hours. It is obvious then that as this capacity of the battery is reduced the voltage as rated of the battery is also reduced. Thus the importance of the voltmeter and the milliammeter can be seen clearly if the true condition of the operating units of the set is desired.

The voltmeter test of the "B" battery of course is applied directly across the terminals of the battery. If it is desired to test the operating voltage of the filament circuit it may be inserted in this circuit. Here its reading will enable you to determine whether or not you are delivering the proper voltage to the tubes.

In this particular test however, the usual 50 volt voltmeter will be found too large for accurate reading of the filament circuit and you should employ one of say from zero to ten volts for best results. The "B" battery reading should be taken momentarily as such a test is a direct short circuit on the battery

which if kept for any length of time will injure the life of the battery.

In the case of the milliammeter, however, it should be inserted in series with the negative lead of the "B" battery line. In such position it will give a reading covering the amount of current being consumed by detector and amplifying tubes.

## THE NEW TUBES

**T**HE new UX-120 and UX-112 tubes are designed not to replace existing tubes but to supplement the use of the existing tubes in various combinations in which the older tubes are not large enough to handle the existing power which is present.

As an example of the UV-199 tube when used in a neutrodyne receiver or in the last stage of an audio frequency amplifier that is used with a superheterodyne will not handle the relatively large power than is present. Two expedients are necessary in order to make the UV-199 tube operate in a satisfactory manner in the last stage. One of them is the familiar push-pull fashion which was inaugurated in broadcast receivers several years ago.

In this type of amplifier two tubes and two transformers are used in

one stage of the amplifier. Later on it was found this method did not have to be resorted to, but that the distortion which was almost always present in a UV-199 high power set could be eliminated if two UV-199 tubes were connected in parallel—grid to grid, plate to plate and filament across the battery line.

Replacing the UV-199 type tube in the last stage of an audio amplifier we now have the much more efficient UX-120 tube.

## COMMENTS

Please send me a pad for the market report. We enjoy the programs from WGHP very much and the market reports are a great help. Hope you will keep it up.—John Speicker, Wayne County.

Please send me a farm market report pad.—Robert Romsberg, Tiffin, Ohio.

I have been listening over the radio to the market reports and have been informed by your announcer that we could get pads to jot down the market report on. I would like very much to have you send me one.—T. J. Drott, Monroe County.

Please send me a market report pad. We are interested in your market report and like it very much.—Margaret Brunke, Macomb County.

Will you please send me your market pad for radio use. I have heard your market reports every evening and find them quite a help.—F. A. Addison, Tecumseh, Ontario, Canada.

Please send me one of your market report pads. We enjoy your radio programs very much.—Harold S. Craig, Lenawee County.

We enjoy your radio markets and programs every evening. It comes in time.—Jos. S. Hawley, Ingham County.

I thought I would drop a line to tell you we enjoy your farm program very much. It comes in just at the right time when the daily work is done.—Francis Burns, Macomb County.

We have been receiving your market reports which have been coming in fine. We think your announcer very distinct and clear. Like your paper very much. E. E. Dettmerman, Bloomville, Ohio.

We listened to your program and market reports last evening from WGHP and enjoyed it very much as it comes at a time when most farmers have their day's work done and have time to listen. Success to you.—F. P. Howell, Livingston County.

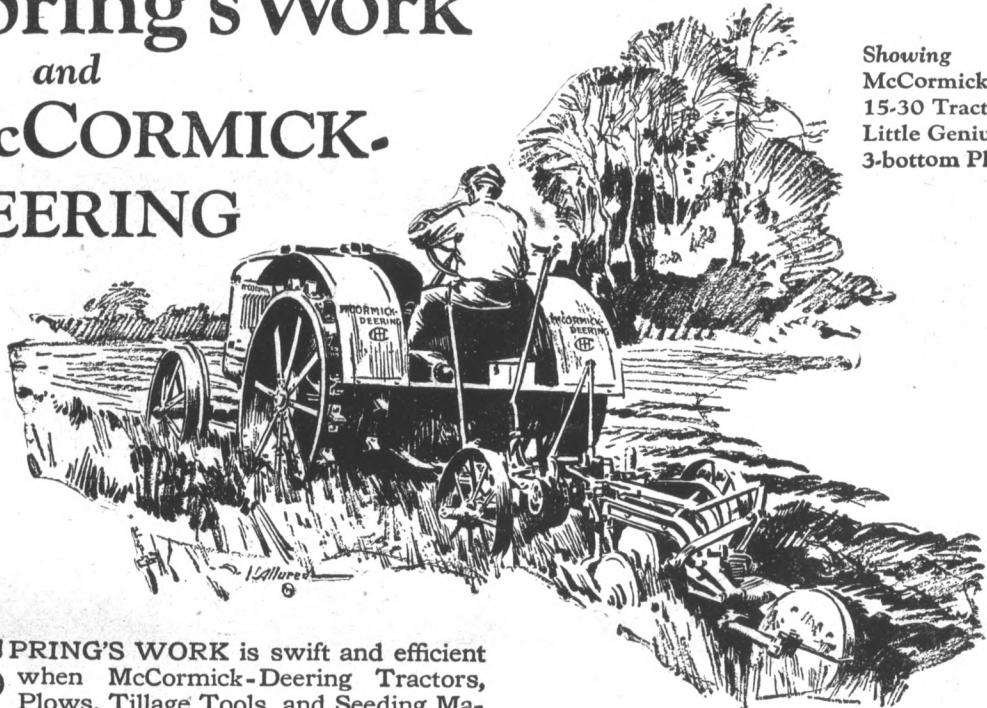
We enjoy your program very much.—F. X. Murphy, Genesee County.

Your radio farm programs are most highly appreciated.—James Bourke, St. Clair County.

I listen every night to your market reports from WGHP. Keep it up.—Earl L. Hart, Shiawassee County.

Your paper is certainly every word for the farmer. Our family never could get along without it. I enjoy the weather reports and, of course, the page for "Women".—Mrs. Geo. R. Forman, Barry County.

# Spring's Work and McCORMICK-DEERING



Showing  
McCormick-Deering  
15-30 Tractor and  
Little Genius  
3-bottom Plow

**S**PRING'S WORK is swift and efficient when McCormick-Deering Tractors, Plows, Tillage Tools, and Seeding Machines are taken out on the fields. The ample power of these tractors and the quality and broad scope of the attached implements assure full use of valuable Spring time and the maximum saving of expensive labor charges. The burdens of production costs are kept down, giving you that early advantage toward profit, and the quality of the work adds appreciably to crop yield.

Then, when the seed is in the soil, the extreme versatility of the McCormick-Deering Tractor carries on throughout the year.

These tractors, besides being always ready for field and belt work, have the power take-off feature for running the mechanism of binders, corn pickers, and other field machines. They are equipped with throttle governor, adjustable drawbar, wide belt pul-

ley, platform, fenders, removable lugs, brake, etc. They have removable cylinders, unit main frame, and ball and roller bearings at 28 points. They come to you complete—no extras to buy. They have plenty of power and long life. Made in two sizes, 10-20 and 15-30 h. p.

Now, with the full producing season ahead, see this popular tractor at the McCormick-Deering dealer's. Sit in the seat at the wheel to get the effect of running it yourself. The dealer will demonstrate the tractor at the store or at your home. We will be glad to send you a catalog.

INTERNATIONAL HARVESTER COMPANY  
606 S. Michigan Ave. of America Chicago, Ill.  
(Incorporated)

## Plows

McCormick-Deering P & O and Chattanooga—all types walking plows and middle-breakers, steel and chilled. Two, three, and four-furrow moldboard and disk tractor plows. Sulky and gang, moldboard and disk riding plows. Orchard and vineyard plows. Special plows for every purpose. All standard types and sizes.

## Tillage Implements

McCormick-Deering Disk Harrows in seven sizes, with or without tandem. Special orchard disk and reversible types. Tractor disk harrows. Spring-tooth harrows, eight sizes. Peg-tooth harrows, 25, 30, or 35 teeth to section. Wood-bar harrows. One-horse cultivators with 5, 7 and 9 shovels; also 7, 9, and 14 teeth.

## Grain Drills

McCormick-Deering drills furnished in sizes 5 to 24 furrow openers; 4, 6, 7, and 8-inch spacing; all types of furrow openers. Press drills and press wheel attachments. Also fertilizer drills, beet drills, alfalfa drills, one-horse drills, end-gate and broad-cast seeders. McCormick-Deering lime sowers.



# The Michigan BUSINESS FARMER

SATURDAY, MARCH 27, 1926

Edited and Published by  
**THE RURAL PUBLISHING COMPANY, Inc.**  
GEORGE M. SLOCUM, President  
Mt. Clemens, Michigan

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ONE YEAR 60c. TWO YEARS \$1. FIVE YEARS \$2.

The date following your name on the address label shows when your subscription expires. In renewing kindly send this label to avoid mistakes. Remit by check, draft, money-order or registered letter; stamps and currency are at your risk. We acknowledge by first-class mail every dollar received.

Advertising Rates: 45c per agate line. 14 lines to the column inch, 772 lines to the page. Flat rates. Live Stock and Auction Sale Advertising: We offer special low rates to reputable breeders of live stock and poultry; write us.

## RELIABLE ADVERTISERS

We will not knowingly accept the advertising of any person or firm who we do not believe to be thoroughly honest and reliable. Should any reader have any cause for complaint against any advertiser in these columns, the publisher would appreciate an immediate letter bringing all facts to light. In every case when writing say: "I saw your advertisement in The Michigan Business Farmer." It will guarantee honest dealing.

"The Farm Paper of Service"

## READ IT BEFORE YOU SIGN

ON a wager that few people read what they are asked to sign a high school student out in the state of Washington circulated a petition among his fellow students. The petition asked for a holiday and was signed by 45 students, none of whom noted that the petition also stated that the signers were willing to have their right arm cut off at the elbow if the holiday were granted.

There are thousands of people in the United States every year who use no better judgment than these high school students. Of course the idea of forfeiting an arm for a holiday is a joke but many forfeit thousands of dollars for little of nothing because they fail to read or fail to understand what they do read in some paper they affix their name to. Fortunes have been lost and lives have been ruined because of such carelessness. Do not sign any paper until you are familiar with the content of the paper and agree with what is written on it.

## FIGHT CORN BORER WITH FIRE

FIRE is the most deadly enemy of the European corn borer which is causing such severe losses to the corn growers of Michigan. The fact that all cornstalks, corncocks, corn stubble and other crop remnants should be burned before May 1st of each year is kept foremost in any discussion of control methods. It is during the warm days of early spring that the pest becomes active, and before it has had the time to spread is the time to eradicate it as much as possible. As the Legislature recently passed an act making it necessary for farmers to get a permit to start any fire except for domestic purposes indications were that control measures were going to be hampered, but the State Department of Agriculture got busy and John Baird, director of the Department of Conservation, has now issued the following proclamation:

"In view of the fact that the European corn borer is threatening to destroy the corn crop of Michigan, one of the important farm crops of this State, and in view of the fact that the United States Government in cooperation with the State Department of Agriculture has outlined the quarantined area as comprising the counties of Huron, Sanilac, Tuscola, Genesee, Lapeer, St. Clair, Macomb, Oakland, Livingston, Washtenaw, Wayne, Monroe, Lenawee, the southeast township in Jackson County, the east half of Saginaw County, and the southern part of Bay County, and in view of the fact that the State Department of Agriculture in cooperation with the United States Department of Agriculture has issued rules and regulations providing for the burning of the refuse, including the corn stubble, as a means of destroying the European corn borer, I deem it advisable for the general good of agriculture that these rules and regulations be carried out and that the provisions of Act 143 of the Public Acts of 1923, as amended by Act 341 of the Public Acts of 1925, be construed so as to allow the burning of stubble and refuse in farm fields without a written permit where due precaution is taken to prevent the spread of the fire, in view of the fact that this is an emergency which has arisen since the passage of this Act and may not last indefinitely.

"The above will be the position taken by the State Conservation Department until you are advised to the contrary."

Many fail to realize how serious this pest is fast becoming until it has invaded their territory

and they are included in the quarantined area. Then when they see complete fields of many acres a total or almost a total loss they appreciate that if a hard fight is not put up corn growing will soon cease to be an important branch of farming in Michigan.

Stop and review a little of the history of the corn borer in Michigan. Previous to January of last year Monroe and Wayne counties constituted the invaded area. Today twelve complete counties and several townships in three other counties are under quarantine. Most of this area is along the shores of Lake Erie, St. Clair River, Lake St. Clair, and Lake Huron up to and including the Saginaw Bay, but it is rapidly working westward.

We must fight, and fight hard, and NOW! What you do between now and May first may determine whether you will have a good corn crop this year or not. Every borer you let live this spring will multiply a thousand times before the year is over. Burn the refuse before May first.

## ADDRESSING MAIL

"HASTE makes waste." This is particularly true when you write a letter but in your rush to get it off in the mail you fail to put the complete address of either the writer or the one supposed to receive it on the envelop. Just today we received a letter "Dr. George H. Conn, veterinary, Mt. Clemens, Mich.," and the name or address of the sender could not be found on the outside of the envelop. It happens that we received it because the post office officials here know of Dr. Conn's affiliations with us but if they had not known of this the letter would have gone to the dead letter office as Dr. Conn does not reside at this address. Then our subscriber would have condemned us and our service for not replying to his inquiry.

Another letter we received not long ago was addressed "Bi-Weekly, Mt. Clemens, Mich." Luck favored us again, as we happen to be the only bi-weekly magazine or paper published in this city, so the letter was delivered. Again the sender did not put his name on the outside of the envelop. Here is another man who, no doubt, would have felt that we were not giving him proper treatment or living up to our reputation as "The Farm Paper of Service."

Can we or any other company or individual be blamed for not acknowledging a communication we never received. Certainly not. So before mailing a letter be sure to see that it is properly addressed and your own name and address written on the upper left hand corner so it can be returned to you in case it can not be delivered to the person or persons to whom it is addressed.

An Irishman by the name of Murphy wrote a letter to one of his friends and the concluding paragraph read "If you do not receive this letter let me know as I will be expecting a reply." Murphy was expecting the impossible, but so is anyone who fails to address their letters properly. And do not forget the return address or the necessary postage.

## The Business Farmer Editorial Ballot

Below we are listing several features or departments in The Business Farmer with a square opposite in which we will appreciate your indicating by number the ones you read regularly in the paper in the order of their importance. That is, if you like the serial story best, write the figure 1 in the square opposite that feature, the next choice should have the figure 2 in the square in The Business Farmer with a square opposite in which are desired may be written in the blank spaces.

This ballot will be published for several issues so that each member of the family may vote his or her preference. When the children vote their preference they should give their age, also. Be sure to sign your correct name and address and mail to the Editor of The Business Farmer, Mt. Clemens, Mich. Thank you.

- |   |  |
|---|--|
| <input type="checkbox"/> Feature Articles   | <input type="checkbox"/> Publisher's Desk    |
| <input type="checkbox"/> Picture Page       | <input type="checkbox"/> The Farm Home       |
| <input type="checkbox"/> Broadscope Farm    | <input type="checkbox"/> Children's Hour     |
| <input type="checkbox"/> Service Bureau     | <input type="checkbox"/> Dairy and Livestock |
| <input type="checkbox"/> Soils and Crops    | <input type="checkbox"/> Veterinary Dept.    |
| <input type="checkbox"/> Sermon             | <input type="checkbox"/> Poultry Department  |
| <input type="checkbox"/> Radio Department   | <input type="checkbox"/> Farm Mechanics      |
| <input type="checkbox"/> Serial Story       | <input type="checkbox"/> Fruit and Orchard   |
| <input type="checkbox"/> Handy Hiram        | <input type="checkbox"/> Harry Vetch         |
| <input type="checkbox"/> Where Readers Live | <input type="checkbox"/> Markets             |
| <input type="checkbox"/> What Neighbors Say | <input type="checkbox"/> Weather Forecasts   |
| <input type="checkbox"/> Editorials         | <input type="checkbox"/> Agricultural News   |

Remarks: .....

.....

.....

Name ..... Age.....

Address .....

## CLUB WORK

EVERY farm boy and girl in Michigan should be encouraged to take up club work. There are two main reasons: it will keep them interested in the farm so they will want to stay there when they grow up, and they become interested in better farming methods.

Some say, "Oh, I'll let my children choose which they want, farm or city job. Anyway there isn't any money in farming now." We agree with the idea of letting children choose their own vocation but club work keeps their young minds busy and helps determine whether they want to farm or not. There are many young people in the city today who would go back to the old farm in a minute if they were encouraged, but they hear so many pessimistic stories about it that they are afraid. Yet in the city they exist, not live, working hard, counting the pennies just as folks do on the farm, and there is the constant fear that they may be thrown out of work at a moment's notice and then have to look days, possibly weeks or months, to find another job.

It is true that few people accumulate much wealth on the farm, but you do not hear of any farmer starving. In the city the percentage of well-to-do people is really small compared to the total population, and there are many who have not enough to eat or wear.

Members of Boys' and Girls Club Work become interested in better seeds, better livestock, and better farming methods in general. Then if they choose farming when they start out in the world for themselves they tackle it as a business and not just an occupation. They know how to make money from their farming operations because of their training.

Get your boys and girls interested in better farming methods through the Boys' and Girls' Club Work, so if they do remain on the farm they will have proper training to make a success.

## HORSE RACES AT THE STATE FAIR

IT is most interesting to note that horse races are to be about the most important part of the entertainment program of the 1926 State Fair. Nothing will regain the farmers' interest in this annual exposition more than this, and it will put it back in the class of agricultural fairs where it once ranked so high. Certainly the officials seem to be working hard to rebuild the fair along the right lines, and with the support of the Michigan State College, the State Department of Agriculture, Farm Bureau, Grange, and other farmers' organizations, it should be a great success.

## AN OLD QUESTION

STATEMENTS made recently by one who is evidently not well acquainted with agriculture have revived the ancient question of the size of farms. There isn't any rule that will fit all kinds of farming and all regions, and little good can come out of a general debate on the subject. Thus far corporation farming in this country may be classes among the failures. It cannot compete, using hired labor, with the incidental labor of the smaller or family unit farm. In some regions the natural tendency of farms is to become larger because the labor capacity of a man is greater than it used to be. In other regions farms will become smaller because of capital and labor necessary for it. California is an example of the latter, with its increase of 19,000 farms and decrease of 47 acres in average size during the past five years. Almost any region devoted to livestock is an example of the tendency toward large farms. Economical conditions, not the theories of dreamers, will ultimately fix the size of farms for any region.

## THEY EAT WHITE BREAD

IN telling why Russian wheat exports have fallen below earlier estimates the Soviet government says: "Another important factor, hitherto somewhat underestimated, is the increased consumption of the peasant himself. His standard of living has advanced greatly. With a good harvest he is eating much more of his own wheat. The demand for white bread in the cities has also increased greatly." Who can measure the effect of this human desire on the consumption of the future? It will not suffice to figure consumptions by old standards, either in bread or other things.

## INSTALLMENT BUYING

STATISTICIANS figure that eight articles are sold on the installment plan to the amount of over \$3,000,000,000 a year. Most of this installment buying is in cities but not all of it. We mention it here merely for the sake of saying that most farmers will do better to go to their bank, for money with which to pay cash than to buy on the installment plan. It is usually better to pay for credit directly than to pay somebody else for paying for it. Somebody must pay for the necessary credit in all such dealing.



## PUBLISHERS' DESK

(We are always glad to do all we can to protect our subscribers from fraudulent deals or unfair treatment from concerns at a distance. We advise on stocks and bonds, and investigate different concerns for our subscribers. This service, including a personal letter, is free when subscription is paid in advance.)

BAD CHECK PASSER PUT  
BEHIND BARS

**H. E. HELM**, the man wanted for swindling several dairymen in Michigan and nearby states, has met his Waterloo, and it was at Waterloo, Iowa, that he met it. Many of you will recall the several notices published in our columns about him, how he represented himself in this state as a cattle buyer from Tennessee, and just before the banks closed he made it a point to get a check cashed to pay for some cattle, getting a prominent farmer to indorse the check as a means of "identification." In the neighborhood of fourteen hundred dollars worth of these checks were returned to Michigan marked "no funds in bank" and the indorsee had to make good the amount to the banks.

He is now serving a seven-year sentence at hard-labor in the Iowa state prison for defrauding an Iowa farmer. When his term there is completed he will find a warrant from Michigan waiting for him.

## CHARGED WITH FRAUD

**INFORMATION** comes to us that four men connected with the National Distributors Association of Chicago have been charged with using the mails to defraud by the U. S. Post Office department. The plan of the company was to advertise through newspapers for men to act as local distributors to pass out circulars and samples. The workers were supposed to make big wages and the association charged them \$5.00 cash for a membership and was to furnish them with work, which they failed to do.

## "PROFESSOR" GNATZ MOVES ON

**ONE** "Professor" Gnatz, fox lecturer, character analyst, and promoter of United Breeders, Ins., recently left Detroit after the Detroit Better Business Bureau had checked up a series of blind want advertisements which he had inserted in the classified columns of that city's newspapers. His past record was disclosed just in time to save several score of citizens from possible losses of money and time.

Gnatz previously enlisted a large number of agents in Milwaukee to help him sell some \$40,000 worth of foxes, and disappeared. His Detroit activities began with similar advertising. His methods, which included harp solos and the distribution of "Mystic Oracles," entertained and inveigled Detroiters to embark on his scheme since last summer.

## BUYING CONTRACTS.

"All contracts at savings of 5 per cent to 15 per cent. Contracts bought outright—lower than you can get elsewhere. Bring abstracts and contracts with you. Open evenings."

**THIS** is a sample of an advertisement that has been appearing in Detroit newspapers according to the Detroit Better Business Bureau and after a thorough investigation they condemn the companies and their scheme.

You call at the offices of the company, show them your abstract and contract, and after a conference, finally agree upon a price. Then the "finance" agent asks you to assign

your contract to them and the deal will be closed, and adds "We've bought so many contracts lately, we are a trifle short on cash, so we'll just give you our check for \$50 and our note for the balance due in 20 days."

Nine chances out of ten you are not aware of the fact that should the company part with the title to an innocent purchaser before payment of the note, and then default in paying it, which is part of their plan—you would lose everything. Never surrender the title to property until you are paid in full.

## NILE ART OFFICIAL TO JAIL

**THE** final chapter of the Nile Art Company, of Fort Wayne, Indiana, has been written. A few days ago the United States Court of Appeals at Chicago sustained the decision of the federal court at Indianapolis, Indiana, that Glenn D. Fryer, the proprietor, was guilty of using the mails to defraud and must spend ten years in prison and pay a fine of \$8,000.

Many will remember that this company had a work-at-home scheme which we condemned many times through our columns. This man sold materials for decorating pillow tops and lamp shade, promising to buy the work when completed but when it was submitted he refused it as unsatisfactory. Most of his victims were shut-ins who were looking for some way to earn a living.

SHEFFIELD LABORATORIES OUT  
OF BUSINESS

Sometime ago I entered an educational contest conducted by the Sheffield Laboratories, of Aurora, Illinois. We were to answer 31 geographical questions in order to qualify as a working contestant for the first grand prize of \$2,000. Each contestant was to buy \$5.00 worth of Sheffield's toilet articles, and send the money to the company. I answered the questions and sent the company \$5 for the toilet articles, but I have never heard from them although the contest closed months ago. I would like my money back or the toilet articles.—F. H., Ing-

**WE** wish we were able to help this subscriber but our letter was returned to us with the information that the company is out of business. One should never send money to a company that they know nothing about without some security. The promoters of this company no doubt succeeded in getting hundreds to send them \$5 for toilet articles that the company never had or intended to have, then when complaints started to come in they went out of business and departed from that city. Goodbye \$5.

## BOUGHT ANY "TERRA VIM?"

**THERE** has come to our attention notice that some eastern concerns are selling a product known as "Terra Vim," supposed to be a material for inoculating non-leguminous plants just as specific bacteria inoculate legumes. Of course, this is misleading, as non-leguminous plants are not subject to inoculation. If you are offered any of this product you will be doing a real service if you report it to the Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C., so they can check up on the company.

I have been trying to get around to write you for some time, to tell you that your letter to — worked like a charm. I at once received the box of cards. I think you must have a powerful magic to succeed as you do. I thank you indeed. I did not want any thing to which I was not entitled. Perhaps they will word their advertisement now so they will be more readily understood. But I thank you again for your help. You certainly maintain a splendid department of service to your readers.—M. M. T., Ovid, Michigan.

I wish to thank all the editors for making up such a good paper for us farm folks. I like it very much.—Bessie Keel, Manistee County.

## First Mortgage Real Estate Bonds

The character of the bonds we recommend and the quality of the property securing them offer you the safest and most stable type of investment, together with a desirable profit.

6%

Normal Federal Income Tax Up to 2%  
Paid by Borrower

Federal Bond &  
Mortgage Company

(1652)

Federal Bond &amp; Mortgage Building in Detroit, Michigan

*The man who thought  
a buggy was good  
enough*

In the old days, a solid, conservative citizen might sniff and tell you he didn't read advertising.

He didn't think so much of the horseless carriage, either. The telephone was newfangled, and an insult to the United States mails.

As for radio, aeroplanes, wireless photography—if they had been born then, he probably would have thought them a bit immoral.

But he's changed. He's been educated. His point of view has been made broader and more modern. He has been civilized—by the automobile, the telephone, radio, advertising.

Every single one has opened up new paths for him, taught him new things. Advertising, especially. Advertising tells him the newest things to wear, the best things to eat. Advertising tells his wife how to make a home up to date and attractive. Advertising tells him the prices to pay for things he buys, saves him from the old-fashioned ways of doing business—helps him live well, keeps him modern.

Advertising can help you. The advertisements in this magazine are here to tell you many things that make life more comfortable, more interesting, happier. Read them faithfully. They'll keep you abreast of the times. They'll prevent you from becoming the type of old foggy who—sniff!—does not read advertising.

Advertising is the key to modernity

## The Collection Box

The purpose of this department is to protect our subscribers from fraudulent dealings or unfair treatment by persons or concerns at a distance.

In every case we will do our best to make a satisfactory settlement or force action, for which no charge for our services will ever be made, providing:

- 1.—The claim is made by a paid-up subscriber to The Business Farmer.
- 2.—The claim is not more than 6 mos. old.
- 3.—The claim is not local or between people within easy distance of one another. These should be settled at first hand and not attempted by mail.

Address all letters, giving full particulars, amounts, dates, etc., enclosing also your address label from the front cover of any issue to prove that you are a paid-up subscriber.

THE BUSINESS FARMER, Collection Box  
Mt. Clemens, Mich.

Report ending April 3, 1926  
Total number of claims filed..... 2795  
Amount involved..... \$28,746.26  
Total number of claims settled..... 2318  
Amount secured..... \$26,549.62



Always  
look for  
the  
Red  
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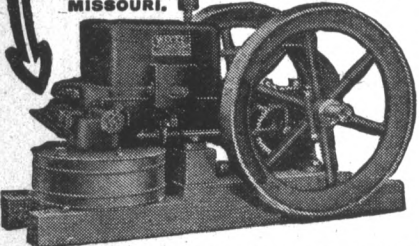
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## The Indian Drum

By William MacHarg and Edwin Balmer

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(Continued from March 27th issue.)

"SO long as one lived among those on the Miwaka who had seen what was done, I knew I would be hanged; yet I would have saved them if I could. But, in my comprehension of what this meant, I only stared at Stafford where he lay and then at Spearman, and I let him get control of the tug. The tug, whose wheel I had lashed, heading her into the waves, had been moving slowly. Spearman pushed me aside and went to the wheelhouse; he sent Luke to the engine, and from that moment Luke was his. He turned the tug about to where we still saw the lights of the Miwaka. The steamer had struck upon the reef; she hung there for a time; and Spearman—he had the wheel and Luke, at his orders, was at the engine—held the tug off and we beat slowly two and fro until the Miwaka slipped off and sank. Some had gone down with her, no doubt; but two of the boats got off, carrying lights. They saw the tug approaching and cried out and stretched their hands to us; but Spearman stopped the tug. They rowed towards us then, but when they dug up near, Spearman moved the tug from them, and then again stopped. They

to confess it all and make such restitution as he could. But each time that the day he had appointed with himself arrived, he put it off and off and paid Luke again and again. Spearman knew of his intention and sometimes kept him from it. But Corvet had made one close friend; and when that friend's daughter, for whom Corvet cared now most of all in the world, had been about to marry Spearman, Corvet defied the cost to himself, and he gained strength to oppose Spearman. So he had written to Stafford's son to come; he had prepared for confession and restitution; but, after he had done this and while he waited, something had seemed to break in his brain; too long preyed upon by terrible memories, and the ghosts of those who had gone, and by the echo of their voices crying to him from the water, Corvet had wandered away; he had come back, under the name of one of those whom he had wronged, to the lake life from which he had sprung. Only now and then, for a few hours, he had intervals when he remembered all; in one of these he had dug up the watch and the ring and other things which he had taken from Captain

### OUR NEW STORY STARTS IN THE NEXT ISSUE

THE concluding installment of our story "The Indian Drum" appears in this issue and in our April 24th issue we will start our new story "Pioneering in Michigan." Being a true story of the trials and tribulations of early settlers in this state it is of unusual interest. It is not a highly colored story by a professional writer who read some historical books and interviewed a few old settlers, but the actual experiences of the author who came to Michigan in 1869, when traveling was done on foot, horseback or by "Prairie Schooner." The author is—well, we will give you his name in the next issue along with the first installment of the story, but we will say that he now lives in Osceola county, along with his good wife and daughter. But watch for the story because it will only run a few issues, being quite short, and you do not want to miss one installment.

cried out again and rowed toward us; again he moved the tug away, and then they understood and stopped rowing and cried curses at us. One boat soon drifted far away; we knew of its capsizing by the extinguishing of its light. The other capsized near to where we were. Those in it had no lifebelts and could not swim, sank first. Some could swim and, for a while, they fought the waves."

Alan, as he listened, ceased consciously to separate the priest's voice from the sensations running through him. His father was Stafford, dying at Corvet's feet while Corvet watched the death of the crew of the Miwaka; Alan himself, a child, was floating with a lifebelt among those struggling in the water whom Spearman and Corvet were watching die. Memory; was it that which now had come to him? No; rather it was a realization of all the truths which the priest's words were bringing together and arranging rightly for him.

He, a child, saved by Corvet from the water because he could not bear witness, seemed to be on that tug, sea-swept and old in ice, crouching beside the form of his father while Corvet stood aghast—Corvet, still hearing the long blasts of distress from the steamer which was gone, still hearing the screams of the men who were drowned. Then, when all were gone who could tell, Spearman turned the tug to Manitowoc. . . . Now again the priest's voice became audible to Alan.

Alan's father died in the morning. All day they stayed out in the storm, avoiding vessels. They dared not throw Stafford's body overboard or that of the engineer, because, if found, the bullet holes would have aroused inquiry. When night came again, they had taken the two ashore at some wild spot and buried them; to make identification harder, they had taken the things that they had with them and buried them somewhere else. The child—Alan—Corvet had smuggled ashore and sent away; he had told Spearman later that the child had died.

"Peace—rest!" Father Perron said in a deep voice. "Peace to the dead!"

But for the living there had been no peace. Spearman had forced Corvet to make him his partner; Corvet had tried to take up his life again, but had not been able. His wife, aware that something was wrong with him, had learned enough so that she had left him. Luke had come and come and come again for blackmail, and Corvet had paid him. Corvet grew rich; those connected with him prospered; but with Corvet lived always the ghosts of those he had watched die with the Miwaka—of those who would have prospered with Stafford except for what had been done. Corvet had secretly sought and followed the fate of the kin of those people who had been murdered to benefit him; he found some of their families destroyed; he found almost all poor and struggling. And though Corvet paid Luke to keep the crime from disclosure, yet Corvet swore to himself

Stafford's pockets and written to himself directions of what to do with them, when his mind again failed.

And for Spearman, strong against all that assailed Corvet, there had been always the terror of the Indian Drum—the Drum which had beat short for the Miwaka, the Drum which had known that one was saved! That story came from some hint which Luke had spread, Corvet thought; but Spearman, born near by the Drum, believed that the Drum had known and that the Drum had tried to tell; all through the years Spearman had dreaded the Drum which had tried to betray him.

So it was by the Drum that, in the end, Spearman was broken.

The priest's voice had stopped, as Alan slowly realized; he heard Sherrill's voice speaking to him.

"It was a trust that he left you, Alan; I thought it must be that—a trust for those who suffered by the loss of your father's ship. I don't know yet how it can be fulfilled; and we must think of that."

"That's how I understand it," Alan said.

Fuller consciousness of what Father

Perron's story meant to him was flowing through him now. Wrong, great wrong there had been, as he had known there must be; but it had not been as he had feared, for he and his had been among the wronged ones. The name—the new that had come to him—he knew what that must be: Robert Alan Stafford; and there was no shadow on it. He was the son of an honest man and a good woman; he was clean and free; free to think as he was thinking now of the girl beside him; and to hope that she was thinking of him.

Through the tumult in his soul he became aware of physical feelings again, and of Sherrill's hand put upon his shoulder in a cordial, friendly grasp. Then another hand, small and firm, touched his, and he felt its warm tightening grasp upon his fingers; he looked up, and his eyes filled and hers, he saw, were brimming too.

They walked together, later in the day, up the hill to the small, white house which had been Caleb Stafford's. Alan had seen the house before but, not knowing then whether the man who had owned it had or had not been his father, he had merely looked at it from the outside. There had been a small garden filled with flowers before it then; now yard and roofs were buried deep in snow. The woman who came to the door was willing to show them through the house; it had only five rooms. One of those upon the second floor was so much larger and pleasanter than the rest that they became quite sure that it was the one in which Alan had been born, and where his young mother soon afterward had died.

They were very quiet as they stood looking about.

"I wish we could have known her," Constance said.

The woman, who had showed them about, had gone to another room and left them alone.

"There seems to have been no picture of her and nothing of hers left here that anyone can tell me about; but," Alan choked, "it's good to be able to think of her as I can now."

"I know," Constance said. "When you were away, I used to think of you as finding out about her and—and I wanted to be with you. I'm glad I'm here with you now, though you won't need me any more!"

"Not need you!"

"I mean—no one can say anything against her now!"

Alan drew nearer her, trembling.

"I can never thank you—I can never tell you what you did for me, believing in—her and in me, no matter how things looked. And then, coming up here as you did—for me!"

"Yes, it was for you, Alan!"

Constance! He caught her. She let him hold her; then, still clinging to him, she put him a little away.

"The night before you came to the Point last summer, Alan, he—he had just come and asked me again, I'd promised; but we motored that evening to his place and—there were sunflowers there, and I knew that night I couldn't love him."

"Because of the sunflowers?"

"Sunflower houses, Alan, they made me think of; do you remember?"

"Remember!"

The woman was returning to them now and, perhaps, it was as well; for not yet, he knew, could he ask her all that he wished; what had happened was too recent yet for that. But to him, Spearman—half mad and fleeing from the haunts of men—was beginning to be like one who had never been; and he knew she shared the feeling. The light in her deep eyes was telling him already what her answer to him would be; and life stretched forth before him full of love and happiness and hope.

THE END.

### MEET DEAN WARD GILTNER, OF M. S. C., FOLKS



WE want to introduce to you, our readers, the men at your agricultural college who are working to help you solve your farm problems, your "hired-men" who are working out problems for the advancement of agriculture, not only in Michigan, but in the whole world. The first one we are presenting to you is Dean Ward Giltner, head of the Department of Bacteriology and Hygiene and dean of the Division of Veterinary Medicine.

Dean Giltner was born April 5, 1882, on a farm near Ithaca, New York. He divided his time between schooling and farming until 1903, one year after his marriage, when he entered the veterinary college at Cornell University. Upon graduation he was offered a position in the Alabama Polytechnical Institute at the huge salary of \$1,000 per year. He came to Michigan in 1908 with a Master's Degree from A. P. I. and has remained at the M. S. C. ever since. At first he was research assistant in the Experiment Station, being promoted later to his present position. Dean Giltner is an honorary member of several societies, he has associated himself with many scientific associations, also he has been very active in the affairs of the local, state and federal veterinary associations, and he has a published book to his credit, but we can't see that these things have handicapped him in any way. In fact, he has remained a most likeable fellow in spite of it all.



# The Experience Pool

## GARDENING

DEAR EDITOR: I suppose your readers will be interested in my way of gardening. My garden has raised vegetables for a family of from four to nine and sometimes more and sometimes less, for fifty-nine years and is still clear of weeds and always furnishes plenty of different kinds of vegetables that we like.

As soon as the ground will do to plow in the spring I have the garden plowed. (Twice it has been planted the first week in April.) I plant onion seed and onion sets first, then lettuce and radishes and beet seed, and if it is as late as the second week in April, I plant carrot, parsnip, salsify and two rows of medium early peas. I plant these just far enough apart so I can cultivate between the rows with a one-wheeled cultivator. I have all of the rows running north and south, the peas being a little further apart. All of these seeds I expect to stand a freeze if the weather turns colder, as it sure will. Last year I put sulphur in the rows before I sowed the seeds. The sulphur was of some benefit on the onions, kept the maggots in check some I thought, but it was a nuisance on the beets, made black places in them, but it was a benefit to the cabbage, kept the insects from eating the roots off.

When this much is done I wait until the weather warms up a little, then I cultivate the rest of the ground and plant two rows of string beans and three rows of early corn and I have had early cabbage plants out soon after the first seeds were sown. I have cabbage, tomatoes, pepper and egg-plant growing in the house. Now, the tenth of March, I have a pit in the garden and will put them out there as soon as the weather is warm enough. In the meantime, I will set them in four-inch pots. I have some big windows in the house to set them in till time to put them in the pit.

Sometimes there are little tomatoes on the tomato plants when they are set in the garden. They are a foot or more tall by that time and the ground in the pot is filled with roots. I dig a hole in the ground as deep as it was plowed and set the plant in and dig a little side ditch and lean the plant over it and cover with earth to about the third leaf from the top. Roots will form the whole length of the plant and help to keep the plant in good shape through a dry spell of weather. I set these pit plants out about the middle of May. I have had very good success planting my late cabbage in the hill. I plant two or three seeds in each hill and take up the extras and set where the cut worms have cut them off.

I am not bothered much with cut worms. I let the small chickens run in the garden all I can and they pick up lots of insects.

I plant more corn and peas and cucumbers and about four hills of pumpkins and more string beans. Of course, the corn and cucumbers and late cabbage must be farther apart. I cultivate after every rain as soon as the ground is fit to work.

A year ago last fall my pumpkin vines had a lot of those bad smelling bugs on them so I put some kerosene in a tin can and knocked the bugs into it and last fall I did not see one bug. I plant my squash seeds in the potato patch. The insects do not bother them there. I have a lot of manure brought from the barns and spread on the garden in the fall. As soon as I have got all the rubbish gathered and burned (about every third year) I fit the garden ready for plowing before the ground freezes every fall. I think I burn a lot of insects. In one corner of the garden next to the fence I have a row of rhubarb and on another side I have a bed of asparagus by the fence, so they don't interfere with the plow. I do most all of the work with the cultivator. It is easier and quicker done. I generally hoe the corn once and the late cabbage once. Last spring I bought one thousand onion plants. I think I will buy two thousand this year.—J. DeCou, Genesee County.

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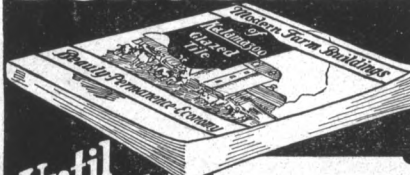
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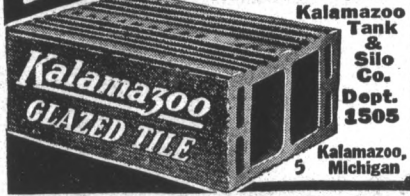
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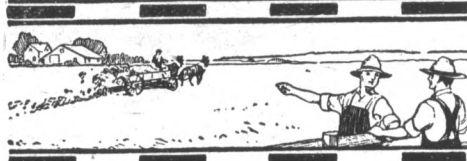
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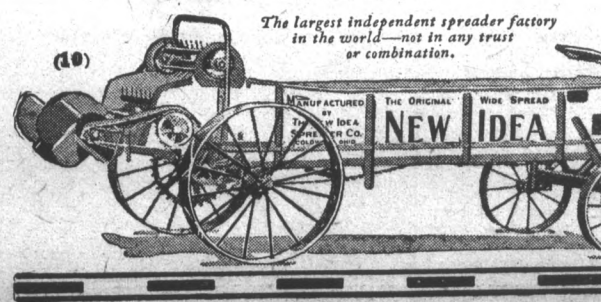
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DEAR girls and boys: I was rather pleased to find that the majority of the children entered in our Lincoln and Washington contest favored that famous old rail-splitter, "Honest Abe." Since a boy I have always thought Abraham Lincoln the greatest man this country has ever known. Not that Washington was anything but a great man or was unworthy to be called "Father of his country." No indeed. But Lincoln came from the simple life, with poor parents, and was obliged to work hard and educate himself. I think children from the country are more inclined to favor Lincoln because one associates him with farming, more than George Washington, while city children may look upon the latter as the greatest.

The judges decided Norma Rice, Hartford R. 1, Box 85, sent in the most convincing argument in favor of her choice, Lincoln, and awarded her first prize which consisted of a fountain pen. A champion of Washington, Hattie Laughbaum, of Pellston, was a close second, and carried off the box of paints offered.

Well, as I promised you, we are beginning another contest in this issue. It is one of those popular "What's Wrong in This Picture" contests and I hope you will all try to win.—UNCLE NED.

### Our Boys and Girls

Dear Uncle Ned:—As I enjoy the Children's Hour very much I thought I would write again. I have written twice but have never seen my letters in print, so I hope Mr. Waste Paper Basket will be asleep when this letter arrives. I will describe myself as I suppose you have forgotten my description which I wrote before. I have blue eyes, dark brown hair, bobbed and shingled, I am about five feet and two inches tall and weigh eighty-four pounds.

I am in the seventh grade and am eleven years old and to anybody guessing when my birthday is, I will write a very long letter and send them my picture. I live on a three hundred and twenty acre farm and have a mile and a quarter to go to school.

My mother is in Ann Arbor Hospital with lupus and I am staying home, but my grandmother is keeping house for us. I have three brothers and one sister. I will close for this time. From your want-to-be-niece,—Lela Merle Johnson, R3, Marion, Michigan.

—I am very sorry to learn of the illness of your mother and hope that she is getting well rapidly. I know you must be lonesome without her.

Dear Uncle Ned:—I received your button you sent me and I surely was a happy girl. Do you know where it is this very minute? Well, maybe you can't guess so I will tell you; it is right on my dress. I love to have clubs. In our school I have been the president of the health club in 1925 and 1926 until a few weeks ago. I could not keep order with the boys so I had to give it up.

Say Uncle Ned do you like to draw and color pictures? I do. If you think you would like to see one or two of the pictures I made I will send them. I did not get ready to help the contest for I did not know until last night if I could be a member. Your niece,—Verna Courtney, Portland, Michigan.

—I never could draw pretty pictures but I always did like to look at them. If you will draw some with pen and ink (black ink) maybe we can print some of them. What do you say to that?

Dear Uncle Ned:—I have never written to you before, but I would like to join your merry circle. I live on a farm of 113 acres and have lots of fun. We have a Graham truck, one car, two tractors and two horses. In the spring, Uncle Ned, I will send you a picture of our tractors and team at work in one field. I guess I will describe myself. I am



Motto: DO YOUR BEST  
Colors: BLUE AND GOLD

## What's Wrong in This Picture?



We asked that city artist who has made two or three pictures for us if he could draw one of circus day for our page and he said, "Sure! I attended a circus last summer and I remember all about it." This is the picture he made for us, and, like the others he made, it is full of errors. He must be very forgetful or careless to make so many mistakes. I wonder if you can find all of them. I am going to offer three prizes to see who can find all of the mistakes. First prize will be \$3 in cash, second and third \$1 each, or a total of \$5, and your list of mistakes must reach me by 1:00 P. M., April 24, the closing hour. Each one of the first twenty-five to send in their list will receive one of our new buttons, if they haven't already received one. In writing be sure to advise whether you have or not, and give your complete name and address.

fifteen years old and am not going to school. I am five feet six inches tall, have brown hair and blue eyes. I like to read the M. B. F. very much and like the Children's Hour very much.

I raised some pumpkins, corn and some brown corn and got first prize at the Saginaw County Fair. I raised the pumpkin and it weighed 101 pounds. That was the biggest pumpkin in the show. For the first prize I got \$2.50 prize and sold it for \$2.00 and made \$4.50 but this year I am going to grow a lot of things for the fair. I bet, Uncle Ned, that the cousins did not raise such a pumpkin on their farm. This year I am going to raise five different kinds of pumpkins for the fair, the large kind.

I must close because the letter is so long and I hope Mr. Waste Basket is full. So good-bye. Your nephew,—Julius Seamon, R5, Saginaw, E., Michigan.

—That surely was "some" pumpkin alright. I'll bet you would try to raise a lot of them if you could get \$4.50 for each one, wouldn't you? Hope you have good luck at the fair this year. Do not forget to send me the picture you promise.

My Dear Uncle Ned:—I suppose you would like to hear from me again I sure

do enjoy writing to you. I now write to several boy friends and I do enjoy my paper. We now are making maple syrup and I help to gather the sap and wish all my pals and Ncle Ned would come and help scrape the pan.

Well, Mr. Waste Basket I hope you don't catch me this time. With good luck to you all. Your friend,—Harold McKay, South Haven, Michigan, R5, Box 124.

—You make me hungry when you talk of gathering sap to make sugar. I'm sorry I cannot accept your kind invitation.

Dear Uncle Ned:—I have received your welcome letter and pin and was glad to hear from you. I could not write sooner because I was busy in school so you will have to forgive me for this time. I like to go to school. I have a very good teacher and I think that is why everyone likes to go to school. I am in the eighth grade and am fourteen years of age. We take THE BUSINESS FARMER and like it very much. I enjoy reading the Children's Hour.

I am going to name all the books I read out of your list of books. "Little Women", by Louisa May Alcott; "Robinson Crusoe", by Daniel Defoe; "Anderson's Fairy Tales", "Alice in Wonder-

land", by Louis Carroll; "Held", by Johana Spyri; "Arabian Nights", "Oregon Trail", by Francis Parkman; "Hans Brinker", by Mary Mapes Dodge; "Merry Adventure of Robin Hood", by Howard Pyle; "Boy's King Arthur", by Sir Thomas Mallory; "Water Babies", by Charles Kingsley; "Little Men", by Louisa M. Alcott; "Gulliver's Travels", by Johnathan Swift; "Boy's life of Abraham Lincoln", by Helen Nicoloy; "Huckleberry Finn", by Mark Twain; "The Prince and the Pauper", by Mark Twain; "Grimm's Fairy Tales"; "Joan of Arc", by T. M. Boutent DeMonroel; "Man Without a Country", by Edward Everett Hale; "Dog of Flanders", by Onida. That makes twenty books out of the list of thirty-nine.

Well I must close hoping the waste paper basket is asleep when this letter reaches you. Your niece,—Anna Meholic, Middleville, Michigan.

—I am pleased to know Anna, that you have read so many of the books given in the list and I hope you will plan to read the others.

Dear Uncle Ned:—Have you room for one more? I would like to join your circle. I will describe myself. I have dark brown hair and brown eyes and I am four feet, five inches tall. I am in the fourth grade at school and am ten years old. I have not got very far to go to school. My aunt lives in the next house from ours. I like it on the farm. The name of it is the Valley Fruit Farm. There is eighty-five acres on it. I help pick the fruit in summer and fall. We raise all kinds of flowers.

Well, I must close hoping Mr. Waste Basket will not gobble this letter. Your niece,—Doris Cochran, Route 8, Allegan, Michigan.

Dear Uncle Ned:—I received my pin a week ago and also your letter. I like the pin very much. I think the ones who chose "Do Your Best" have very good ideas. This is the first letter I have written, so I hope Mr. Waste basket has just got dinner down.

Well I guess I will describe myself. I am five feet tall. I am neither fat or thin. I am thirteen years old and in the eighth grade. I have brown hair and blue eyes, and medium complexion.

Well, Uncle Ned, don't you think these days go fast? I certainly do. I live on a forty acre farm. I like the farm very much.

We take THE MICHIGAN BUSINESS FARMER and I certainly like to read it. I wish it was a daily paper. Well, I must leave room for some one else so will say good-bye. From your want-to-be niece,—Henrietta Yonkman, Lucas, Michigan.

—Well, well, so you would like to have M. B. F. come every day. Maybe you wouldn't like it so well if it did.

Dear Uncle Ned:—Having had one letter in print, here I am again. I started to go to high school, but had to quit on account of my mother's illness.

I wish we could have more contests. Every two weeks would be fine. Cousins, let's live up to our club colors. Be loyal to your club and help it to become bigger and better. To do this we must write interesting letters, have discussions, etc. Will close with love. Your niece,—Anna Smella, R. F. D. 1, Standish, Mich.

—That's it, Anna, boost for our club, and write interesting letters whenever you can get the time. Your suggestions are always welcome, same as suggestions from any of the girls and boys.

### RIDDLES

What is the best tree for preserving order?—The birch.

Why is a watch the most difficult thing to steal?—Because it must be taken off its guard.

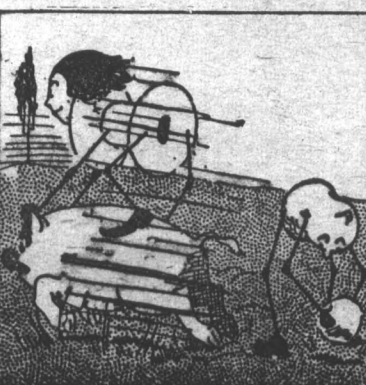
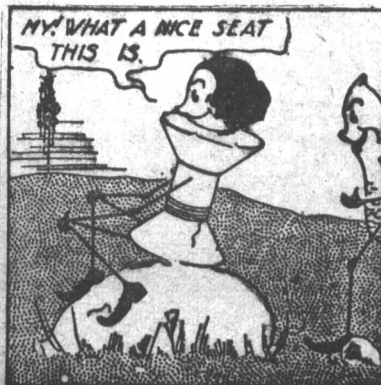
Why is there never anybody at home in a convent?—Because it is an (n) uninhabited place.

Why does a person who is not good-looking make a better carpenter than one who is?—Because he is a deal plainer.

Why is shoemaking the easiest of trades?—Because the boots are always soled before they are made.

How can a gardener become thrifty?—By making the most of his thyme, and by always putting some celery in the bank.

### THE ADVENTURES OF THE PESKY PEANUT





# SOILS AND CROPS

Edited by C. J. WRIGHT, St. Joseph County.

(Questions referred to Mr. Wright are promptly answered by first class mail without charge, if your subscription is paid in advance.)

## COMMERCIAL FERTILIZER

**I**n order to know what it is, and how to use it, one should have some idea of how it is made, and out of what materials. The sources of fertility in fertilizer is obtained from two groups of materials, the first from basic materials from the earth and air and the other from the by-products of the industries. In the first group, or the earth and air, we get our nitrogen from Nitrate of Soda, Illinois Coal, "such as Ford's Ammonium Sulphate," Nitrate of Potash, Nitrate of Lime and Cyanamid, or the Nitrogen taken from the air the Mussel Shoals way.

We get our Phosphorus from Apatite, South Carolina Phosphate, Utah and Wyoming Phosphates.

We get our Potash from German Potash salts, Nitrate of Potash, Sulphate of Potash, Kanit Double Manure Salts, Sylvinit, Nitrate of Potash and Feldspar, and we get our Sulphur from Brimstone, Pyrites, and Sulphur bearing ores.

In the second group or by-products of the industries we get our Nitrogen from Sulphate of Ammonia, Dried Blood, Tankage, Cottonseed Meal, Linseed Meal, Castor Bean Pumice, Bone, Hoof Meal, Horn Meal, Fish Waste, Hair, Wool Waste, Leather Scrap and Garbage.

We get our Potash from Seed Meals, Ground Tobacco Stems and various other By-Products.

As you run over the second group of materials you will find that they comprise a saving of actual plant food that has been in one way or the other raised on the land and has in turn been sold.

This conservation of waste represents a large percentage of the fertilizer business of America, and this material is very readily available for plant use. Nitrogen is the most expensive element in Commercial Fertilizer, it is the element that governs the growth of the plants and its lack is usually shown by the plants pale green or yellow color.

Nitrate of Soda runs about 15% nitrogen and the nitrogen is practically all soluble. Cyanamid carries 20%. This is the nitrogen taken from the air as was being done at Mussel Shoals. It is estimated that there is 35,000 tons hanging over each acre of ground, and we have a means of getting some of this by the growing of legumes that have the bacteria, such as clover, soybeans, cow peas, alfalfa, etc., and this is the cheapest source of nitrogen for us.

Going back to the manufacture of Fertilizer, these materials of the different groups are scientifically mixed, so as to carry a certain amount of the various plant foods, that you will find printed on the bags, and the amount of each material actually available to the plant providing that the moisture conditions are right for the plant to use it.

Acid Phosphate is made by treating ground phosphate rock with 50% sulphuric acid which process liberates the phosphorus and make it available for plant use. Acid Phosphate or any kind of Phosphorus; its function is to mature the grain and it also under certain conditions stimulates the growth of the plant.

Potash supplies the straw and stalk and plays a large part in the proper development of the plant.

The issue of Commercial Fertilizer hinges on the fact that it supplies the plant, food, in addition to the supply that you may have and to a certain extent have got in your soil. If used as it should be, in relation to the plant food you already have it will promote a better growth of any crop, and the fact is apparent that where its function is learned you find that it is being used year after year, and in greater quantities.

Belgium, Holland, Denmark and Germany uses it constantly and their average wheat yield is \$3 bu per A to ours of 13 bu. and there soil has been farmed for nearly a thousand years.

Fertilizer can be profitably used on corn, oats and wheat when the increase of yield will cover the cost of the material. This is the big factor in raising crops and to use Fertilizer on a crop when the aver-

age increase would not warrant its use would be poor policy or the use of to large application on crops that their increase would not cover the cost of the Fertilizer. The cheapest element in Fertilizer is "Acid Phosphate" and throughout Michigan it is the most deficient in the soil.

This is the reason that it is recommended by the M. S. C. and other investigators in crop needs. There is very few soils in Michigan that would not be benefited by its use. Potash is used very much on muck soils and also on sandy soil, but on most clay soils there is usually enough for crop needs if it was available, clay ground contains from 20,000 to 50,000 lbs. to the acre. Sometimes on this type of soil some potash in addition is usually a good thing especially on young clover seedlings.

The Fertilizer question is a problem for every farm and only by trials in actual crop practices can its value be determined.

It is well to remember that the higher the percentage of elements in the analysis the cheaper it will be for the actual plant food contained therein.

A 1-8-1 Fertilizer will cost more to use the same amount of plant food per acre as a high grade such as a 2-16-2. It will take two tons of the former to equal one of the latter and the two tons will cost quite a lot more than the one ton.

This is too big a subject to cover in one short article but I hope that I have cleared up some points in its use.

## PUTTING ON THE LIME

I have a field that I planted to beans last year and in the fall I drilled it with wheat and would have liked to have sown lime on it then but couldn't. Now do you think that if I sow 500 pounds of agricultural lime per acre this spring it will burn the wheat? I have been told it would. I want to seed it with alfalfa using wheat as cover crop.—J. L., Jerome, Mich.

**F**IVE hundred pounds of hydrated lime will not injure your wheat but if your ground is sour five hundred pounds will help but it is not enough to assure you a stand of alfalfa. It takes nearly three-fourths as much agricultural lime or hydrated to be equivalent to fine ground lime stone and in this case it would amount to 750 pounds of this material where you would need from one ton to four according to the sourness for your soil. Lime should be worked in the soil to get the best results.

## FERTILIZER FOR POTATOES

I would like to know what kind of fertilizer you would recommend to be used on potato ground. The soil is sandy, or would it be better to put on lime? Also would like to know about the market for potatoes.—C. H., Pittsford, Mich.

**A**n excellent potato fertilizer is one that analyses approximately three to four per cent nitrogen, ten to twelve per cent phosphoric acid and five per cent potash. This should be used at the rate of approximately 600 pounds to the acre. It should be applied shortly before potato planting. If the soil at planting time is very dry it is not good practice to place the fertilizer in the furrow with the potatoes at a higher rate than about 400 pounds per acre. The remaining fertilizer can be applied broadcast and worked into the soil. Where fertilizer is applied and a fertilizer attachment is attached to the potato planting machine the grower should always see that the fertilizer does not come in contact with the seed pieces since it is very apt to kill the growing sprouts.

Fertilizer should be regarded as a supplement to stable manure which generally should be applied in the fall or winter preceding planting. If possible the potato crop should follow alfalfa or sweet clover in rotation so that the soil will be well filled with organic matter.

Potatoes grow quite well on acid soil. In order, however, to grow (Continued on Page 26)

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## SPRINGTIME ON THE FARM

By Grace Young Howe

What's causing this hurry, and scurry  
and flurry  
And stir by an early alarm?  
As sunrise draws near, merry voices  
you'll hear,  
It is springtime down on the farm.

The roosters are crowing, the cattle are  
lowing,  
They're tired of corn fodder and hay,  
They stand by the gate and can scarcely  
wait  
Till they go to the woods each day.

The boys have been wishing each day  
that they might go fishing,  
The creek seems to call them that way.  
But seed oats must be cleaned, the pigs  
must be weaned,  
There's no time for leisure today.

Mother is humming but the tractor is  
bumming,  
So father is worried and cross,  
He would hitch up the team but hates to  
be seen  
With it and an idle iron hoss.

Bobby thinks it is fun after turkeys to  
run  
And oftimes he looses his hat,  
But he finds new clues and brings back  
the good news,  
A turkey nest down in the flat.

When the supper is o'er then each child  
has his chore  
From little Jim up to big Ray,  
When the chores are all done and the  
night has begun,  
They quietly beat it for the hay.

It is not all toil and care as some are  
aware,  
For farm life has many a charm,  
There is love and content and hours well  
spent.  
When it's springtime down on the farm.

HOW TO TAKE SHINE FROM  
SEAMS AND HEMS

**S**HINY seams often appear on  
woolly garments after they  
have been cleand and pressed.  
Much of this shininess can be avoided  
if the right method of pressing is  
used.

To press wool one should place a  
woolen cloth on the ironing board  
and then lay the right side of the  
wool material on the cloth. Place a  
heavy piece of muslin cloth—the  
heavier the better on top of the wool  
material. A piece of canvas is ex-  
cellent because it can be dampened  
evenly and without wrinkling. It  
may be dry for pressing damp wool,  
but when used for pressing seams,  
hems, and finishes it should be dam-  
pened. Never leave the iron in one  
spot; keep it moving. Do not press  
entirely dry; if pressed until dry the  
seams will probably shine. Hang the  
garment where there is good circula-  
tion of air until it is thoroughly  
dry. Fold plaits and pin each plait  
to ironing board. Remove pins and  
press again to remove pin marks.

To remove shine from garment,  
sponge the parts with ammonia wa-  
ter (one tablespoon of household  
ammonia to one pint of water).  
Place the right side of the garment  
on the cloth, cover with dampened  
canvas cloth, and iron until almost  
dry. Remove the cloth and brush  
the garment with a stiff brush to  
raise the nap.

Bagginess at knees of trousers  
and skirts or at elbows of coats may  
be shrunk out by spreading the gar-  
ment flat on a board, placing a well  
dampened canvas cloth on the bag-  
gy portion and pressing until the  
cloth is almost dry.

## MILK DRINKS

**Y**OUNGSTERS who need more  
milk but who will not drink it  
may be induced to drink their  
daily portion in milk shakes and  
malted milks. The following sug-  
gestions for home-made milk drinks  
are taken from a special circular  
used in the 1926 Nebraska exten-  
sion project in foods: For straw-  
berry milk shake, mix two table-  
spoons of strawberry syrup with one  
cup of chilled milk. Make the syr-  
up from canned strawberries or  
strawberry jam, or by combining  
half as much sugar as fresh fruit in  
a mixture which must be cooked  
until the berries are softened. Rasp-  
berry or cherry syrup may be used  
instead of the strawberry. Caramel  
or chocolate syrups may also be  
used. For chocolate malted milk,  
make a chocolate syrup by boiling  
together one cup of sugar, one-half  
cup of water, and one square of cho-  
colate, put three tablespoons of  
milk in a glass and add enough hot  
water to dissolve the malted milk,  
then add two tablespoons of the

The Farm Home  
A Department for the Women

Edited by MRS. ANNIE TAYLOR

**D**EAR FOLKS: I once heard a doctor say that when a person's feet were sick they were sick all over. I readily agree with this statement and think you do too if you have had any trouble with your feet. People with troublesome feet would be interested in a circular on good-fitting shoes for the family recently issued by the University of Wisconsin from which the following rules are taken: Buy shoes for comfort as well as looks; Help children to keep normal feet; Relieve pressure—which causes corns, callouses and ingrowing toe nails—with good-fitting shoes and hosiery; Remember, a salesman wishes to make sales. Do not buy unless he has a shoe that fits; Remember, a manufacturer changes the style of shoes to enlarge his market. You may help to control the style by always buying a shoe that is built on correct lines; Keep shoe trees in shoes when they are not in use; Protect the shoes in wet weather; Buy stockings with broad toes and a good length; Avoid stockings with seams on bottom of feet. This applies to stockings made in the home as well as to those purchased; Save time, prevent flat feet, and build strong arches by walking with toes pointed straight ahead; Exercise muscles in feet. These are very sensible rules and well worth following. Comfort before style is a mighty good rule to follow.

Your Friend,  
Mrs. Annie Taylor

Address letters: Mrs. Annie Taylor, care The Business Farmer, Mt. Clemens, Michigan.

chocolate syrup and beat the mix-  
ture with an egg beater. Fill the  
glass with cold milk and beat again.  
If ice cream is available and can be  
beaten into the drink, it is better  
than the cold milk.

## MUMPS

**W**HILE doing some shopping,  
a physician overheard a wo-  
man talking in the most sym-  
pathetic manner to another. It was  
the more interesting in that the wo-  
man who was giving the advice was  
a saleswoman. She was a sensible  
looking and a sensible talking per-  
son and the doctor listened, with-  
out a thought of being rude.  
"Mumps!" said the saleswoman  
while she swiftly and automatically  
wrote out the order slip. "Mumps  
is not pleasant and can give rise to  
rather serious symptoms. I should  
put him to bed if I were you and  
send for your doctor. It isn't any-  
thing to be worried about, but you  
should see that he has good care. I  
know, because I have just been tak-  
ing care of my boy with the same  
thing."

Another woman spoke up—one  
who was standing by, waiting for a  
parcel. "My child had a peculiar  
case of mumps. All the little glands  
under her chin and along her neck  
were swollen."

"That is unusual," said the sales-  
woman. "Mumps is a disease of  
the gland just in front of the ear.  
Was that swollen too?"

"Oh, no indeed, but I am sure it  
was the mumps, however."

Of course, by that time the phy-  
sician took a hand—if one can take  
a hand in a conversation—and told  
them that the saleswoman was cor-  
rect. Mumps is a disease—an infec-  
tious disease of the parotid gland

which is located just in front of the  
ear on both sides. The glands of  
the neck and under the chin may be  
swollen also, because they pick up  
a little of the infection too. Some-  
times there is a spreading of the in-  
fection and by devious ways the  
ovaries in girls and the correspond-  
ing organs in boys may become in-  
flamed. To avoid this last compli-  
cation, it is wise to put the patient  
to bed for a few days, and if neces-  
sary, until the swelling has entirely  
disappeared.

A physician should take care of a  
case of mumps so that his skill and  
knowledge may prevent any further  
trouble from developing. There are  
many little points too about the diet,  
and the best way to feed these pa-  
tients who find great difficulty in  
opening the mouth. Sometimes the  
pain becomes very acute and seda-  
tives are called for. Here also the  
doctor can ease the patient as no  
one else can.

And, by the way, if there is no  
swelling in the gland in front of the  
ear but only in the neck and under  
the chin, a physician should be sent  
for at once. The chances are that  
the trouble is not mumps but some-  
thing else, and not always an un-  
menacing thing either!—Dr. B. S.  
Herben.

SOME NOVEL WAYS OF  
USING SACKS

**T**HE question is often asked,  
"What use can I make of sugar,  
flour or grain sacks?" This  
question can be answered in a vari-  
ety of ways.

Attractive pillow tops and rugs  
can be made from gunny sacks.  
Since these sacks are a very open  
weave, designs in cross stitch with  
yarn can easily be made. Patterns of

plain stitch can also be worked in  
bright colors. If the sack is very  
flimsy, a piece of material can be  
stitched to the sack to help keep it  
in place.

When grain sacks are laundered  
they lose some of their stiffness and  
can be used in a number of ways.  
An excellent heavy laundry bag can  
be made from a grain sack by simply  
running a draw string in the top.  
A larger hem may be turned or eye-  
lets made about three inches down  
from the top.

A good serviceable roller towel  
can be made from a grain sack. Cut  
off or open the hem at the top. Cut  
down each side lengthwise; do not  
cut double lower end of sack; stitch  
the two top edges of sack together.  
Flat felled seams are best to use.  
Hem the two long edges.

Sugar sacks and flour sacks are  
perhaps the most common used in  
the household. Small salt sacks may  
also be used to advantage. Here is  
a list of clothing and household ar-  
ticles that might be made from flour,  
sugar or salt sacks:

Wearing apparel: dresses, aprons,  
night gowns, slips, men's shirts,  
boys' shirts, baby dresses and petti-  
coats, handkerchiefs, rompers or  
boys' blouses.

Household furnishings and kit-  
chen supplies: dresser scarf or set,  
lunch cloth and napkins, table  
cloths, doilies, towels, wash cloths,  
porch pillow covers, tea towels, hold-  
ers, pads, and dish cloths.

FRENCH CHALK FOR CLEANING  
WALL PAPER

**W**HEN some members of the  
family have been unfortunate  
enough to spot the wall paper  
with furniture polish, don't waste  
any time fretting or scolding about  
it. Instead of that apply some  
French chalk as quickly as possible.  
If you haven't any on hand, perhaps  
you live near enough to the drug  
store to get some in a short time.  
Spread newspapers on the floor, then  
take a cloth and pack the dry chalk  
(as much as you can make stick) on  
each spot. Allow it to remain on  
the spot about twenty-four hours,  
then brush off. If any of the spot  
remains, pack on fresh, dry chalk.

This treatment may not remove  
spots made by all polishes, but it is  
usually successful. Furthermore,  
there is nothing in the chalk that  
will do any harm to the most deli-  
cate wallpaper.

## FOR THE ROADSIDE MARKET

**Y**OU women who have roadside  
markets can do well by prepar-  
ing jelly pickles, jams, etc., in  
jars or glasses and put them on dis-  
play among your vegetables. Tour-  
ists like such things especially if  
home made. Of course, you would  
have to ask enough to cover jelly  
glasses and jars as they would want  
to take them along. Fresh butter-  
milk and cottage cheese would also  
sell but must be kept free from  
dust.—Mrs. M., Kalamazoo County.

## Personal Column

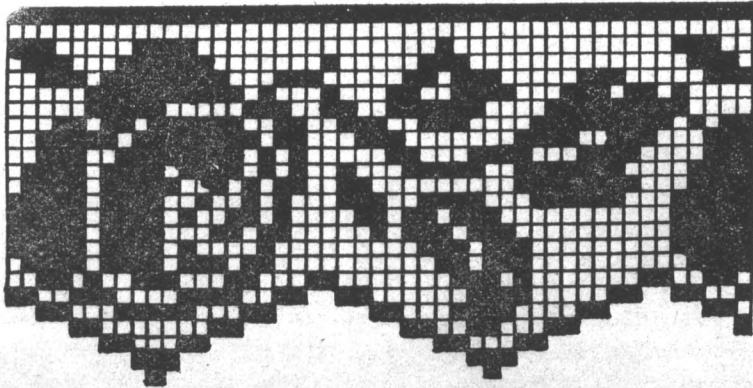
**Wants Recipe.**—I would like to ask if  
anyone knows how to make the good  
kind of chop suey, so if anyone knows  
a good recipe please lend it to me.—Mrs.  
H. W., Johannesburg, Michigan.

**Mittens From Fur Pocket of Old Coat.**  
—After finishing my Saturday's work and  
had my supper dishes washed, I sat down  
to read THE BUSINESS FARMER and turn-  
ing to the women's department, I could  
not help but take my pencil and paper  
and write a few lines. The suggestion  
of Mrs. G. M., is all right. I made a  
lovely pair of mittens for my grand-  
child this Christmas out of a fur pocket  
of an old coat, the palm and bottom of  
thumb out of a blanket, the top of an  
old rib bed stalking just like men's can-  
vas gloves and they could not believe  
grandma made them.

One of my daughters came home and  
said, "Why, mother, that pea soup smells  
and looks so good. Mine doesn't look  
like that, it is always so watery." I told  
her to use boiling water when her soup  
got too thick and her trouble would be  
ended. She told me later that my ad-  
vice had helped.

I am most always in the house on ac-  
count of poor health and bad roads, but  
don't mind it very much if I have some-  
thing to do. I keep busy part of the  
time with the house work, but I love  
sewing especially on quilts, but have no  
pieces to sew. Would like to know if  
some one could help me by giving me  
some information as to where I could  
get some? Will be glad to hear from  
some one.—Mrs. A. DeBoer, R1, Alamo,  
Michigan.

## FILET EDGING



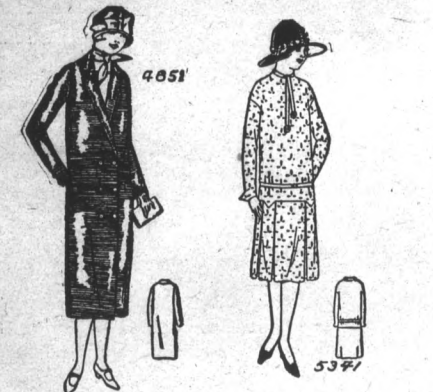
This design for a filet edging is suitable for many purposes. It  
would look particularly well around the outside edge of a bed-  
spread, or for the end of a pair of pillow slips. If used for  
the bedspread work with heavy thread and gauge the stitches  
so that there are five or six meshes to the inch. If used for pillow  
slips use fine thread and gauge the stitches so that there are eight  
meshes to the inch.



—if you are well bred!

**When the Bride Reaches the Bridegroom.**—As the bride reaches the bridegroom (who is waiting for her or has stepped forward to meet her) she withdraws her hand or arm from the arm of her father (who steps back), and handing her bouquet either to her maid of honor, or shifting it from her right to her left hand, she offers her right hand to the bridegroom. The bridegroom takes her right hand in his, and draws it through his left arm. As he does so he turns, so that both front the clergyman and chancel. If the bride prefers (and

AIDS TO GOOD DRESSING



**4851. A Stylish Coat.**—Top coats are ever serviceable and practical. The model here portrayed is good for any of this season's coat materials, and very smart in taffeta. The Pattern is cut in 6 Sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. A 38 inch size requires 3 3/4 yards of 40 inch material.

**5341. Youthful and Attractive Model.**—Crepé satin, or velvet would be suitable for this design. It is also good for wool rep or faille silk. The Pattern is cut in 4 Sizes: 14, 16, 18 and 20 years. A 16 year size requires 3 3/4 yards of 40 inch material, with 1/2 yard of contrasting material to face the collar and a belt 1 1/2 inches wide.



**5338. Simple Apron Style.**—Sateen, unbleached muslin, drill, cretonne or linen may be used for this style. The Pattern is cut in one size: Medium. It will require 1 1/2 yard of 36 inch material.

**5419. School Dress.**—Wool rep with plaid woolen or linene for collar and cuffs would be nice for this model. It is also a good style for wash materials. The Pattern is cut in 4 Sizes: 4, 6, 8 and 10 years. To make as illustrated in the large view, for a 10 year size, will require 2 1/2 yards of 36 inch material with 1/4 yard of contrasting material for collar and cuffs.



**5335. A Comfortable "Under Slip."**—This model is most desirable for stout figures. It may be finished with shaped shoulders or with a camisole top. The Pattern is cut in 9 Sizes: 38, 40, 42, 44, 46, 48, 50, 52 and 54 inches bust measure. A 42 inch size requires 3 3/4 yards of 36 inch material if made with shaped shoulders. If made with camisole top as shown in the large view 3 yards will be required.

**5332. A Stylish Wrap.**—Velvet, satin, kasha, brocade or metal cloth could be used for this design. Fur or fur fabrics, maribou or embroidery could be used for trimming. The fronts may be turned back to form revers, or may be lapped and closed to the neck edge as shown in the small view. The Pattern is cut in 4 Sizes: Small, 34-36; Medium, 38-40; Large, 42-44; Extra Large, 46-48 inches bust measure. A Medium size requires 3 3/4 yards of 54 inch material. To trim as illustrated in the large view will require 2 1/2 yards of fur banding 7 inches wide or 3/4 yard of fur fabric 54 inches wide.

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THE BUSINESS FARMER  
Mt. Clemens, Mich.

this is a detail which should be settled at rehearsal) she may simply hold the bridegroom's hand while she faces the clergyman, instead of taking his arm in the more formal manner.

The Runner's Bible

God created man in his own image.—Gen. 1:27.

To declare that you are well is to tell the exact truth. You are not flesh, but rather the ray of divine light that, shining upon flesh, makes it appear alive. This "You" is spiritual, and cannot be sick.

Recipes

**Apple Custard Pie.**—Nearly everybody likes good pie. Here is a dandy apple custard pie. One cup hot apple sauce, one heaping cup of sugar, half cup cold water, two tablespoons of flour, two eggs, pinch of salt, mix sugar, flour, water and eggs all together and beat. Save white of one egg back for on top. When you have this all mixed good stir into the hot applesauce and let cook until thick, but don't let it burn. When thick add one teaspoon of lemon extract. Put in crust, put on egg frosting and let brown. Try this, it goes like hot cakes in the hotels. This makes only one pie.—Mrs. H. W., Johannesburg, Michigan.

**Marshmallows.**—Soak two level tablespoons gelatin in seven tablespoons of water. Cook two cups granulated sugar and ten tablespoons water until it spins a thread. Put the gelatin on a platter and pour the melted sugar over it. Add one-half teaspoon of vanilla and beat until smooth, or about twenty minutes. Pour into square pans well buttered and set aside till solid. Then turn out on a board covered with granulated sugar. Cut in squares and keep in tin boxes or tight jars.

**Onion Syrup.**—Slice onions and sprinkle generously with sugar, bake in the oven without browning until soft, and strain through a coarse cheese cloth. If it is intended for grown-ups or older children it is all right without straining. The dose is from one-half teaspoonful to one tablespoon four or five times a day.—Mrs. H., Eaton County.

**Several Recipes.**—I desire to thank you very much for a personal reply to my recent inquiry concerning delivering telegrams and to show my appreciation have copied some cake recipes requiring one egg or less requested by Mrs. S., Auburn. Also, in reply to Mrs. P., Portland, will say, to can pumpkin can only by cold pack method, either by cutting in small pieces and packing in can with very little or no water and process three hours, or cook as for use and pack in cans and process one hour.

**Coffee Cake.**—One cup sugar, one egg, one-half cup shortening, one-half cup sour milk, one-half cup coffee, one-half teaspoon nutmeg, one teaspoon cloves, one teaspoon vanilla, one teaspoon soda, three scant cups flour, one cup raisins.

**Buttermilk Cake.**—One cup brown sugar, one-third cup shortening, one cup buttermilk, one teaspoon cinnamon, one nutmeat, two teaspoons soda, one cup of raisins, two cups flour.

**Cheap Fruit Cake.**—One cup sugar, brown, one-fourth cup butter, one cup buttermilk, one teaspoon soda, one teaspoon cinnamon, one teaspoon cloves, one teaspoon allspice, one tablespoon molasses, one cup raisins, two level cups flour.

**Brown Stone Trout.**—Yolk of one egg, two squares grated chocolate, one-half cup sweet milk, boil together until thick then add two tablespoons butter, one and one-half cup brown sugar, one-half cup sweet milk, one teaspoon soda, one teaspoon vanilla, flour to thicken.

Coffee may be used in place of sour milk in any dark cake where soda is used.—Mrs. B. L., Macomb County.

**Canning Grapefruit.**—This week I Canned some grape fruit. My first attempt at it. I peeled, seeded and removed everything not eatable, rolled the pieces in sugar and packed in sterilized pint cans, poured a hot syrup (sugar and water) over two cans, put on cover and rubber and put away. Two cans I put in canner after putting in syrup one hour. Now I shall watch and see how it comes out.—Mrs. R. S., Indiana Harbor, Indiana.

**Molasses Cake.**—Beat one egg; add 1/2 cup sugar, 1/2 cup lard, 1/2 cup molasses, 1 cup boiling water containing 1 teaspoon soda, 1 teaspoon allspice, and 2 cups of sifted flour. Bake in moderate oven.—Mrs. M., Saginaw County.

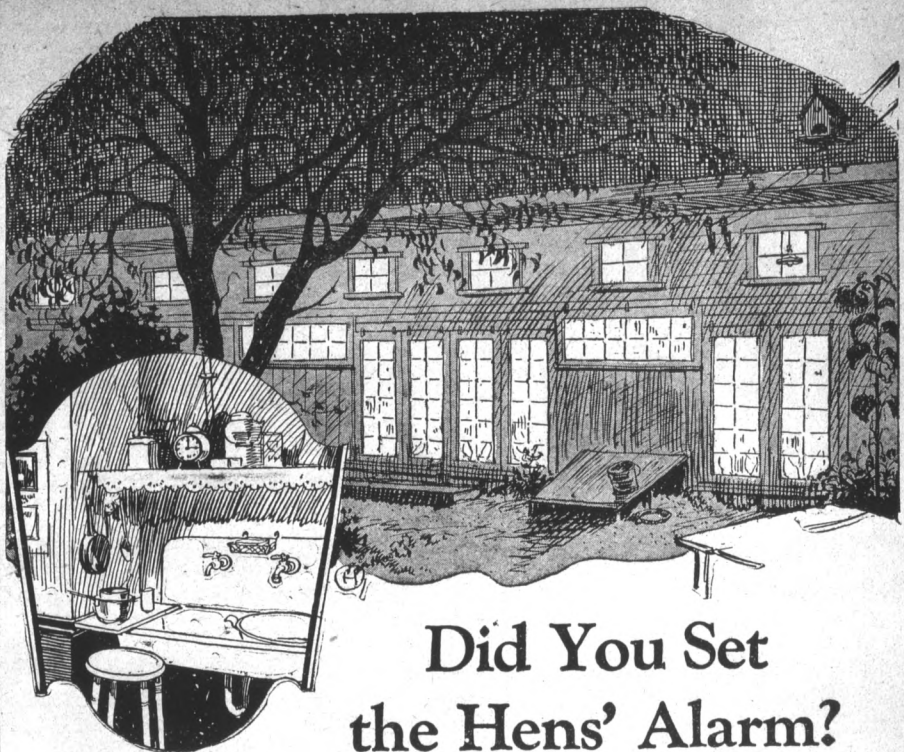
Homespun Yarn

Good nature is one sign of good health.

Omelets cook to perfection in a moderately slow oven, at from 300 to 350 degrees Fahrenheit.

Teach the child to know his own property before expecting him to share it with others.

Are the ornaments over the fireplace beautiful enough to be worth dusting fifty-two times a year?



Did You Set the Hens' Alarm?

One farm woman—Mrs. P. C. Engle of Indiana—uses an alarm clock to wake her 275 white leg-horns.

The clock throws the switch automatically, flooding the roost with electric light. Mrs. Engle sets it back fifteen minutes every other day, so that by the last of August the birds are getting out at three in the morning—and the day's lay has come to 118 eggs.

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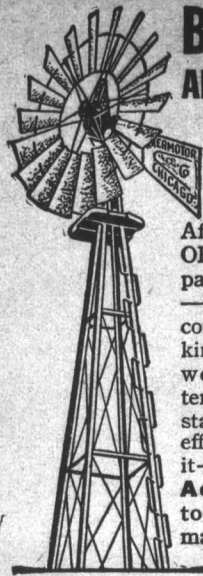
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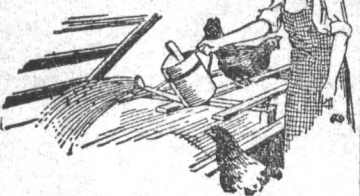
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## Get busy with your SPRINKLING CAN



SPRING is the time to clean up and disinfect.

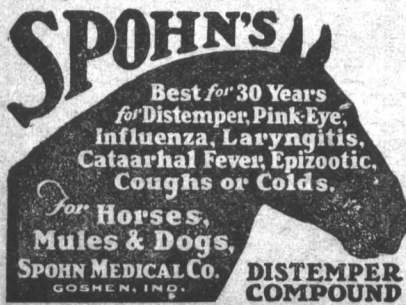
Time to get busy with the sprinkling can charged with a solution of Dr. Hess Dip and Disinfectant.

Sprinkle it in the poultry-house—in the nests, roosts, floors. Spray it in the cracks and crevices to kill the mites.

Sprinkle it in the cow barns, in the pig-pens, sinks, drains and closets—wherever there is filth or a foul odor. It kills the disease germs, keeps everything everywhere, healthful and clean-smelling.

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Ashland, Ohio

## DR. HESS DIP and DISINFECTANT



### IT'S IN THE AIR

M. B. F. market reports, every evening except Saturday and Sunday, through WGHP, beginning at 7 o'clock, eastern standard time. Wave length, 270 meters.

## Value of Boys' and Girls' Club Work

(Continued from Page 4)

two calves a close chase for top honors.

Mr. Eldon Bruce, cow tester for Tuscola No. 1 has this to say about club work. "I have found that club heifers have left a lasting impression in localities where they have been placed. In every case, they are among the leaders of the herds they go into."

An incident worth relating happened at the Cass City fair in 1924. The club heifers were about to be judged and a large group of farmers were on hand to witness it. Mr. Pearson, the assistant state club leader, placed the awards and did a splendid job of it. After the judging, someone in the crowd spoke up and said that he thought the judge must have had a beef animal in mind in placing the blue ribbon where he did. The animal in question was a little coarse over the shoulder but otherwise was a splendid type of dairy animal with a straight rump and plenty of middle for a heifer. Since freshening, she has given as high as 41 pounds of 3.5 milk in a day. From the local fair, she went to Caro and then to Bay City the following week where different judges placed her first and Junior Champion. At Detroit in club work she was grand champion female, and in the open class fourth in competition with the leading herds of the country. In 1925 she again was grand champion female in club work and placed fifth as a two year old in milk at Detroit. The heifer that was too beefy to be a good dairy cow had done the unexpected and has made to date about \$100 for her proud owner besides giving a good quantity of milk for a two year old.

As a general rule, pigs are overfed and cattle underfed. Our best gilt at Detroit last fall gained at the rate of 1.32 pounds per day for ninety days while a litter mate starting at the same weight but fed a heavier ration was not good enough to take farther than the local fair. She was in the last five pigs in a class of twelve and had gained at the rate of 1.7 pounds per day. One of the noted Chester White breeders of the present day had this to say about gains. "Tell me what the pig weighs at three months old and I will tell you whether she has a chance in the show ring." Judges last fall were very partial to gilts that were in just good growing condition. There is less danger of the hog going off its feet and a much better chance to develop a good framework in gilts of this type.

### Must Feed Variety

I have found it hard to convince the boys and girls starting out in club work with a calf, that they must feed a variety of feeds. After they have been in competition with animals that have had the feeds necessary to get a maximum growth, little trouble from this source is noticeable. And right here is one of the big benefits of the club work project. Club members know what the prize winning calf was fed on and how it was handled. They know what constitutes good conformation and where their calf is lacking. This was very evident at our drawing for calves last spring when most of the second year boys picked a straight thin heifer as their choice of the ten heifers that were distributed. The average boy or girl would have easily placed her last in the class for she was anything but attractive in her thin condition.

We find that best results come from getting yearling heifers rather than something smaller. At about this age the animal is taking on the form that we expect to find in the mature animal. Then too, the feeding of an older animal is not as difficult as with a younger calf.

### Exhibition Period

The exhibiting period is of course an exciting time. Previous to this event at intervals during the summer the club members have met to discuss such matters as feeding, care and showing of animals. The club leader can direct feeding when visiting the different projects, but the training the animal gets is left to the boy and girl. It is a very important consideration if the animal

is to go to some of the larger fairs. I usually tell my club members that there are just three individuals in the ring—the judge, the animal he is showing and himself. Never is he allowed to talk to any one and his personal appearance should be for the occasion.

An incident that happened at the 1925 State Fair illustrates the value of showmanship. One of my boys, Raymond Wallace, was showing a Duroc gilt that previous to this time had not been defeated in three shows. She carried a fine back, had plenty of length and good feet but showed some weakness over the shoulder, especially while standing. The pig club pigs were placed with Raymond's gilt placing fifth in a class of sixteen gilts. The pigs that placed ahead of her displayed splendid type and I think were litter mates. The next day the open class Durocs were to be judged and Raymond insisted on showing his pig. She was well trained and his plan was to keep her moving while in the ring and if possible cover up some of her prominent shoulder. He was successful for he left the ring with the blue ribbon safely clutched in one hand and is lead stick in the other. In that ring were twenty-seven gilts from four states. Showmanship had won.

The student that completes a project of this type learns more about the business of farming because it is his problem and not dad's. He feeds, cares for, and exhibits his animal and everyone of these operations present some difficulties to be worked out in a practical way by himself.

The successful farmer of tomorrow must know how to keep records, use best cultural methods, weigh values, and last but not least come to realize that farming is a business requiring a scientifically trained man.

### REMOVE WOOL FROM PELT

Would you please tell me how to remove the wool from the sheep pelts that we have, after butchering? We have use for the wool but do not care for the pelts. Would like to do this at home if possible.  
—C. L., Cedar, Mich.

THE following recipe is said to give good results in removing wool from fleeces: Soak until very soft. Dissolve two ounces of potash in one gallon of soft water, and with this make a paste of equal parts of lime and hard wood ashes. Spread on the flesh side, roll flesh sides together and lay skin in damp place. Wool will start in two hours.  
—Geo. A. Brown, Professor of Animal Husbandry, M. S. C.

## OUR BOOK REVIEW

(Books reviewed under this heading may be secured through The Michigan Business Farmer, and will be promptly shipped by parcel post on receipt of publisher's price stated.)

**Farm Engineering.**—By Byron Burnett, M. S. A., professor of rural engineering, Cornell University, and Frederick Gardner Behrends, B. S., professor of rural engineering, Cornell University. This is one of the Wiley Farm Series, which includes the latest books of two of Michigan's own men, Prof. J. F. Cox and Prof. J. T. Horner which have been reviewed in our columns recently. There are ten chapters in Farm Engineering, one for each of the following subjects: harness repairing; knots, hitches and splices; belts, pulleys and shafting; soldering; painting; leveling; farm drainage; concrete work; a farm water system; sewage disposal. The book is cloth bound, contains 435 pages, 5 1/4 x 8 inches, and is well illustrated with 470 figures. The publishers are John Wiley and Sons, Inc., and the net price of the book is \$2.50.

Many, many thanks for your information regarding my letter of recent date. I feel very much indebted to you and if I owe you anything please let me know as I am always willing to pay my honest debts.—O. E., Plainwell, Michigan.

### CANCER — FREE BOOK SENT ON REQUEST

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Treat these ills with Gombault's Caustic Balsam. You can apply it yourself easily. Directions with every bottle. Won't scar or discolor hair. \$2.00 per bottle at drug stores, or direct on receipt of price.

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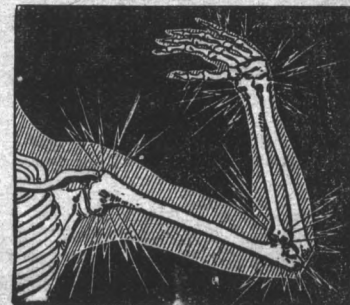
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Caustic  
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## Rheumatism

A Remarkable Home Treatment Given by One Who Had It

In the year of 1893 I was attacked by Muscular and Sub-Acute Rheumatism. I suffered as only those who are thus afflicted know for over three years. I tried remedy after remedy, but such relief as I obtained was only temporary. Finally, I found a treatment that cured me completely and such a pitiful condition has never returned. I have given it to a number who were terribly afflicted; even bedridden, some of them seventy to eighty years old, and the results were the same as in my own case.



"I Had Sharp Pains Like Lightning Flashes Shooting Through My Joints."

I want every sufferer from any form of muscular and sub-acute (swelling at the joints) rheumatism, to try the great value of my improved "Home Treatment" for its remarkable healing power. Don't send a cent; simply mail your name and address, and I will send it free to try. After you have used it, and it has proven itself to be that long-sought-for means of getting rid of such forms of rheumatism, you may send the price of it, One Dollar, but understand I do not want your money unless you are perfectly satisfied to send it. Isn't that fair? Why suffer, any longer, when relief is thus offered you free. Don't delay. Write today.

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Mr. Jackson is responsible, above statement true.

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**STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, of the Michigan Business Farmer, published biweekly at Mount Clemens, Mich., for April 1, 1926.** 1. That the names and addresses of the publisher, editor, managing editor and the business managers are: Publisher, George M. Slocum, Mount Clemens, Mich. Editor, Milton Grinnell, Mount Clemens, Mich. Managing Editor, Mount Clemens, Mich. That the owners are: Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock. The Rural Publishing Co., Inc., Geo. M. Slocum, M. H. Slocum, R. J. McColgan, Henry F. Hopkins, Milton Grinnell, Mt. Clemens; W. W. Slocum, Farmington; C. Allen, Lake, A. and E. Amos, Owosso; N. Powell, Oden; C. J. Pratt, Charlevoix; J. Ritzler, Rogers; W. Schriener, Marine City; A. Voss, Luther; B. Wolff, Rigsville; F. Yost, Bridgeport; T. L. Smith, Wellston, Mich.; E. Ellsworth, Washington, D. C.; F. R. Schalk, Chicago, Ill. 2. That the known bondholders, mortgages and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are (if there are none so state.) Citizens Savings Bank, Mt. Clemens; R. R. Olds, Detroit, Mich. Milton Grinnell, Editor. Sworn to and subscribed before me this 1st day of April, 1926. Hudson E. Root. My commission expires, February 22, 1928.



# DAIRY and LIVESTOCK

(We invite you to contribute your experience in raising livestock to this department. Questions cheerfully answered.)

## WHAT EXPERIMENTS HAVE SHOWN ABOUT MINERALS

**A**NIMALS that are fed for high condition for show purposes often fail to breed when placed in the breeding herd. This can be accounted for in no other way than by a disturbance of the mineral balance. The growth of muscle is much faster than that of bone tissue, yet no special provision is made for a rapid development of the skeleton. A mineral supplement properly balanced and prepared would prevent many such irregularities with young, growing animals when fitting them for show purposes.

Research workers at the agricultural experiment station of the University of Wisconsin have found that certain rations when fed to cattle were not adequate for these females to produce live, healthy calves; such rations were supplemented by substances containing vitamins, which were then thought to be the controlling factors in such rations, but successful results were not obtained. It was only upon the addition of mineral supplements that these rations became such that the females produced strong, healthy calves. It is now generally conceded that many outbreaks of abortion which were previously thought to be contagious are caused by feeding a ration that is too low in mineral elements.

Very convincing evidence has been secured by workers of the United States Government Experiment Farm at Beltsville, Maryland, in increasing the production of the dairy herd, by the addition of calcium and phosphorus in their feed. When these animals were supplied with a generous supply of phosphorus in their feed the following lactation period showed an average increase in production of 39.7 per cent over what was expected of them from their previous records. There was no other factor to which this increase could have been attributed aside from the use of phosphorus. Heifers, as a rule, give a milk flow corresponding to the manner in which they make up udder before freshening. Those animals that are fed upon a ration that is rich in minerals, or to which mineral supplements have been added, make up udder over of considerable period of time. This fact has been observed at the United States Government Experiment Farm. The workers at the United States Dairy Experiment Farm, say: "The results show, therefore, that the cows of the general herd at Beltsville suffered from an insufficiency of either calcium or phosphorus, or both, in their rations through their lives, both before their first calves were born and afterward." They say further: "The bone-building elements can probably be supplied in sufficient quantity in two different ways—either by feeding the ordinary materials much more liberally than the feeding standards require, or by adding calcium and phosphorus in the form of inorganic salts directly to the rations. We are confident that the latter method will finally be adopted and will effect a great saving in the cost of producing milk." In their summary they say: "But the records from the general herd indicate that, under the Beltsville routine, the animals never recovered from the mineral shortage which made itself evident in the first lactation period." This supply means that heifers which do not receive enough minerals never give as much milk as they should.—Dr. George H. Conn.

## MICHIGAN COW WINS GOLD AND SILVER MEDALS

**H. F. PROBERT** of Jackson, Michigan, has developed and tested another outstanding dairy cow in Variella's Sirona. This Jersey cow now has three Register of Merit production records to her credit, but the last one, which was but recently completed, is the best record that she has yet made.

Variella's Sirona was placed on this latest test at four years and one

month of age, and in the following 365 days yielded 718.96 pounds of butter-fat and 14,088 pounds of milk. She made this record while carrying calf, so she thus qualified for both the Gold and the Silver medals of the American Jersey Cattle Club.

This splendid producer was first tested as a yearling when she produced 485.99 pounds of butter-fat and 8700 pounds of milk in 365 days. As a three-year-old she produced 359.44 pounds of fat and 6812 pounds of milk in 305 days.

Sirona's sire is Variella's Flying Fox, a son of Oxford Daisy's Flying Fox. Her dam is the Register of Merit cow, Oxford Daisy's Sirona, another daughter of Oxford Daisy's Flying Fox, a sire which has forty-one daughters and three sons in the Register of Merit.

## KELLY AND SON MOVE

**M**ANY of our readers will be interested to know that L. C. Kelly and Son, breeders and exhibitors of Polled Shorthorn cattle and Shropshire, Southdown and Cheviot sheep, who have been proprietors of Ridge Road Stock Farm, near Plymouth, have sold out and bought another farm near Marshall where they will continue to breed purebred stock. They purchased the Arms Farm and have renamed it River Side Stock Farm.

## CORN TOO VALUABLE TO PUT IN SILO?

In making a call on one of my neighbors the other day, I noticed his silo was empty although his fields were full of corn. I ventured to ask him why his silo was empty and he replied that the corn was too good this year to put in a silo. Is this a fact or didn't he use good judgment? — Subscriber, Turner, Mich.

**I**CANNOT conceive of an instance in which corn is "too good" to put in a silo in Michigan.

There may be other legitimate reasons for not filling the silo in this particular instance, e. g., not sufficient livestock on the farm to consume the ensilage, no ensilage cutter with power available, possibly too muddy to cut and draw the corn from the field, or use of the bulk of the crop for seed.

The expense per unit of growing a crop of corn for the silo can unquestionably be reduced by producing a high tonnage per acre of matured high quality silage. In fact a good many dairymen are satisfied to sacrifice some on maturity to increase the tonnage per acre by growing larger, later varieties.

If it is profitable to feed corn and fodder to horses and cattle in the dry form, putting that same crop into the silo at the proper time does not detract in any way from its total nutrient value. In most cases the increased cost of ensiling will be offset by the saving made over leaving that same corn in the field. At the proper time to ensile corn approximately 80 per cent of the nutritive value of the crop is in the ears and 40 per cent is in the fodder. It does not gain in value after it reaches the glazed stage of maturity, but it begins the process of hardening down and releasing the surplus moisture, which is necessary before the corn can be cribbed.

During weather conditions such as we had last fall there is bound to be a heavy loss both in the molding of the cribbed corn and spoilage of the fodder.

Corn fodder loses very rapidly its nutritive value after the corn is husked on the standing stalks. Corn fodder is not all cleaned up by the livestock on account of its woody, fibrous condition, even tho it is cut and shocked, a considerable portion of the large butt ends of the stalks being left in the manger to be thrown out into the manure pile where it makes forking of the manure difficult.—J. R. Duncan, Instructor in Farm Crops, M. S. C.

Are you a member of a dairy improvement association?

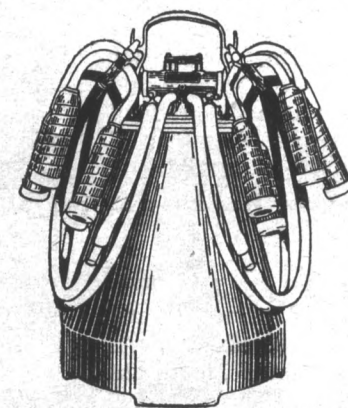
## Only Two Parts to the New Perfection Teat Cup



It's easy to clean

**THIS** year the old Reliable Perfection Milker comes out with another great improvement—the simple 2 piece teat cup. One pull and its all apart and is put together again just as quickly. The Perfection has always been easier on cows because it uses less vacuum than any other milker. Low vacuum means contented cows. Contented cows means more milk. With these new teat cups the vacuum is again reduced. Furthermore the new teat cup milks faster and cleaner.

A set of these new teat cups will make any inflation type milker better. Why milk by hand any longer? Perfection has proven its economy in hours and drudgery saved for thirteen years already.



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For Scratches, Wounds and  
common skin troubles.

## THE FOLLOWING BOOKLETS ARE FREE:

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- No. 185—HOG WALLOWS. Gives complete directions for the construction of a concrete hog wallow.
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## Drenching of Cattle Dangerous

OWING to the present day method of housing cattle during the winter months they are very susceptible to what is known as stoppage of the bowels of constipation, when as a matter of fact about 75 per cent of such cases are really due to partial paralysis of the bowels, caused by consuming a large amount of coarse, dry and indigestible roughage and lack of exercise, or by consuming too much green fodder in summer.

The first thing that enters the mind of the owner of cattle when they are thus afflicted is that they are constipated and the old-fashioned method of giving medicine is resorted to consisting usually of salts or oil administered as a drench. If one drench does not kill or cure them they keep right on giving these liquid drenches, administered with a long-necked bottle, as shown in drawing.

Owing to the fact that when a cow's head is elevated and her mouth is open it is next to impossible for that animal to swallow for the reason that the bottle is in her mouth and oftentimes held there until all the contents have been drained.

It is a fact that the valve of the gullet is always closed and the valve of the windpipe is always open except during the act of swallowing, at which time No. 1 (see drawing), the point of the windpipe valve passes over to No. 2 closing the windpipe and thereby preventing the liquid from passing into the lungs. When the animal closes its mouth the liquid is forced down the gullet into the stomach, but when the head is elevated and the mouth open the act of swallowing is very difficult. Herein lies the danger of drenching. A portion of the liquid is very liable to pass through the windpipe and into the lungs and if it does not kill the animal instantly it may do so in a day, a week, a month or even three months after drenching, the animals dying from chronic pneumonia as a result of the liquid entering the lungs. For this reason drenching cattle is very dangerous and it would be surprising to know the enormous loss suffered annually by this method of administering medicine to cattle.

The question naturally arise then how should animals be given medicine with safety? It can be given in small doses in powder form, dry on

the tongue of the animal. It readily mixes with the saliva of the mouth and the animal swallows naturally, without holding her head up high, as is done when drenching.

Such medicine should be given as will be absorbed by the mucous membrane of the mouth, stomach, and bowels and be taken up into the circulation. This passes into all the little blood vessels in the tissue of the stomach and bowels causing them to give off a moisture such as the gastric juices, naturally aiding digestion, assimilation and movement of the bowels in a normal way.

On the contrary the action of salts is to stimulate the mucous membrane of the stomach and bowels rather than stimulating the nerves of them, oftentimes causing congestion and inflammation of the bowels and death may follow before the desired results have been obtained. The presence of the oil in the book stomach of the animal has a very bad effect as it gums up the little pores that give off the juices which aid digestion and lubricate the stomach and bowels.

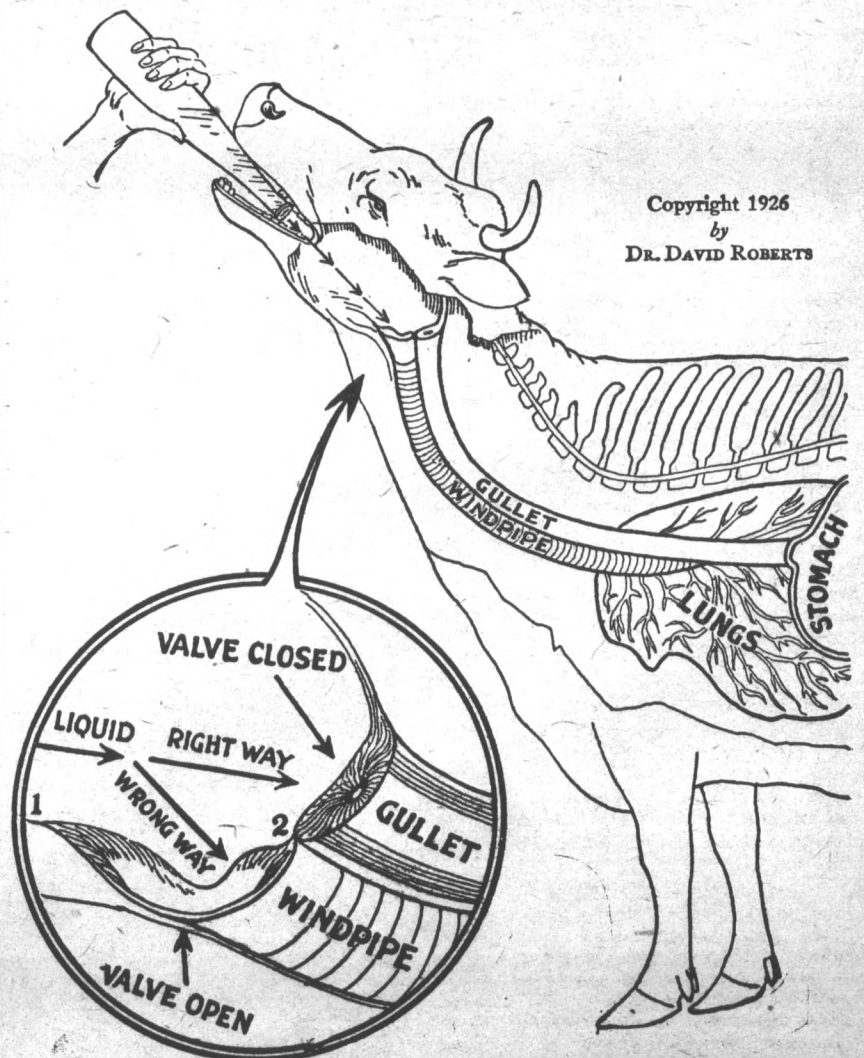
When this takes place the food is retained in the book stomach and begins to decompose and give off a poisonous gas that causes the animal to bloat, have sunken eyes, drooping ears and a dry nose. Rapid emaciation follows, resulting in death in a very short time if allowed to run its course.

When there is a stoppage of the bowels it is a difficult task for the layman to determine as to whether a cow is afflicted with constipation or paralysis. For this reason such medicine as will overcome either paralysis or constipation should be administered. For instance a physic will not overcome paralysis, but a nerve stimulant will overcome both paralysis and constipation.—David Roberts, D. V. S.

We have taken the M. B. F. for about four years. The children as well as my wife and myself always anxiously await the arrival of same.—Jim Harrigan, Grand Traverse County.

Enclosed please find a check for one dollar for which to renew my subscription. I do not like to miss one single copy.—Bert Kampe, Chippewa County.

Your answer to my inquiry has been received and I want to thank you very kindly for your very prompt service and kindness in this legal matter.—L. B., Bay City, Michigan.



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by  
DR. DAVID ROBERTS

Practice of drenching cattle dangerous.



## Methods of Curing Pork

If it is desirable to keep pork in brine throughout the summer a plain salt pickle should be used. Meat to be cured should be allowed two or three days after slaughter to thoroughly cool off before being cured, but should not be allowed to freeze.

First rub each piece of meat carefully with plain salt, and lay on a table or board, allowing it to drain for 24 hours, after which it can be carefully packed in a clean barrel or preferably in an earthenware crock, placing the hams and shoulders and heavier pieces on the bottom of the barrel or crock, and the lighter pieces on top. All pieces should be placed in the barrel with skin sides down. Then cover with brine made as follows: For each 100 pounds of meat, use 10 pounds of coarse salt, 2 ounces of saltpeter, and 4 gallons of water. The curing mixture should be boiled and all scum which rises to the surface removed; then allowed to become cool. Pour over the meat, using a heavy stone to weight down the meat so that it will all be under the brine. The meat should be taken from the brine and repacked at the end of the first and second week. After this time the brine

should be watched carefully to see that it remains clear in color. If it should become cloudy in color or ropy in texture, the meat should be removed, washed off, and the new brine made to pour over it when repacked in the barrel. The meat should be kept in a cool, dry place during the summer to insure its keeping and should be watched very carefully to see that it does not go wrong.

For meat to be smoked, a more satisfactory method of curing is to use the sugar cure, the receipt for which is as follows:

For each 100 pounds of meat use: 8 pounds salt, 2½ pounds sugar or syrup, 2 ounces salt or, 4 gallons water.

In warm weather 9 to 10 pound of salt should be used. Heavier pieces of meat such as hams and shoulders should remain in this cure 4 days for each pound that they weigh. Bacon strips and lighter pieces should remain about 3 days for each pound of weight. The same directions as given above should be followed in sugar curing.—Prof. G. A. Brown, Dept. of Animal Husbandry, M. S. C.

## VETERINARY DEPARTMENT

Edited by DR. GEO. H. CONN

(Questions gladly answered free for paid-up subscribers. You receive a personal letter.)

### FEEDING TOO HEAVY

I have two pigs ten weeks old. Last week as one started to eat corn he squealed a little and dropped over on his back. He is weak and does not eat much. Last night the other was taken the same way. I feed them soft corn, scald their middlings, also ground limestone and alfalfa chaff.—R. G., White Cloud, Michigan.

**YOUR** trouble all comes from feeding your pigs too heavily of a fattening feed and not giving them enough of the growth making feeds. A lack of exercise also contributed to this. There is nothing wrong with these pigs and they would be satisfactory for pork; if this is not suitable, do not feed them anything but a light slop and no corn and then turn them out where they can have plenty of exercise. These hogs may go down completely in a short time.

### CAT HAS WORMS

We have a cat which is a very good ratter that has worms. They are about two inches long and very slender, like wire. They resemble a sewing needle in size and shape. Will you kindly advise what to do?—J. R. L., Freeland, Michigan.

**GET** the following for your cat: Oil of chenopodium, 5 drops; chloroform, 5 drops; oil of anise, 5 drops; castor oil, 1 ounce. Shut this cat up and give her nothing to eat for 24 hours; then give half of this in some sweet milk. In a week or ten days give the balance of it in the same manner.

### HOGS HAVE RICKETS

**WHY** you please give me some advice? I have some hogs, have had them in the basement of the barn all winter until the last few weeks. They got lame in front and back, especially back. Seems painful for them to move or get up. Legs very stiff. Can you tell me what to do for them?—L. R., Evart, Mich.

**YOUR** hogs have rickets. Get the following: tankage and add 15 pounds of steamed bone meal to each 100 pounds. Add this 100 pounds of tankage with 100 pounds of bran, 100 pounds of middlings and 150 pounds of ground oats. Mix this with skim milk and give as a slop. Move out of the basement. Do not feed any corn.

### UDDER TROUBLE

I have a cow which freshened a year ago last January and milked fine until about June when I noticed a lump forming on one side of her udder near one teat. In a short time another appeared and seemed to take the whole side of her bag, so severely that she was hardly able to walk. The milk flow then stopped on that side, excepting a yellowish

brown stringy matter could be stripped out. I had her examined by our local veterinary and I followed his advice and prescription faithfully, but did no good whatever. So in August I dried her up. She freshened again recently. The milk flow is the same now on all four teats, but gives very little, about one quart three times a day as that is the number of times I milked her today. The lumps seem to be forming again the same as when the trouble started but on opposite corners. Her bag is becoming so tight that one can hardly draw the milk from the teats. She otherwise is in good condition and has a good appetite. I also had four young cattle which became lame during the summer on one foot. This lasted about two weeks with most of them. There seemed to be no swelling.—E. J. L., Port Hope, Mich.

**UDDER** troubles are very dangerous and do not always respond to treatment; the cause of so much of them is too rich feeding before freshening, not keeping the udders milked out to relieve inflammation and not enough exercise; if you will see to each of these and give a good laxative about a week or ten days before calving you will often prevent much of this. When the attack has been very severe the animal rarely ever milks as well as before especially if there has been abscesses in the udder. I cannot give you any idea as to what made your young animals lame from the information given in your letter.

### COME IN HEAT

I have a cow that freshened three months ago. Is there anything I can do to make her come in heat? She is healthy and in good condition. I have another one who freshened a year ago and she has never showed signs of coming in heat. A year ago I gave her two doses of nux vomica and that brought her around, but that didn't do any good this year.—I. P., Crosswell, Mich.

**GET** 4 ounces of potassium iodide and dissolve it in one-half gallon of water; give each cow one tablespoonful on her feed once daily. Then give each of these cows 5 to 6 tablespoonfuls of steamed bone meal on the feed. The use of nux vomica is not likely to do any good.

### Hoped Wrong

He had run out of gas on the outskirts of a small town and there was not a service station in sight. He had just decided to leave the car where it was and start out to find a gas station when he saw a small boy slowly coming down the road carrying a large tin can.

"Say boy," he said when the boy came up to him, "I hope that is gasoline you have in that can."

"Well I hope it ain't" came back the reply, "cause it would taste like the dickens on Ma's pancakes."



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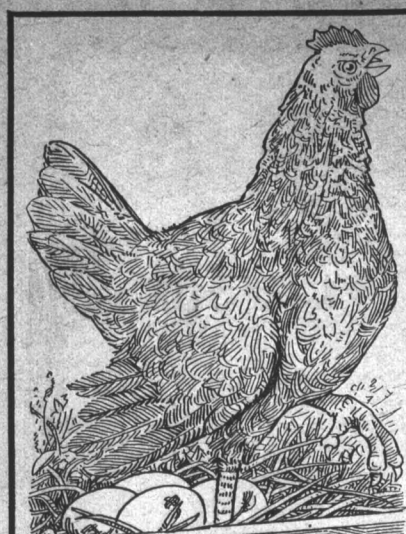
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You may send me entirely free a Sample Treatment of your stimulating application for Rupture

Name .....

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## BROADSCOPE FARM NEWS AND VIEWS

(Continued from Page 8)

circulate around these posts, and keep the air dry and clean under the hay. It seemed to make no difference if there was a little air under the hay, it would get musty without this ventilation. If we were to build a new barn where a hay mow came to the ground, we would put in cement sills for the flooring to rest on and have plenty of air space under the hay. Sure, it takes up some valuable space but it saves some valuable hay. It is rather disconcerting to have to use the bottom five feet of hay in a mow for bedding.

### Tomato Plants

Until recent years we have always planted our tomato seeds in pans, and produced some plants of good size for setting in the garden when suitable weather came. Of late years we have found it is just as satisfactory to plant the seeds in the garden where the plants are wanted. They seem to thrive better than plants grown in a house. A few real early plants are purchased, but for the general crop, those planted in the open are very good and are much easier to raise.

### Sweet Clover

Many are asking about sweet clover, and it seems there will be a vast acreage of this legume sown this spring. Sweet Clover and Alfalfa seed sales are larger than ever, and one would naturally conclude that common clovers are being discarded for them. It is possible clover is going to be discarded along with the horse? The old slogan was to make two blades of grass grow where only one had grown. The new slogan seems to be—make two alfalfa plants grow where one clover plant grows now. Well, here's success to you boys.

### It Is a Mistake

On this trip to Lansing we saw several places where horses and cattle were running in the fields, some in old meadow or pasture fields; others in corn fields. This is a mistake. It is a fact, this tramping in these muddy fields is very detrimental to soil conditions. As there is little feed for the animals they do much roaming around. This is sure to be injurious to these fields on all but the lightest sandy soil. It seems as if we pasture ground too much anyway for the good of the soil, even when it is comparatively dry; and to pasture it when it is so unsettled seems quite unjustified.

## SPENDING A DAY AT THE BIRTHPLACE OF FLIVVERS

(Continued from Page 3)

tion at Highland Park there was in existence, but when we drove in among the buildings at River Rouge and had the blast furnaces, coke ovens, glass factory, cement factory, paper factory, power plant, numerous other buildings Henry Ford's own railroad, and his own steamships pointed out to us, we realized that the infant had outgrown its cradle at Highland Park and came to River Rouge to grow. Over 60,000 men are employed here.

One of the first places we visited was the glass factory. Here we peered into a furnace where a temperature of 2500 degrees Fahrenheit is maintained and saw a "batch" of molten glass. The furnace is charged every fifteen minutes with sand, soda ash and other chemicals. The glass flows out in a continuous stream onto a slowly revolving iron drum, and passes under a roller which determines the thickness and rolls it into a sheet. It is slowly cooled as it passes along a conveyor, then cut into uniform lengths and continues along the conveyor under polishers until it arrives at the end of the line where it is given final inspection before cutting into windshields, and glass for windows and doors. In this same building they are making spark plugs on a small scale.

It is hard to say what was the most interesting of all we saw but I believe that most interest was shown over the assembling of the tractor. We started in at the wrong end of the line, according to some, because we saw the finished tractor first and then went up the line to the point where they poured the red liquid

iron into the molds for the engines, but it was a long walk and to follow it the "right" way would mean stepping along, with no time to observe, in order to keep up with the conveyor, so I am thankful we did go the "wrong" way.

As we walked up the line we noticed each man had his certain task to do and nothing else was expected of him, but he must perform that task because there was no one else in the line to do it in case he failed, which would mean a temporary tie-up. For example one man painted a certain part as the tractor passed him on the endless conveyor, and the man next to him began where he left off and painted a certain amount. Then a man on each side would put on the rear wheels while another man would put on the nuts, and so on down the line. When the tractor was driven off the conveyor at the end of the line under its own power the paint was not yet dry. In fact, 28 hours and 40 minutes after the raw ore is poured into the furnaces it leaves the factory in the form of a tractor.

Continuing back up the line we saw the engine as it gradually took form, how from just a rough block it was finished, holes bored and re-bored until they passed inspection, and the many parts added to it to make it a workable engine.

We saw machines greater than any magician. Machines into which they fed heavy wire and out of them came bolts. These bolts were placed into the hoppers of other machines and came out with a perfect thread cut on them. Then we saw a large hammer under which a sheet of metal was placed and the hammer slowly descended only to rise again and the sheet of metal had changed to a side of a car. What magician could perform such feats?

Nearly every place we went we saw the endless conveyor carrying different parts from department to department. Never in your way at any time yet close at hand so the workmen could easily reach such parts as was intended for him. What a wonderful time and labor saver it must be.

The great assortment of parts that passed before me caused me to think of a retail store operating on the same plan, a sample of each article they handled passing before the customer seated comfortably and reaching forward to take from the conveyor such articles as he or she desired to purchase. Perhaps the idea would not be practical at all, and certainly not if one was buying a horse, a threshing machine or any number of other articles.

Mr. Ford was the inventor of the endless conveyor which is now used in factories all over the world.

We did not have time to go through the cement or paper factories, but just before leaving we were taken through the plant where ammonium sulphate, which finds a ready market as fertilizer, is made. This is one of the by-products the company gets from coal in its coke oven.

Our guide informed us that from a ton of coal costing the company around \$5.00 delivered at the Rouge plant they made about \$13.00 worth of coke and by-products, all of the by-products excepting ammonium sulphate being profitably used in the Ford factories.

Space will not permit my going into detail about all that I saw, so I have done my best to touch on the ones I felt of greatest interest and tried to give you at least a small idea of this huge industry centered at Detroit with branches all over the world, capitalized at \$100,000,000 and employing nearly 200,000 people. I hope I have succeeded.

## FERTILIZER FOR POTATOES

(Continued from Page 19)

legumes such as alfalfa, sweet clover, etc., it is necessary that the soil be in an alkaline or sweet condition, therefore, lime should be applied. It is important, however, that the lime be applied to the alfalfa or sweet clover seed and not applied shortly before the potatoes are planted. If this caution is not taken results may be a crop of scabby potatoes since lime causes the potato scab organisms to develop rapidly in this soil where it is already present.—H. C. Moore, Extension Specialist, M. S. C.

## White Diarrhea

### Remarkable Experience of Mrs. C. M. Bradshaw in Preventing White Diarrhea

The following letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Bradshaw tell of her experience in her own words:

"Dear Sir: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 527, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

### Cause of White Diarrhea

White Diarrhea (Coccidiosis) is caused by a protozoal organism of microscopic size which multiplies with great rapidity in the intestines of diseased birds and enormous numbers are discharged with the droppings. Readers are warned to beware of White Diarrhea. Don't wait until it kills half your chicks. Take the "stitch in time that saves nine." Remember, there is scarcely a hatch without some infected chicks. Don't let these few infect your entire flock. Prevent it. Give Walko in all drinking water for the first two weeks and you won't lose one chick where you lost hundreds before. These letters prove it:

### Never Lost a Single Chick

Mrs. L. L. Tam, Burnetts Creek, Ind., writes: "I have lost my share of chicks from White Diarrhea. Finally I sent for two packages of Walko. I raised over 500 chicks and I never lost a single chick from White Diarrhea. Walko not only prevents White Diarrhea, but it gives the chicks strength and vigor; they develop quicker and feather earlier."

### Never Lost One After First Dose

Mrs. Ethel Rhoades, Shenandoah, Iowa, writes: "My first incubator chicks, when but a few days old, began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged with the chicken business. Finally, I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

### You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko (or \$1.00 for extra large box)—give it in all drinking water and watch results. You'll find you won't lose one chick where you lost dozens before. It's a positive fact. You run no risk. We guarantee to refund your money promptly if you don't find it the greatest little chick saver you ever used. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa stands back of our guarantee.

**WALKER REMEDY CO., Dept. 527,  
Waterloo, Iowa.**

Send me the [ ] 50c regular size (or [ ] \$1 economical large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to promptly refund my money if not satisfied in every way. I am enclosing 50c (or \$1.00). (P. O. money order, check or currency acceptable.)

Name .....

Town .....

State ..... R. F. D. ....

Mark (X) in square indicating size package wanted. Large package contains about two and one-third times as much as small.—(Adv.)



# Poultry Department

(We invite you to contribute your experience in raising poultry to this department. Questions relative to poultry will be cheerfully answered.)

## THE MICHIGAN TYPE COLONY HOUSE

WE are publishing in this issue plans for the Michigan type colony house, which Prof. J. A. Hannah, secretary-manager of the Michigan State Poultry Improvement Association and a member of the staff of the M. S. C. says is very satisfactory for Michigan conditions, being built on skids and easily moved from one place to another on the farm.

"This plan shows a 10 by 10 foot house, and we believe is self-explanatory," says Prof. Hannah. "The house would be more desirable if it was a little larger, 12 feet long the north and south way or even 14 feet, but a larger house is harder to move, and a 10 by 10 is about all that a good team of horses can manage."

"This house is seven feet at the front and five at the rear, with a door 30 inches by six feet, on the east end of the building. It will be noted that the siding is run vertically, and it has been our experience that matched flooring used as a siding, as shown in this plan, makes a lighter and more substantial house, than the horizontally sided houses. This gets away from a large part of the studding necessary with the horizontal siding."

"The muslin curtain screen in the front of the building can be lowered for more direct ventilation and the slide shown at the rear of the building is arranged to be opened in warm weather, which aids materially in keeping the temperature down in warm weather. The apron screens covered with one inch netting are designed to prevent chicks from crowding in the corners."

"This building can easily be converted as shown in the lower left-hand corner of the plan into small laying house for use in housing a small breeding pen of 15 or 20 birds, but when used for this purpose it should be double walled, using some good wall board material for the inside of the building, and this should be painted with crude creosote to prevent the birds from eating it."

## CLAM SHELLS FOR CHICKENS

I have 150 S. C. Leghorns, all hens, from 60 to 100 eggs daily. I would like to know if ground clam shells are good for them or if they take the place of oyster shells? Why do hens eat paper?—A. H., Baroda, Michigan.

CLAM shells will to some extent take the place of oyster shells, but I do not believe that clam shells have quite as high a lime content as oyster shells. Clam shells seem to be of a much harder texture, thus making it impossible for the bird to get the lime from the shell. I would not recommend the use of clam shells for good strong shelled eggs.

Hens eat paper because of a ra-

ther depraved appetite, there being something needed in their digestive system.—C. G. Card, Professor of Poultry Husbandry, M. S. C.

## MAKING EGG SHELLS FIRMER

I understand that poultrymen are feeding cod liver oil to their chickens this spring to make the shells firmer for hatching purposes. Will you please tell me the amount and how it is fed? Is there any special kind or is it the regular brand bought at a drug store?—M. A. G., Newago, Michigan.

IN regard to the feeding of hens to prevent soft shelled eggs, we would suggest that the mash contain from three to five per cent calcium carbonate, in the form of ground limestone or marl, marl being preferred if it can be obtained. We have found that oyster shell for heavy producing flocks does give a sufficient available lime content.—C. G. Card, Professor of Poultry Husbandry, M. S. C.

## SETTING TURKEY EGGS

I would like to know if the first laid turkey eggs are all right for hatching? I was told not to use them as they would not be fertile.—A. Subscriber, Marion, Mich.

I WOULD suggest setting the turkey eggs as soon as possible after they are laid, as the average hen turkey lays a comparatively small number of eggs, about eighteen to twenty-five eggs. You will find that the first eggs will hatch as well as any others, and one can not afford to lose them.—C. G. Card, Professor of Poultry Husbandry, Michigan State College.

## FEATHER PULLING

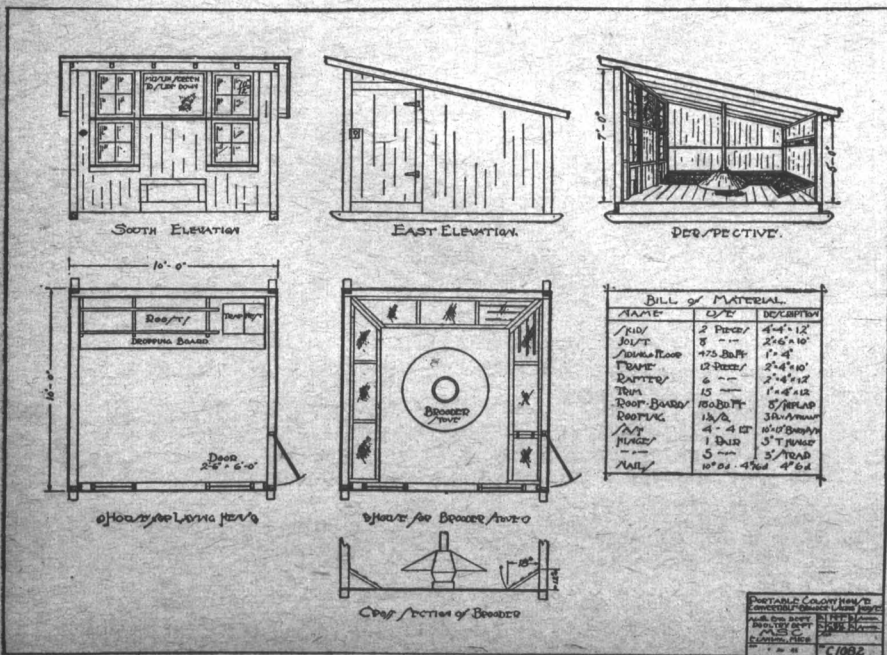
My chickens are pulling and eating feathers. Can you please tell me the cause and cure for this habit? It is for lack of something in their food.—Mrs. W. B. Coleman, Mich.

THIS is usually started by the birds craving something in their feed; after the habit is developed it is often difficult to stop. About 15 pounds of meat scraps, 5 pounds of bone meal and 5 pounds of oyster shells added to each 100 pounds of mash should overcome this in a short while.—Dr. Geo. H. Conn.

## BREED FOR CAPONS

Which is the best breed of chickens for capons?—C. P., Bloomingdale, Mich.

WE believe the Barred Plymouth Rock, White Plymouth Rock, and the Jersey Black Giant are very satisfactory. The Rock is particularly well adapted to caponizing, as it is large, rather lengthy breed, capable of carrying a great surplus of fat. The Jersey Black Giant has also proven very satisfactory for caponizing.—C. G. Card, Professor of Poultry Husbandry, M. S. C.



Michigan Type Colony House.

# PAN-A-CE-A

## prevents the back-sets

If you want early broilers—

If you want November layers—

You must avoid the back-sets in your growing flock.

Add Dr. Hess Poultry Pan-a-ce-a to the ration daily.

Then never mind about disease, bowel troubles, leg weakness and gapes.

Pan-a-ce-a takes care of all that.

Pan-a-ce-a tones up the appetite—promotes digestion.

Pan-a-ce-a helps your flock to turn the feed to good account—growth, bone, flesh, feathers.

You can tell a Pan-a-ce-a flock every time by the good feeling—always happy and industrious.

## Costs Little to Use Pan-a-ce-a

The price of just one two-pound broiler pays for all the Pan-a-ce-a 200 chicks will eat in sixty days.

Tell your dealer how many chicks you have. He has a right-sized package for every flock.

REMEMBER—When you buy any Dr. Hess product, our responsibility does not end until you are satisfied that your investment is a profitable one. Otherwise, return the empty container to your dealer and get your money back.

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Postpaid prices	25	50	100	500	1000
English White & S. & R. C. Brown Leghorns	\$3.75	\$7.00	\$13.00	\$62.00	\$120.00
Buff and Black Leghorns	3.75	7.00	13.00	62.00	120.00
Barred & White Rocks, R. I. Reds	4.25	8.00	15.00	72.00	140.00
Black Minorcas, Mottled Anconas	4.25	8.00	15.00	72.00	140.00
White Wyandottes, Buff Rocks	4.50	8.75	17.00	82.00	160.00
Mixed all Heavies, \$12.00 per 100					
Light Mixed, \$10.00 per 100					
Pekins, White & Fawn Runners, 25, \$7.50; 50, \$15.00; 100, \$30.00					

Quality goes ahead of price. Consider this when you place your order. No C. O. D. orders shipped. 10% will book your order. BANK REFERENCE. You cannot go wrong in ordering from this ad direct. CHICKS hatched from TRAPNEST LAYERS, 8c per Chick Higher than above prices. CHICKS hatched from BLUE RIBBON PENS, 5c per Chick higher. Write at once to-day.

Babion's Fruit & Poultry Farms, Lock Box 354, Flint, Michigan

# KEYSTONE HATCHERY

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50	100	500	1000	
Foreman Strain B. P. Rocks	\$9.50	\$18.00	\$85.00	\$165.00
Selected B. P. Rocks	8.00	15.00	70.00	135.00
Extra Selected R. C. or S. C. R. I. Reds	8.00	17.00	80.00	155.00
Selected R. C. or S. C. R. I. Reds	8.00	15.00	70.00	135.00
White Wyandottes	8.00	17.00	80.00	155.00
Tancred American S. C. W. Leghorns	7.50	14.00	65.00	125.00
Utility and English Barron S. C. W. Leghorns	6.50	12.00	55.00	105.00

All Heavy Chicks—odd lots, 50, \$8.50; 100, \$12.00; 500, 60.00. All Varieties 50, \$6.00; 100, \$11.00; 500, \$55.00. Order direct from this ad or get Catalog at once. Member I. B. C. A. which is your complete protection. 5% Discount allowed if full amount is sent with order.

LOOK OUR BIG HUSKY CHICKS ARE MONEY MAKERS. EVERY BREEDER carefully selected, tested and culled by experts. Can Ship at Once. Order direct from this ad. Save Time.

50	100	500	
White, Brown, Buff Leghorns, Heavy Mixed	\$9.50	\$12.50	\$60.00
Barred Rocks, Black Minorcas, R. I. Reds, (both combs)	7.75	15.00	72.50
White Buff Rocks and Wyandottes, Buff Orpingtons	7.50	16.00	77.50
White Orpingtons, Silver Wyandottes, White and Black Langshans	9.00	17.00	82.50
Light Weight Mixed \$5.50 per 50, \$10.00 per 100; Light Brahmas \$12.00 per 50, \$22.00 per 100.			
Sheppard's Anconas \$7.50 per 50, \$14.00 per 100. May chicks \$1.00 per 100 less. June chicks \$2.00 per 100 less. Send 25¢ with order. 100% live delivery guaranteed. Postage prepaid.			

If less than 100 ordered add 35¢ extra. Bank reference: G. R. National Bank. Hatching eggs. Free catalog. LAWRENCE HATCHERY, R. 7, Phone 76761. GRAND RAPIDS, MICHIGAN.



## MICHIGAN STATE ACCREDITED HATCHERIES

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"OUR CHICKS ARE MICHIGAN STATE ACCREDITED." Chicks that are hatched from free range breeders carefully selected. Our flocks and hatchery inspected and passed by representative of Michigan State College. Refer you to State Commercial Savings Bank. Order from this ad.

Prepaid prices on—	25	50	100	500	1000
S. C. Wh. and Br. Leghorns.....	\$4.00	\$7.00	\$13.00	\$62.50	\$120.00
S. C. & R. C. Rhode Island Reds.....	4.75	8.00	15.00	72.50	140.00
Bd. Rocks and S. C. R. I. Reds.....	4.75	8.00	15.00	72.50	140.00
Mixed Chicks \$10.00 per hundred					

10% down books your order. Free catalog. 100% Live delivery prepaid.  
HUNDERMAN BROS. R. R. No. 3, Box 55, ZEELAND, MICH.

## MICHIGAN STATE CERTIFIED CHICKS

FROM PEDIGREED, BLOOD TESTED, TRAPNESTED S. C. WHITE LEGHORNS.

Every bird in our flocks is Michigan State CERTIFIED, a step higher in the scale of good chicks than Accredited Stock. Write at once for your copy of the "Story of Sunrise Farm." Describes in detail our better flocks and chicks, and how you can make a big success with poultry. Copy FREE.

ROUTE 10,  
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## LAKEVIEW POULTRY FARMS

Buy Michigan State Accredited chicks from Lakeview. Official contest records. Every breeder inspected and passed by representatives of Michigan State College. 100% live delivery prepaid. Order from this ad.

White Leghorns (Tandred).....	\$3.75	\$7.00	\$13.00	\$62.00	Write for
Barred Rocks (Parks strain).....	4.25	8.00	15.00	72.00	Special
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Special Matings Higher. Mixed Chicks \$10.00 per 100. All heavies \$12.00.					

Free catalog tells all about Lakeview Chicks. Write today.  
LAKEVIEW POULTRY FARM, R. R. 8, Box 3, HOLLAND, MICHIGAN



## Buy Michigan State Accredited Chicks

From one of the founders of the chick industry 24 years in the business. An old reliable hatchery which has been putting out guaranteed chicks for years. Our flocks are the result of careful breeding and culling over a period of years. All our flocks have been state accredited and our Male Birds have been legbanded by the state. When seen our chicks recommend themselves. S. C. White Leghorns, Barred Rocks, Rhode Island Reds, Dr. L. E. Heasley Egg Basket Strain Buff Leghorns. Write for free catalog.

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**PLAY SAFE** Buy only from ACCREDITED FARMS. Our flocks are inspected and culled by authorized inspectors and approved by M. S. P. I. A. Chicks from heavy laying strains only. HILLCROFT FARM is not simply a Hatchery, but a Breeding Farm and when Better Chicks are to be hatched, we will hatch them. 100% Live Delivery Guaranteed—Prepaid prices

Laying Strains Barred Rocks, S. C. White Leghorns.....	\$4.00	\$7.50	\$14.00	\$67.00
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Order right from this ad in full confidence. Bank Reference or Dun Mercantile Agency. Send at once for "TRUTHFUL" CATALOG.	5.00	9.00	17.00	82.00

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on leading varieties of Michigan accredited chicks, pullets, cockerels and hens. Circular free. Member of I. B. C. Association.  
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What? Why, our market reports through WGHP. We're on the air at 7 o'clock, 'cept Saturday and Sunday.

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From pure-bred, heavy laying flocks. Inspected and culled by STATE INSPECTORS. PRIZE WINNERS. 1st and 2nd Cockerel and 6th Pullet. Second Best Display at Holland and Muskegon Shows.

TANCRED STRAIN WHITE LEGHORNS, BROWN LEGHORNS, BARRED ROCKS.

100% Live Delivery Postpaid 8c EACH AND UP.

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I've been in the Retail Drug Business for 20 years. I served four years as a member of the Indiana State Board of Pharmacy and five years as President of the Retail Druggists' Association. Nearly everyone in Fort Wayne knows me and knows about my successful treatment. Over Thirty-Five Thousand Men, Women and Children outside of Fort Wayne, have, according to their own statements, been cured by this treatment since I first made this offer public.

If you have Eczema, Itch, Salt Rheum, Tetter—never mind how bad—my treatment has cured the worst cases I ever saw—give me a chance to prove my claim.

Send me your name and address on the coupon below and get the trial treatment I want to send you FREE. The wonders accomplished in your own case will be proof.

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Please send without cost or obligation to me your Free Proof Treatment

Name \_\_\_\_\_ Age \_\_\_\_\_

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## Provide Sufficient Range For Your Poultry

By D. E. SPOTTS

(This is the fifth of a series of articles on poultry by Mr. D. E. Spotts.)

THE constant failure of chicks to grow into strong, healthy stock may be attributed to several factors: 1. Careless, improper brooding; 2. Poor foundation stock; 3. Improper incubation; 4. Improper feeding and lack of range. It is this problem of range that we wish to discuss at this time. A great many undesirable factors, such as rickets, leg-weakness, and worms may be attributed to too restricted quarters.

The first step in obtaining successful growth from chicks is to provide sufficient range in which to exercise. From the time the chicks are a few days old until they are placed in winter laying quarters nothing should be done that will check their growth, and one of the surest ways to do this is to keep the chicks on a small barren plot. Chicks that are allowed the freedom of an orchard, grain-field, or pasture lot will develop much faster and at the same time they are storing up material which will aid in maintaining health, strength, and vitality while they are in production.

Oftentimes there are conditions which will not afford the desired characteristics mentioned above, and where such conditions are prevalent it is necessary to limit the flock to meet the range area. Where there is no natural foliage, it becomes necessary to provide artificial shade.

This, although not as satisfactory as natural shade, is better than none at all. Artificial shade may be provided by the raising of colony houses 12 to 15 inches off the ground and allowing the chicks to run underneath; the spreading of burlap over wire netting or posts offers very good shade.

Besides the great amount of exercise that chicks receive, the food collected during the spring and summer amounts to a great deal to the grower in dollars and cents; also from a beneficial standpoint to the bird, insects, worms, and green feed furnish an almost ideal combination and, coupled with the grain that is fed, completes a nearly balanced ration.

In considering the young growing stock, the more freedom they have, especially over pasture lands or hay-fields, the more quickly will they grow and the more rugged will they be. In connection with this the assimilation of food will be much better, and this is a very desirable factor, especially with pullets that are being prepared for future layers. Where free range is possible it is not necessary to hatch chicks so early, as late-hatched chicks who from the start have been confined to small areas. During the spring and summer, if laying hens are allowed plenty of range they are not so apt to become overly fattened. This is due to the freedom of exercise and a more natural fowl production. Hens which become overly fattened will decrease in production. Such

would be the case when they are confined to close quarters, were not a great deal of attention given to the problem of feeding.

For the average farmer and his poultry, the best conditions under which to produce the greater profit would be plenty of spring, summer, and fall range for growing chicks with a poultry house that will furnish plenty of room, warmth, and protection from the weather. Other factors to combine with this would be good feed, exercise by being compelled to scratch among litter for their grain, and perfect cleanliness.

Overcrowded flocks will not only be poor layers, but will continually be picking combs, pulling feathers, quarreling, and eating eggs. Overcrowded conditions of young chicks will cause toe-picking, and cannibalism. A good thrifty flock of chicks or hens is an asset to any farm and is one thing of which any farm man or woman can be proud.

## RAISING TURKEYS

"I am a new beginner with turkeys and would like some advice about them. Can one expect to raise any from gobbler and hens in their first year? Should one let the breeders roost out-doors all winter long in all kinds of temperature and weather?—J. O., Imlay City, Mich.

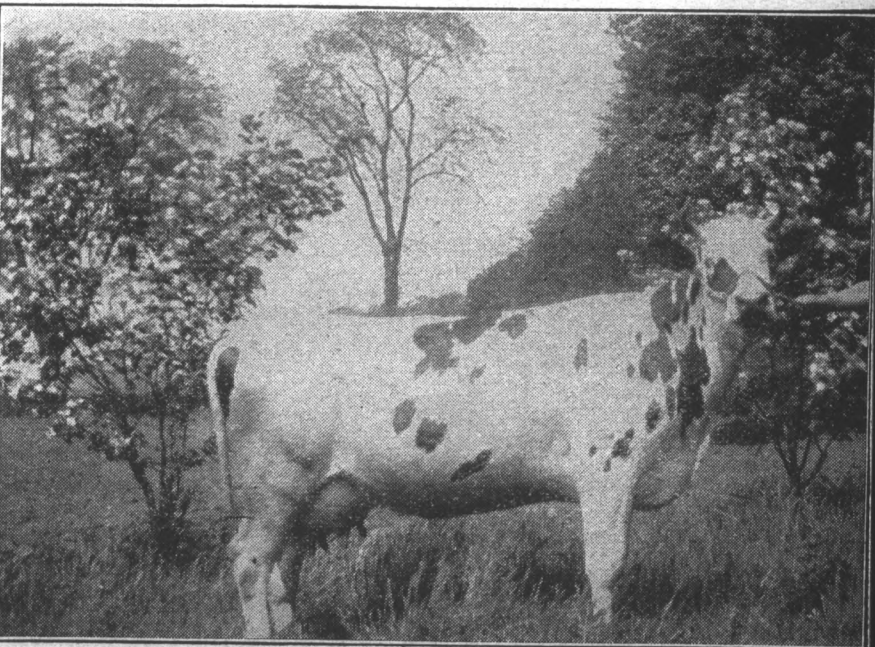
TURKEYS ordinarily breed satisfactorily the first season, and it is not necessary to keep them until the 2nd year before using them for breeding purposes as it is with geese.

Turkeys retained for breeders need not be kept in houses tightly constructed during the winter. They should have a shelter, roofed, and tight on three sides in which they may perch out of the winds and storms.—J. A. Hannah, Poultry Specialist, M. S. C.

## WEAK IN LEGS

We have a flock of Rhode Island Red chickens that have some disease. They seem to be paralyzed in their legs. Their combs are nice and red and their eyes are bright. We have been feeding them a dry mash in hoppers which is composed of 100 pounds corn, 100 pounds bran, 100 pounds oats, 100 pounds shorts. In the morning we feed them part oats and wheat and at night shelled corn. These hens that are infected are not thin. The fattest and nicest of the flock seem to be the most infected. Could you please tell us if there is a cure for this disease?—G. K., Ovid, Mich.

If you will add the following to your ration I think you will be able to overcome your trouble: 20 pounds of raw bone meal and 40 pounds of meat scraps; then feed buttermilk or skim milk to your flock. Use yellow corn in your mash.—Dr. Geo. H. Conn.



## A NEW SUPER-COW

This is Gladi Sylvia, queen of the Holstein-Friesian breed. She recently broke the world's record by producing 30,960 pounds of milk, containing 935 pounds of butter fat, in her two year old form—the only cow in the world to make such a record. She is owned by W. S. Brown, of Central Village, Connecticut.



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## An Accredited Chick Is A Better Chick

Every Michigan State Accredited Hatchery has had all its flocks individually inspected by the Michigan State College. All male birds have been individually leg banded with a State sealed and numbered leg band. Parent stock of all accredited Chicks is pure-bred and free from all major standard disqualifications. All breeders approved are true to type and color of parent stock. All with low vitality or disease have been removed.



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"Michigan State Accredited" in the advertising of Michigan Accredited Hatcheries is your guarantee of the truthfulness and reliability of the advertiser's statements.

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For a list of MICHIGAN STATE ACCREDITED HATCHERIES and further information, write

J. A. HANNAH, Secretary  
Mich. State College, East Lansing, Mich.

IN the Holland, Zeeland and Lansing State Poultry Shows, Rural birds again won many firsts. In the eyes of the judges, as in the opinions of hundreds of our customer friends, who buy from us year after year, Rural Chicks have FIRST Choice.



### Hollywood-Tancred Matings

260-290 Egg Foundation. Rural Pure-Bred Quality Chicks Cost Less to Raise and Pay Big Profits.

### Every Bird In Our Flocks Is Michigan State Accredited

FREE Catalog—fully descriptive and informative shows how you can have big success with RURAL Chicks. Send for copy today.

100% Live Delivery Guaranteed.

### The Rural Poultry Farm

Route 2, Dept. B, Zeeland, Michigan.

## CERTIFIED CHICKS

From Michigan State Accredited Stock. Egg Line business Bred White Leghorns Only. Our business breeding better Baby Chicks. As a result, two of our flocks are Michigan State CERTIFIED. Super Matings contains direct blood lines of 94 and 306-egg champions. Males are from hens with 200 to 292-egg records. Many sires closely related to Tancred's 330-egg hen. Free Catalogs all. Write for copy.

J. PATER & SON,  
F. D. No. 4, Box B, Hudsonville, Michigan.

## WOLVERINE S.C. WHITE LEGHORN BABY CHICKS

### MICHIGAN STATE ACCREDITED

BLOOD WILL TELL

100% SAFE ARRIVAL GUARANTEED



SOLD UP TO MAY 18th

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On all orders received before April 15th we will allow a special 10% discount from our quoted prices. Order quick and be assured of

### WOLVERINE QUALITY CHICKS

Bred For Size, Type and Egg Production Since 1910.

All breeders accredited by Michigan State College and Michigan Poultry Improvement Association. Don't buy any chicks until you have our new 1926 catalog explaining our matings in detail and how you can have greatest success with poultry. Write for copy, it's FREE.

WOLVERINE HATCHERY & FARMS

H. P. WIERSMA, Owner

ZEELAND, MICH.

## HOLLAND HATCHERY

It will pay you to investigate one of Michigan's oldest and best hatcheries. Eighteen years' experience. Every chick hatched from selected, rugged, free-range breeders. Officially passed by inspectors from Michigan State College. Absolute satisfaction in the hands of old customers necessitated increasing our capacity.

### S. C. White Leghorns

LARGE TYPE ENGLISH SPECIAL MATED AMERICAN

Anconas

### S. C. R. I. Reds

Barred Rocks

SEND FOR OUR FREE CATALOG.

Buy your Michigan State Accredited Chicks of an old reliable concern with an established reputation for square dealing. 100% live delivery prepaid. Get our valuable Free Catalog before placing your order.

VAN APPELDORN BROS. HOLLAND HATCHERY & POULTRY FARM, R7-B, Holland, Michigan.

## Wingarden Strain

TANCRED HOLLYWOOD BARRON WHITE LEGHORN BABY CHICKS  
MICHIGAN STATE ACCREDITED

Your success with poultry depends largely upon the quality of stock you select. Wingarden Chicks are from pure-bred, production type hens with many high egg records. FIVE of our hens laid 270 eggs at the 1925 Michigan International Egg Laying Contest. TEN birds 1924 Contest averaged 232 eggs and finished THIRD place. We also hatch Brown Leghorns and Anconas. FREE Catalog gives full information and tells why leading egg farmers choose Wingarden Strain Chicks. Send for copy.

WYNGARDEN FARMS & HATCHERY

Box B

Zeeland, Michigan

## BRED--TO--LAY BABY CHICKS

FROM MICH. STATE ACCREDITED FLOCKS

Every bird in our flocks has been inspected and approved by the Michigan State College and the Michigan Poultry Improvement Association. We are hatching this year, big, strong, pure-bred Chicks, better than we have ever hatched before. We hatch S. C. White and Brown Leghorns, Mottled Anconas, Black Minorcas and Barred Rocks. Orders are coming in now for delivery as late as May. Early orders mean better service. Send them now.

We Guarantee 100% Safe Arrival In Good Health.

Do not order elsewhere until you get our new 1926 Catalog, now ready. Write for FREE Copy.

MICHIGAN STATE ACCREDITED.

AMERICAN CHICK FARM,

Box B,

Zeeland, Mich.

## WASHTENAW Baby Chicks

PURE RED BABY CHICKS MICHIGAN ACCREDITED

We have not only selected our breeding stock and mated our birds for best results, but we have joined the Michigan Accredited Association. An inspector from the Agricultural College approves every bird. His work is for your protection and gives you the most up-to-date in baby chicks. Write for literature and price list. Our chicks cost no more and you can feel safe. 100% live delivery. Write today.

Get Our Illustrated Literature.

We have prepared a big, illustrated circular which tells all about our chicks. It is worth your while to get it if you expect to buy chicks.

PRICES Our prices are reasonable. Our chicks are good. Write today.

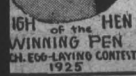
WASHTENAW HATCHERY, 2500 Geddes Road, ANN ARBOR, MICH.

## ROYAL EGG BRED LEGHORNS

CHICKS FROM CONTEST WINNING BLOOD LINES

Our white Leghorns won the 1925 Michigan Egg Contest. 1000 birds entered. Contest average 176 eggs per bird. Our pen average 241 per bird. Fifty sisters of these contest winners averaged 200 eggs per bird at home. Brothers and sons of these birds head the matings from which I will hatch this year. They are Michigan State accredited. In spite of increased demands for our chicks we have neither increased our capacity or prices. Write today for free circular that tells how you can secure chicks from these winning blood lines at moderate prices. "75% of our business is from old customers." You too, can join the list of satisfied users of this Royal strain.

ROYAL HATCHERY & FARMS, R. R. 2, Box B, ZEELAND, MICHIGAN.



HIGH OF THE HEN  
WINNING PEN  
CH. EGG-LAYING CONTEST  
1925



### Tancred and Tom Barron

## S.C. White Leghorn CHICKS

Michigan State Accredited Chicks Are Better Chicks.

All our flocks are individually inspected by the Michigan State College of Agriculture—individually leg-banded with state sealed and numbered leg band. This insures you highest quality.

150 Finest Tancred Males and Finest Large Tom Barron Males now head our flocks. Best blood lines in the country.

## REDUCED PRICES

50-\$6.50; 100-\$12.00; 500-\$57.50;  
1000-\$110.00.

Order Now. Satisfaction Guaranteed. Catalog free.

### KNOLL'S HATCHERY

R. R. 12, Box B, HOLLAND, MICH.

## SILVER WARD ACCREDITED CHICKS

BRED FROM SIRE'S OF HIGH PRODUCTION ANCESTRY

Barron White Leghorns from wonderful egg bred foundation stock; Tancred Leghorns; Sheppard's Famous Anconas from remarkable egg record foundation stock; Park's Bred to Lay Barred Rocks. Hundreds of letters testify to our customers' success. Reports show customers raising up to 95% of their chicks; pullets laying at 4 to 6 months of age; 734 flock production by pullets (raised from Silver Ward Chicks) in Sept. as compared with 89% production expected of good standard layers; prizes won in hot competition at shows. Every chick carries the breeding and ancestry necessary for success. Free booklet gives facts about breeding and results obtained with our chicks. Write for it now.

Silver Ward Hatchery, Box 30 Zeeland, Mich.

## BIG HUSKY CHICKS

Hatched Exclusively from MICHIGAN ACCREDITED FLOCKS. Inspected and Culled by State Inspectors.

ENGLISH, BARRON AND TANCRED STRAIN WHITE LEGHORNS. SHEPPARD STRAIN ANCONAS. BARRED ROCKS. RHODE ISLAND REDS. Assorted Mixed Chicks, \$10 PER 100 AND UP. Postpaid. Full Live Delivery Guaranteed. EARLY PULLETS. Back Reference. Get Circular and full price particulars.

WINSTROM HATCHERY, Box C-5, Zeeland, Mich.

## HIGHLAND LEGHORNS



EARLY LAYERS and PROFIT PAYERS.

Highland Poultry Farm, Box X, Holland, Michigan

### BRED-TO-LAY

Tancred—Hollywood—Barron Strains

Highland Leghorns are sturdy Northern Bred, and have many enviable winter egg laying records. Our breeding methods assure strong, vigorous chicks that grow rapidly and mature early. Nine out of Ten Highland Chicks will be shipped this season on orders from customers who buy from us year after year.

### SPECIAL PRICES AND EASY TERMS

Write today for your copy of our FREE Catalog and price list. Catalog illustrates Highland production matings, tells feeding methods and gives other valuable information.



MICH. STATE ACCREDITED.

## ENGLISH TYPE White Leghorns

### MICHIGAN STATE ACCREDITED

The Big, Deep Bodied Hens with Large Combs that Produce the Large White Eggs

Your success with poultry depends on your foundation stock. Start right. Our new 1926 FREE Catalog tells how and what to do to raise chicks profitably. Send for your copy before you buy any chicks.

### OTTAWA HATCHERY

Route 10, Box 42-B

Holland, Michigan.



One of our 200 EGG STRAIN LAYERS

## Downs Strain White Leghorns

have been bred for egg production for nineteen years. They are great winter layers. Many of Michigan's largest egg farms purchase their chicks from us each year. One reports 64% production in November from 775 pullets. Our flocks, hatchery and chick are all accredited by Mich. State Poultry Improvement Assn. and Mich. State College. Write for our free catalog today. Prices reasonable.

W. A. DOWNS POULTRY FARM, R.F.D. 2, Washington, Mich.

## UNUSUAL WHITE LEGHORNS

## Chicks a Specialty!

Michigan accredited chicks from flocks which have stood careful inspection. Our White Leghorn Cock Bird won 1st at Eastern Michigan Poultry Show, 1926 in both production and exhibition classes. We won first in pullet class.

Prices (Postpaid) On:

S. C. White Leghorns.....\$4.00 \$7.50 \$14.00 \$67.50 \$130.00

Barred Rocks, R. I. Reds.....4.25 8.00 15.00 72.50 140.00

Anconas and Black Minorcas.....4.50 8.50 16.00 77.50 150.00

Wh. Rocks, Wh. and S. L. Wyandottes.....4.50 8.50 16.00 77.50 150.00

Assorted Chicks \$12.00 per 100.

DEAN EGG FARM & HATCHERY, BOX D



BIRMINGHAM, MICHIGAN

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# MARKET FLASHES

## Grain Market Less Active Than Usual

Decline in Receipts of Cattle and Hogs Causes Prices to Advance

By W. W. FOOTE, Market Editor.

THERE is a rather general movement among farmers this spring to use extra care in the selection of their seed grains, and this is particularly true of seed corn, many farmers improving the opportunity by selling tested corn. As the season advances comparatively few farmers are willing to take their chances with untested seed corn, and owners of cribbed corn grading much above the general average have ready buyers at fancy prices. A short time ago a fortunate farmer of Iowa sold more than 90 bushels of seed corn in two counties of that state and had orders for much more. A short time since he tested a number of samples and found that about 90 per cent of it grew. Another Iowa farmer sold a 400-bushel corn crib, it showing a test of about 90. Recently the county agent of Tama County, Iowa, bought 400 bushels of Dallas County seed corn that cost from \$3.50 to \$6 a bushel and was guaranteed to test 92 per cent. Corn is the big grain crop of the country, and it cannot receive too much attention. Farmers are carrying unusually heavy stocks of merchantable corn, and this acts as a powerful incentive to start off another crop year right. Estimates of the corn acreage at this time are premature, but a combination of a good corn tract and enough hogs and sheep to consume it is hard to beat.

At the close of last year the Federal Land Banks and the Joint Stock Land Banks had together loaned to farmers a total of \$1,795,983,214 as shown by the annual report which was given a short time ago to Congress. The reports show that these two great systems have loaned to farmers numbering 463,510 amounts on farm mortgage loans which were about 15 per cent of all farmers having mortgage loans on their farms. The system was devised among other things to provide capital for agricultural development, to create a standard form of investment based upon farm mortgages, and to equalize rates of interest upon farm loans, and it has been of great service to agriculture.

### With Bulls and Bears

On the Chicago Board of Trade the volume of business has been much smaller of late than normal, with cash sales smaller than usual, while speculative trading was apt to lag at various times. Wheat, as usual, took the lead in sales, with late sales for July delivery around \$1.35, which was a few cents higher than a year ago, while a little more than two years ago it sold as low as \$1.02. The visible heat supply in this country is down to 33,000,000 bushels, comparing with 60,000,000 bushels a year ago, while Canada has a much greater supply than last year. Exports are limited most of the time, yet our visible stocks are rapidly declining. The bears rely mainly on the large yields of wheat which are expected in the southwest, a good crop of winter wheat being promised in Kansas, Oklahoma and Texas. Thus far very little new wheat has been purchased to arrive or sold for export. Durum wheat is in demand in this country, and hard wheat is much in demand in Canada. There have been heavy rain and snow storms, with unseasonably cold weather, and farmers are afraid there may be a late oat seeding. The grains, wheat alone excepted, are selling at very low prices, with late sales of May corn at 74 cents, comparing with 99 cents at this time last year. Seed corn is active at fancy prices, and down in Bloomington, Illinois, sales have been made as high as \$10 to \$12 per bushel. The visible corn supply is larger than it was last year. May rye sells at around 86 cents but ample. The rye visible is down to 13,715,000 bushels, comparing with 22,000,000 bushels last year. May rye sells at around 86 cents, comparing with \$1.14 a year

ago; and May oats at 41 cents, comparing with 39 cents last year.

### Slaughter of Diseased Cattle

A short time ago the city of Chicago adopted a new ordinance requiring all dairy cows to be inspected by the first of April if their milk is offered for sale. This has caused extensive slaughtering of cows that failed to show up as healthy, numerous cows failing to respond to the tuberculosis test. Owners of the condemned cows have been replacing them with cows costing about \$90 a head, and the average price paid to dairy farmers for the slaughtered cows is \$61, so that the farmers have to stand a loss of about \$29 for each cow, provided the new cow costs \$90. A short time ago a herd of 54 head of cows reached the Chicago stock yards from Wisconsin the average price of which was \$87 per head. They were purchased by

out the following statement on the cattle outlook:

"The Jewish holidays and Lent are over and the prospect for increased consumption of meat all over the United States is sure to reflect a better demand for all grades of live stock.

"Beef supplies are pretty well exhausted, due to blizzard conditions in most of the terminal markets of the United States. The buying power at Chicago will be able to take care of fairly liberal receipts of live stock through April and, as supplies of both cattle and hogs in the country are under normal, it would now look as if we had seen bottom, particularly on cattle, for some time to come."

### Advance in Pure-Bred Hogs

Substantial advances in prices for pure-bred hogs were recorded for all the leading breeds last year, is the report made by the Department of Agriculture, following the low point of the ruinous decline which lasted nearly five years. Unfortunately, it came so late that large numbers of breeders were forced

feeders at \$6.50 to \$8.75. Feeder and stocker steers declined as much as 25 cents because of the snow blockade. A year ago beef steers sold at \$7.75 to \$12.60.

### Hogs Sell Higher

Heavy falls of snow throughout the country placed an embargo on the movement of hogs to and from the Chicago market, and sharp advances in prices took place. Eastern shippers took a good share of the Chicago offerings and would have taken more had supplies been on a larger scale. The average weight of the hogs received in March was 247 pounds, the heaviest in over half a century for March, comparing with 228 pounds a year ago. Bad weather in central Illinois has been hard on pigs, and it is reported that farmers have suffered losses of from 50 to 75 per cent. More sows were bred to farrow this spring than last spring, however, and this is expected to equalize the loss.

Late sales were made of hogs at \$10.15 to \$13.85, comparing with \$11.75 to \$14 a year ago.

### WHEAT

Crop news seems to be the governing factor in the wheat market at present and as the growing crop is in better than average condition the outlook favors lower prices. Of course there may be a change over night that will give the future an entirely different appearance, but this is doubtful. Receipts are about the same as a year ago and dealers declare export demand at practically a standstill because of holidays abroad. Milling demand is also quiet.

### CORN

The closing days of last week's corn market was marked by heavy selling and which caused prices to break. Demand was only moderate. The trade seems to be having a lot of trouble with mixed corn and some look for still lower prices.

### OATS

The oat market was a little weak in sympathy with wheat last week but there was plenty of buyers whenever prices went down so prices held within a narrow range. Receipts last week were about the same as a year ago, with country offerings to arrive light.

### RYE

Rye seemed to act independent of other grains during the last couple of weeks and as a result prices are slightly higher than quoted in our last issue.

### BEANS

It is interesting to note the price of beans has advanced 5 cents since our last issue but the trade appears to be afraid to buy many for fear of getting a delivery made up mostly of wet beans. They claim it is almost impossible to handle beans of high moisture content during warm weather. Of course, there is the possibility of working the wet bean idea beyond the limit should anyone care to as growers are not organized or in any position to do anything about it.

### POTATOES

The heavy snow of last week helped the potato market by putting it back on a firm basis from which it appeared to be slipping. Of the market the U. S. Department of Agriculture says:

The general potato position was hardly ever so strong. Good demand, light supplies in consuming regions, few imports coming or in sight, and the new crop late or coming slowly, are all features supporting the market. The main question is just how many potatoes are left in the great shipping regions, chiefly at present the northern Great Lakes region, Maine, and the Northwest. Perhaps 15 or 20 thousand cars more are to come judging merely from the late movement in other short crop seasons. Prices passed the \$5 line in city markets some time ago. The market is as high as in the farm shortage spring of 1917,

### M. B. F. MARKET REPORTS BY RADIO

EVERY evening, except Saturday and Sunday, at 7 o'clock, eastern standard time, the Michigan Business Farmer broadcasts market information and news of interest to farmers through radio station WGHP of Detroit. This station operates on a wave length of 270 meters.

three farmers who had pooled their interests to make the deal and made their own selections, thereby avoiding the dealer's commission charges. A leading federal veterinarian says he cannot too strongly advise farmers against buying dairy cattle from the stock yards, even if the price seems low—perhaps \$80. He points out that too often cattle bought in the Chicago stock yards are found after sixty days on a farm to react positively to the tuberculosis test, and they must then be condemned for slaughter, the farmer losing a second time. Dr. Lintner, federal veterinarian at the Chicago stock yards, says: "State officials of Michigan and Wisconsin gladly will give information to farmers as to where the best cattle can be purchased. B. J. Killen, state veterinarian at Lansing, Michigan, and John D. Jones, Jr., commissioner at Madison, Wisconsin are the officials to whom applications should be made."

### Good Prospects for Cattle

Everett C. Brown, president of the Chicago Live Stock Exchange, gave

out of business. Prices received seem to indicate that in 1925 demand centered chiefly on bred cows. The 2,522 bred sows reported sold averaged from \$45 to \$59 per head, which was an advance of \$9 to \$19 per head over 1924, but in three of the five breeds considered, was lower than the averages reported in 1923.

The 690 sows not bred averaged from \$35 to \$47 per head, which represented advances of from \$1 to \$15 per head over 1924 prices and with the exception of one breed, were considerably higher than those of 1923.

### Cattle Scarce and Higher

Recent heavy snow storms prevented a normal movement of live stock, and cattle were in such meager supply in the Chicago market that prices were advanced 25 to 50 cents for desirable kinds, while common lots sold as much as 25 cents lower. Beef steers sold at \$7.50 to \$10.85, the bulk going at \$8.50 to \$10.25, while the best heifers sold for \$6 to \$10 and stockers and

### THE BUSINESS FARMER'S MARKET SUMMARY and Comparison with Markets Two Weeks Ago and One Year Ago

	Detroit April 7	Chicago April 7	Detroit March 23	Detroit 1 yr. ago
<b>WHEAT—</b>				
No. 2 Red	\$1.72		\$1.69	\$1.69
No. 2 White	1.73		1.70	1.67
No. 2 Mixed	1.72		1.69	1.67
<b>CORN—</b>				
No. 3 Yellow	.74	.70 @ .71 1/2	.74	1.00
No. 4 Yellow	.69		.69	1.05
<b>OATS—</b>				
No. 2 White	.46	.41 @ .42 3/4	.44	.50
No. 3 White	.45	.40 @ .42 1/4	.43	.49
<b>RYE—</b>				
Cash No. 2	.87		.84	1.18
<b>BEANS—</b>				
C. H. P. Cwt.	4.15		4.15 @ 4.20	5.30 @ 5.40
<b>POTATOES—</b>				
New, Per Cwt.	4.70 @ 4.83	4.40 @ 5.10	4.30 @ 4.40	.93 @ .96
<b>HAY—</b>				
No. 1 Tim.	23.50 @ 24	23 @ 25	22.50 @ 23	16 @ 16.50
No. 2 Tim.	21 @ 22	19 @ 22	20 @ 21	14 @ 15
No. 1 Clover	20 @ 21	21 @ 23	20 @ 21	13 @ 14
Light Mixed	22 @ 23	23 @ 25	21 @ 22	15.50 @ 16

Wednesday, April 7.—Wheat and corn easy. Oats unchanged. Potatoes in demand. Butter and eggs easy.



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**MICHIGAN BUSINESS FARMER,**  
Mt. Clemens, Michigan.

## HELP WANTED

BECOME YOUR HOME TOWN'S LEADING business man. Big money. Easy work. Selling groceries, coffee, canned goods, auto oils, men's shirts, ladies' hosiery direct to consumer. Under-sell Competition. Commission advanced. Liberal credit plan. No experience or capital necessary. Lovern & Browne Co., 1785 So. State, Chicago.

GIVE AWAY FINEST LAUNDRY SOAP FREE. You'll make \$10 daily easy by new selling plan. Big repeat business. Write quick. Wolverine Soap Co., 35 Wolverine Bldg., Grand Rapids, Mich.

## FARM LANDS

FOR SALE OR EXCHANGE, 120 ACRE FARM. 34 miles from Detroit; thoroughly equipped with up-to-date machinery; tractor, large herd live stock; modern buildings; 3000 chickens. Price \$75,000. 910 Majestic Building, Detroit, Michigan.

## SEEDS AND PLANTS

FIVE TWO YEAR BRIDAL WREATH \$1 delivered. Or 4 home-grown apple trees, best. 3-4 ft. same. Account rented ground. Gobles Nurseries, Gobles, Michigan.

CERTIFIED SEED GRAIN, FROM LATEST improved strains of highest yielding varieties under Michigan conditions. Wolverine oats. Robust beans. Two to twenty bushels clean, heavy treated certified oats all ready to drill, one dollar per bushel. Over twenty bushels, ninety cents F. O. B. Bags are free. In bulk at farm, eighty cents. 1926 seed circular yours on request. A. B. Cook, Owosso, Michigan.

GRIMM ALFALFA SEED \$19.88 BUSHEL. Fancy alfalfa seed \$15. Timothy, alsike, red clover, white sweet clover seeds. Write for price list. Some blackeye white cowpeas. Z. T. Nichols & Sons, Lawton, Michigan.

HAY, ALFALFA, CLOVER, TIMOTHY AND mixed, delivered prices. Harry D. Gates Company, Jackson, Michigan.

MANCHEE SOYBEANS. SEND FOR SAMPLES. R. Mittersbough, Coldwater, Michigan. R. 3.

FOR SALE—FRESH DUG AND TRIMMED plants. Dunlap Strawberry \$4.00 per 1000. 6 other varieties. Cuthbert and Early King Red Raspberry, \$15.00 per 1000; Cumberland Black Raspberry, \$12.00 per 1000. Lucetta Dewberry, \$12.00 per 1000. Fred Stanley, Bangor, Mich.

FOR SALE: INSPECTED CUTHBERT RED raspberry plants, at reduced prices. \$1.50 per 100, postpaid. \$12.50 per thousand F. O. B. St. Johns. Tony Mott, R. 1, St. Johns, Mich.

CHOICE GLADIOLA. NOT LABELED. 100-1 inch and up, all colors. \$2.00; 150 3/4 inch and up, all colors, \$2.00; 15 choice Dahlias, 5 colors, \$2.00, any two for \$3.50; or all three \$5.00. Prepaid. With good care they should all bloom. L. L. Milarch, Box 52, Copemish, Michigan.

DAHLIAS, 12 ASSORTED DOUBLE 85c. GLADIOLAS, 15 large assorted 25c. 50 blooming size 25c. 250 bulbs 25c. Postpaid. John Nelson, R. 1, Cadillac, Michigan.

## TOBACCO

HOMESPUN TOBACCO: CHEWING. FIVE pounds \$1.50; ten \$2.50. Smoking ten \$1.50. Pay when received. Satisfaction guaranteed. United Farmers, Bardwell, Kentucky.

KENTUCKY'S BEST LEAF TOBACCO. GUARANTEED. 3 lbs. chewing \$1.00; 4 lbs. best smoking \$1.00; 6 lbs. medium smoking \$1.00. Pay for tobacco and postage when received. Co-Operative Tobacco Growers, Hawesville, Ky.

HOMESPUN TOBACCO: CHEWING FIVE LBS. \$1.50; ten \$2.50; smoking 5 lbs. \$1.25; ten \$2.00. Cigar, 50 for \$2.00. Pay when received. Farmers Association, Maxon Mills, Ky.

KENTUCKY HOMESPUN SMOKING—5 pounds \$1.00; Chewing 4 pounds \$1.00. Postpaid. Clements and Wettstein, Chambers, Ky.

## MISCELLANEOUS

FOR SALE—OLD ESTABLISHED FARM implement and hardware store. Doing good business. Will reduce stock to suit purchaser and sell or rent buildings. College town in good farming section. Other business calls owner away. Box 245, Care The Business Farmer.

BARREL LOTS SLIGHTLY DAMAGED CROCKERY, Hotel Chinaware, Crockeryware, Glassware, etc. Shipped direct from factory to consumer. Write for particulars. E. Swaney & Co. Portland, Maine.

BUY FENCE POSTS DIRECT FROM FOREST. Car lot prices. Delivered to your station. Address M. M. care Michigan Business Farmer.

IF WE GIVE YOU SHOES MADE-TO-YOUR measure in any one 60 leathers, 50 different styles, will you keep them, wear them, show them to your friends as samples of our \$10 Made-To-Order shoes to sell at \$6.85? Advise us today. Your complete outfit will go forward absolutely free at once. Dept. 8092, Tailor-Made Shoe System, 932 Wrightwood Ave., Chicago.

FOR SALE, STEAM THRESHER, 28 x 48. Case steel separator. Wind stacker. P. R. T. engine 18 horsepower. Wilmer McIntyre, Mesick, Michigan.

YOUR BARREN COWS CAN BE MADE "Safe with Calf" or money refunded. Remedy \$2. Booklet Free. Breed-O Remedy Co., Box E, Bristol, Conn.

CASH PAID FOR FALSE TEETH, PLATINUM, old magneto points, discarded jewelry and old gold. Mail to: Hoke Smelting & Refining Co., Chicago, Michigan.

GOOD PRINTING REASONABLE. ESTIMATES cheerfully furnished. Terry Printery, Imlay City, Mich.

FOR SALE OR EXCHANGE, GOOD 240-EGG incubator. Frank Dickinson, Springport, Mich.

ELIJAH COMING BEFORE CHRIST. FREE book. B. Megide Mission, Rochester, N. Y.

but not yet up to the level of April or May, 1920. It is a great market season for potatoes. At \$1200 per carload, the shipments will be worth \$225,000,000 besides almost as many more sold in local markets.

## LIVESTOCK MARKETS

DETROIT.—Cattle—Market steady but slow. Good to choice yearlings, dry fed, \$9.50@10.25; best heavy steers, dry fed, \$8.25@8.50; best handy-weight butcher steers, \$7.25@8.50; mixed steers and heifers, \$7.50@8.25; handy light butchers, \$6.25@7.25; light butchers, \$5.75@6; best cows, \$6.25@7; butcher cow, \$4.75@5.75; common cows, \$4@4.50; canners, \$3@4; choice light bulls, \$5.50@6.50; heavy bulls, \$4.50@6; feeders, \$6.50@7.75; stockers, \$6@7.25; milkers and springers, \$45@80.

Veal Calves—Market steady. Best, \$14@14.50; others, \$7@13.50.

Sheep and Lambs—Market lower. Best wool lambs, \$13.50@14; fair lambs, \$12.50@12.75; light to common lambs, \$10.25@11.50; clipped lambs, \$11; fair to good sheep, \$7@8.50; culls and common, \$3@5.

Hogs—Market—Prospects slow. Mixed hogs, \$13.

CHICAGO.—(U. S. Department of Agriculture).—Hogs—Bulk, 250 to 350-pound butchers, \$11.25@12.15; majority, 200 to 225-pound weight, \$12.50@13; desirable 180 pounds down, largely \$13.25@13.75; top on 140 to 160-pound averages, \$13.85; killing pigs, \$14; packing sows, \$10.40@10.75; shippers, 2,500; estimated hold-over, 1,000; heavy weight hogs, \$11.20@12.25; medium, \$11.50@13.25; light \$12.40@13.85; light lights, \$12.50@13.85; packing sows, \$10.40@10.90; slaughter pigs, \$13.50@14.

EAST BUFFALO.—Cattle—Dull and steady; shipping steers, \$8.50@10; butchers, \$6@9.50; yearlings, \$9@10.50; heifers, \$4.75@9; fair to choice cows, \$4@7.25; canners and cutters, \$2.25@4; bulls, \$4@6.75; stockers and feeders, \$4.50@7.50; fresh cows and springers, active and steady, \$40@120. Calves—Slow and steady; choice, \$13.50@14; fair to good, \$12@13; culls, \$8@11.50; heavy, \$6@9; grassers, \$4@6. Hogs—Slow and steady to 25c lower; heavy, \$12@12.75; mixed, \$13.25@13.75; yorkers, \$13.75@14; light yorkers and pigs, \$14.25; roughs, \$10.75; stags, \$7@8.50. Sheep and Lambs—Steady and slow; lambs, \$9@14.25; yearlings, \$9@12; wethers, \$9.50@10; ewes, \$3@9; mixed sheep, \$9@9.50.



Week of April 11.

TEMPERATURES will be rising at beginning of this week followed Monday or Tuesday with increasing cloudiness, rain and snow. The wind forces during this storm will also be intense in many parts of the state.

Weather changes are not expected to be rapid or many during this week in Michigan. Storminess is expected to hang on more or less until about the middle of the week. Im-

Want to tell you I enjoy The Business Farmer most of all farm papers. I think the weather report alone worth the price.—Mrs. E. S., Monroe County.

mediately following this storm temperatures will drop rapidly and the balance of the week excluding Saturday is expected to be generally fair.

On the last day of the week storminess will again increase with the probabilities of some very heavy, local rains or snows accompanied with strong winds.

Week of April 18.

Severe storminess of last week will run into this week with high winds, rain, sleet or snow. These conditions will continue over Monday or Tuesday followed by sudden change to colder.

Following a very brief respite from storminess the Michigan sky will again cloud over and for the balance of the week will remain more or less unsettled with variable temperatures but mostly above the seasonal normal. Electrical storms are also probable and some high gales.

This will not be a time to rejoice in the coming of spring, however, no matter how much it may seem like it. We give this bit of gloomy warning because we see a change to sudden cold immediately following this storm area and it will probably hit this state about Sunday of next week.

This week ends with high gales to west and northwest.



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QUERN ACCREDITED CHICKS. OFFICIALLY approved by the State of Michigan. Every breeder passed by inspectors. Our accredited Leghorns represent 12 years of careful breeding. Tancred Hollywood S. C. White Leghorns, Brown, R. C. Reds. Ask for prices and circular free. Queen Hatchery, Zeeland, Michigan.

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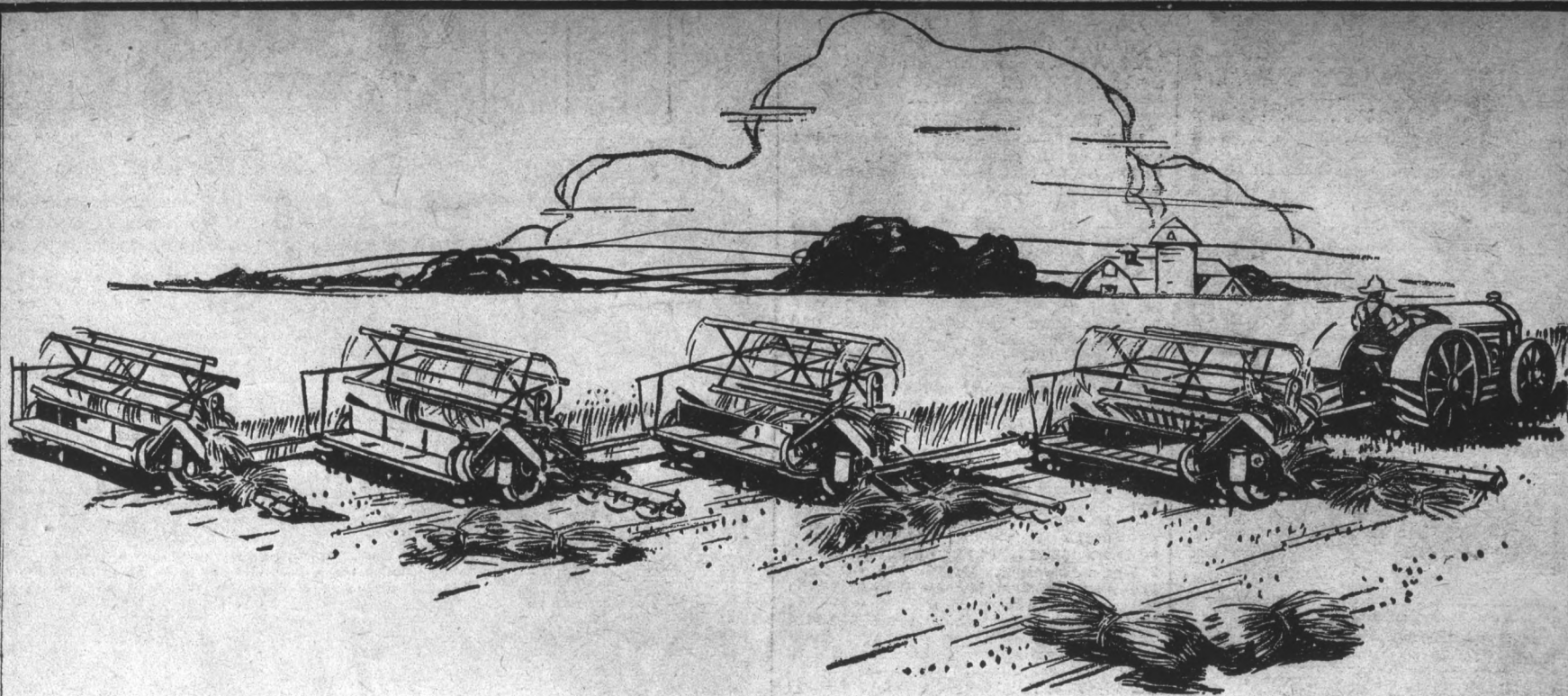
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# Polarine

THE PERFECT MOTOR OIL

## Stays on the Job

A farmer, facing the problem of harvesting his wheat which already was over-ripe, picked up four likely looking men who said they wanted work.

He drove them home, relieved at the thought that his crop was safe and that evening set them down to a hearty dinner. The next morning when he was ready to start for the field they appeared in their city clothes and said they thought they would go back to town.

The dismayed farmer asked them if they were dissatisfied for any reason. No, they said, they liked the place all right, but they had decided they didn't want to work after all.

Some lubricating oils are like that. They look all right. They get all ready for work, covering metal surfaces with a thin protective film. Then when the time comes to *do* their work, they quit on the job. They break under the strain of heat and friction.

The consequences of their failure are serious. Metal surfaces come together, dirt and grit do their grinding work of destruction, and vital parts of the engine are gradually eaten away.

To find an oil that will not quit on the job is one of the farmer's most important problems.

The Standard Oil Company (Indiana) recommends Polarine. Its lubricating staff has solved this problem for the farmer, after years of experimenting with every make of tractor under every possible temperature condition.

Polarine—the perfect motor oil for tractors, is made to fit the needs of each type. It protects metal surfaces with a film of oil that never breaks down—no matter what the conditions. A machine lubricated with Polarine runs smoothly and lasts long. The farmer knows that he can depend on Polarine, as he can depend on all the products of the Standard Oil Company (Indiana).

*Consult chart for correct grade of Polarine for your motor. Change your oil frequently.*

**Standard Oil Company**  
910 S. Michigan Ave. (Indiana) Chicago, Illinois

### Tractor Chart of Recommendations

#### TRACTORS

Trade Name	Motor Oil	Trade Name	Motor Oil
Advance-Rumely		Keck Gonnerman	S.H.
Oil Pull	E.H.	LaCrosse	E.H.
Allis Chalmers 15-25, 20-35	S.H.	Lauson	S.H.
Allwork	S.H.	Little Giant	S.H.
Appleton	S.H.	Lombard	S.H.
Aro	H.	McCormick-Deering	H.
Bates, Steel Mule and others	S.H.	Mead Morrison	S.H.
Capital	E.H.	Minneapolis	E.H.
Case, 12-20, 15-27, 18-32	H.	Moline	S.H.
Case, 22-40, 40-72, 25-45	S.H.	Monarch	S.H.
Caterpillar, 2 ton	H.	Nichols & Shepard	E.H.
Caterpillar, others	E.H.	Nilson	S.H.
Centaur	H.	Pioneer	E.H.
Cletrac	S.H.	Rock Island Heider	S.H.
Cultor	F.	Russell, (except Giant)	S.H.
Eagle	E.H.	Shawnee	H.
E. B.	S.H.	Tioga	H.
Fitch Four Drive	S.H.	Topp-Stewart	S.H.
Flour City	E.H.	Toro	H.
Fordson	S.H.	Townsend	E.H.
Frick	S.H.	Traylor	H.
Gray	S.H.	Twin City, (except 40-65)	S.H.
Hart Parr	E.H.	Wallis	S.H.
Huber	S.H.	Waterloo Boy	S.H.
J. T.	S.H.	Wetmore	S.H.
John Deere	S.H.	Wisconsin	S.H.
		Yuba Ball Tread	S.H.

#### GARDEN TRACTORS

Trade Name	Motor Oil	Trade Name	Motor Oil
Acme	H.	N. B.	H.
Aro	H.	Red E.	H.
Beeman	H.	Shaw	H.
Bolens	H.	Spray-Mor	S.H.
Bready	H.	Spry Wheel	H.
Centaur	H.	Standard	H.
Clip Mor	S.H.	Utilitor	H.
Do-It-All	S.H.		
Federal	H.		
Gilson	H.		
Gro-Mor	H.		
Gro-Mor Jr.	S.H.		
Gravely	H.		
Kin Kade	H.		

#### KEY

H.—Polarine Heavy  
S.H.—Polarine Special Heavy  
E.H.—Polarine Extra Heavy  
F.—Polarine F

If tractor is operated in cold weather, use next lighter grade.

N. B.—For recommendations of grades of Polarine to use in automobiles and trucks consult chart at any Standard Oil Company (Indiana) Station.