

MICHIGAN FARMER

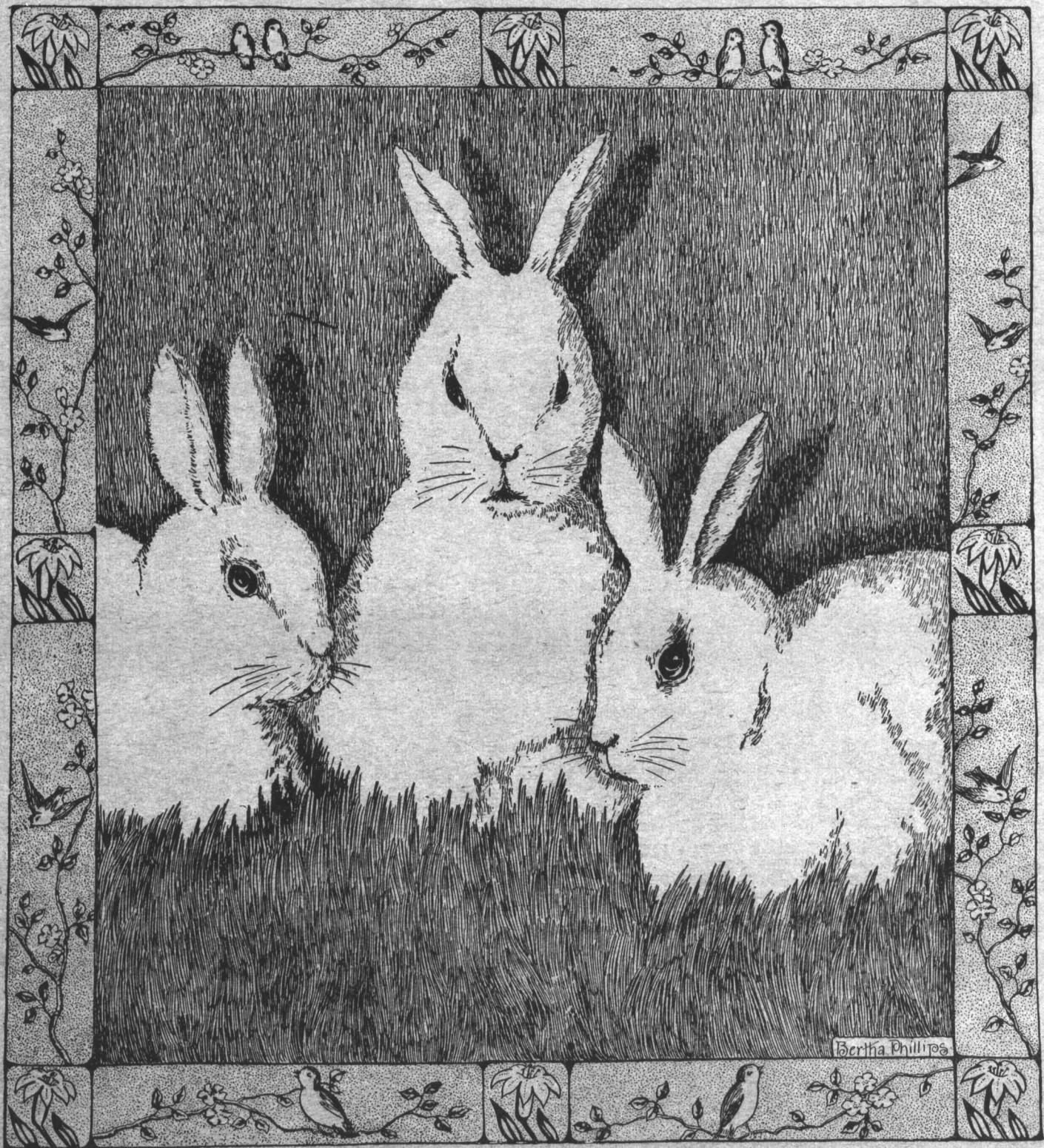
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DETROIT, MICH., SATURDAY, APRIL 16, 1927

Whole No. 4755





Many farm women, too, now have electric laundries.

Rural electrification — a fact on more than 260,000 farms

AS the result of cooperative investigation carried on in twenty states, electric light and power companies are now building rural lines as fast as circumstances will permit.

On 260,000 farms rural electric service is in successful operation today.

The same force which has done so much for industry will soon be available to an increasing number of farms. The resources and experience of more than forty years of successful city service are back of this movement to bring the farmer the greatest practical help he has ever had.

With the desire to make full

use of all the benefits of electric service, and with the development of new equipment, rural electrification will open a new era on the farm.

Rural lines cannot be built everywhere at once, but the light and power companies are ready to extend service to groups of farmers, which together, can use sufficient power to justify the building and maintaining of rural lines.

Rural electrification can come quickly—where farmers and the light and power companies work together for the same good end. Ask your power company for information and cooperation.

The Committee on Relation of Electricity to Agriculture is composed of economists and engineers representing the U. S. Departments of Agriculture, Commerce and the Interior, American Farm Bureau Federation, National Grange, American Society of Agricultural Engineers, Individual Plant Manufacturers, General Federation of Women's Clubs, American Home Economics Association, National Association of Farm Equipment Manufacturers, and the National Electric Light Association.

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AMERICAN APPLES SENT ABROAD.

THE big apple crop in the United States last year is held responsible for an increase of \$11,000,000 in the value of exports of fresh fruit from this country over the 1925 crop exports. The value of boxed apple exports in 1926 was \$15,431,357, as compared with \$12,787,495 in 1925, while shipments of apples in barrels increased to \$15,042,669 from the 1925 total of \$8,275,589. The exports of all fresh fruits from the United States during 1926 amounted to \$53,000,000, compared with \$24,000,000 in 1922.

SAY COCOA CAKE HARMFUL TO STOCK.

A RECENT bulletin from the U. S. Department of Agriculture reports that tests on the feeding of cocoa cake show that it depresses the milk flow of dairy cattle. Caution should be observed in feeding cocoa product to animals, especially to non-ruminants. The alkaloids of the shells are said to have been responsible for the death of a number of animals fed on this product.

INCREASE LABOR ALLOWANCE ON SWEET CORN.

IN the preliminary arrangement governing the distribution of the ten million dollars in the corn borer clean-up, one dollar per acre was allowed in the clean-up of the fields where sweet corn had been grown. This amount has been since raised to two dollars per acre, the same as for field corn.

According to one student of agricultural history, it has taken 3,000 years to develop our present idea of crop rotation. Now what shall we do next?

Uncle Pete reflects, and then remarks, what a blow this international clean-up program must be to the personal liberty of the corn borer.

SUGAR CROP INCREASES.

AN increase in acreage of world sugar crops in 1927-28, is indicated by reports to the bureau of agricultural economics. Estimates for the 1926-27 crop indicate a production of 26,234,000 short tons, which is considerably larger than the crops a few years back, but below the record crop of 27,715,000 short tons last year and 26,755,000 tons in 1924-25.

World trade in sugar has nearly doubled since the war, and consumption of sugar in Europe and America is keeping pace with the largely increased production.

The European sugar beet acreage this year is expected to show an increase of about ten per cent over that of last year. All European countries excepting Rumania and Poland are planning for larger beet sugar production than last year.

MISQUOTED ON BOVINE TUBERCULOSIS WORK.

FALSE and misleading propaganda is being broadcasted in the middle west against the government's bovine tuberculosis eradication campaign, according to Dr. John R. Mohler, chief of the bureau of animal industry.

One statement is being made to the effect that Dr. Mohler has said that tuberculosis is spreading faster than ever before. This Doctor Mohler denies, as tuberculosis has declined in the United States in the last few years from more than four per cent to about 2.8 per cent.

Dr. Mohler says that another statement credited to him, asserting that the tuberculin test may spread tuberculosis is also untrue. On the contrary, the disease is rapidly being

eradicated and the tuberculin test is the diagnosis agent by which eradication is being accomplished.

"In general," says Dr. Mohler, "public sentiment toward the eradication of tuberculosis in recent years has been most favorable. The press, radio stations, and public speakers, with few exceptions, have warmly supported that important branch of public service, which is a factor in public health as well as a benefit to the live stock industry."

News of the Week

The West Virginia house of delegates recently passed a bill making the daily reading of the Bible compulsory in the public schools of the state.

Twenty-one foreign battle ships are near Hankow, the Chinese nationalist capitol, as recently the Chinese authorities violated their treaty by searching private-owned Russian property.

A group of men in the laboratories of the Bell Telephone Company in New York, saw and heard Secretary Hoover make a speech in Washington through the new television equipment.

Leigh J. Young, the newly appointed head of the state conservation department, said that all his appointments will be made on the basis of civil service examinations.

The big egg-freezing plants in Hankow and Nanking have been closed by the Chinese agricultural commissioner, because of the Chinese civil war.

"Big Bill" Thompson, former mayor of Chicago, was elected to that office again by a large majority over the present mayor, William Dever, democrat. Thompson is anti-prohibitionist.

Due to the threatened boycott by the retail merchants of Detroit and other places, the Ford Motor Company will close its retail stores to the general public after April 18. These stores were selling groceries, drugs, shoes, notions, meats, paints, lumber, etc.

Investors in United States securities are careless, for they have failed to collect \$35,000,000 of interest due them on Liberty Bonds.

Although the executive mansion is closed, President and Mrs. Coolidge will be hosts to the Washington children at the annual Easter egg rolling on the White House lawn. Last year 40,000 people attended the event.

The Sapiro-Ford case continues to make slow progress in the Detroit court. Sapiro has been cross-examined and Ford is due to be soon.

The national assembly in Norway abolished prohibition when it passed a bill removing restrictions on the sale of liquor.

Rabid coyotes, dogs and other farm animals have terrorized farmers in Bear Valley, Oregon, who have asked government help to exterminate rabid animals.

The U. S. good-will fliers have left the main land of South America to visit the island of Trinidad.

The export of American automobiles is steadily increasing. In February there was a 7.2 per cent increase over the same month last year.

Forty-six years ago, Wm. English, of Wichita, Kansas, scratched his initials on a half dollar. It recently came back to him in Watertown, New York, in change at a gas filling station.

Mussolini, the Italian premier, has issued strict regulations regarding dancing, and has virtually declared war on night clubs.

In 1908 John Krubsack, a Wisconsin farmer, planted twenty-eight box elders, according to a definite plan. By careful training and grafting he grew these into a usable chair, which he now values at \$4,000, and which is being exhibited throughout the country.

Since the University of Illinois has denied the students the privilege of using autos, the students have taken to roller skates. Recently a roller skating derby was held there.

The United States entered the World War on April 5, ten years ago.

Leningrad, Russia, is believed to have shattered all records for drunkenness, suicides and murders. Five thousand one hundred twenty-four persons were arrested for drunkenness in one week, and there are seldom fewer than three murders a day. The waiting list of those seeking a cure for drunkenness and drug habits at the government institute extends into June.

An analysis of the Ford financial statement for 1926 by experts, reveals that the company made nearly ninety million dollars last year.

DEVOTED
TO
MICHIGAN
VOLUME CLXVIII

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MICHIGAN SECTION THE CAPPER FARM PRESS

QUALITY
RELIABILITY
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NUMBER XVI

Dairy Cooperation in Minnesota

How Farmers Built a Great Merchandising Business

By Berry H. Akers

Standard Farm Paper Editorial Service

FIVE years ago, just before the dairy farmers of Minnesota had federated their cooperative creameries to market and merchandise their own fine butter under their own brand, W. F. Schilling, well known Minnesota dairyman and cooperator, was called to New Jersey to talk cooperative marketing to a group of farmers near Philadelphia. After explaining the opportunities of cooperatives to merchandise the farmer's products, Mr. Schilling asked:

"Will you farmers (there were two thousand of them in the audience) who have eaten Minnesota butter raise your hands?"

Not a hand went up.

"Will you who have heard of or eaten Luella brand butter, please raise your hands?"

Hundreds of hands went up.

"Where was it made?"

"In Philadelphia," was the reply.

The fact was that Luella butter was made in the cooperative creameries of Minnesota, and was put up under that brand for one of the chain stores with headquarters in Philadelphia. Not a pound of it—and that chain store was then taking the entire output of over seventy-five Minnesota creameries—could be identified by the consumer as having come from Minnesota. The farmers had been content to milk the cows and make the butter, leaving the merchandising with all its advantages of prestige and price, to the buyer.

Now it is different, as the bulk of Minnesota's fine butter is finding its way to the consumer's table under the farmer's own brand. Land O' Lakes sweet cream butter is now known in

most of the principal consuming centers of America, and even in far off Australia and Peru. It is made and packed by Land O' Lakes Creameries, Inc., this organization being a federation of 402 cooperative creameries in Minnesota, and several in Wisconsin, Michigan and North Dakota. It was known when organized in 1921, as the Minnesota Cooperative Creameries' Association, but the name was changed last year to obliterate geographical lines, and thereby make it possible for the cooperative creameries of Wisconsin, Iowa and adjoining states to join in its ambitious cooperative program.

Started five years ago without a dollar and without a member, it stands today as an outstanding success in co-

operative marketing. Its asset and working capital now exceed \$900,000. It represents approximately 84,000 dairy farmers. Theodore Macklin, of Wisconsin, cooperative marketing authority, who has studied the dairy cooperatives of Denmark and New Zealand at first hand, makes the statement that the Land O' Lakes organization ranks next to the California Fruit Growers' Exchange, and predicts that within a few years, when it controls a somewhat larger percentage of the fine butter made in America, it will absolutely dominate the fine butter market. It is already a reckoning factor in that market and as such has helped every dairy farmer in America.

Last year the Land O' Lakes organization marketed 80,622,796 pounds of butter, and did a total business of \$39,851,655. The average monthly gross price paid member creameries for but-

(Continued on page 527).

Fighting Corn Borers With Plows

How the Farmers Can Go Over the Top in This International Conflict

By H. H. Musselman

THE national government appropriation for corn borer control work is intended to reimburse farmers in these areas for the additional cost to which they are put in carrying out a program of thorough clean-up of all cornstalks, stubble, and waste. By reason of this payment for extra work for clean-up to hold back the corn borer, Michigan farmers owe it to the national government and the sister states to see that the job is thoroughly and effectively done. Michigan and adjoining states are the shock troops depended upon to hold the enemy's line, and I am confident that so far as Michigan farmers have instruction, they will carry out the order to the letter.

Are you in the quarantine area? Some farmers are overlooking this important point. The quarantine area in Michigan includes twenty-three counties of eastern Michigan, including Bay, Saginaw, Shiawassee, Ingham, Jackson, Calhoun, Kalamazoo and St. Joseph, as well as all counties east of these.

If you are in the quarantine area, action is necessary to dispose of all cornstalks, stubble, and rubbish by plowing under completely, or by burning. No arbitrary rule is made as to the methods by which this is to be done, but it should be done thoroughly.

Plowing promises to be one of the most effective methods of control, since it offers, when properly done, a simple and inexpensive way of stalk and stubble disposal. There is great opportunity to improve plowing on Michigan farms, and good plowing will reward the farmer in yields and satisfaction, as well as reducing the ravages of the corn borer.

The plowing season is opening. Every farmer should acquaint himself with the most effective way of turning under completely stalks and stubble. With a reward up to two dollars per acre on corn grown last year, extra



Doing a Good Job with the Team and Ordinary Plow Properly Adjusted.

trouble to do the job completely can be afforded.

What is the best way to turn the stalks and stubble under? There are a number of good ways, some of which I will describe, but every farmer should consider that soil, size of corn, whether standing stalks or stubble, clean or foul with weeds, will all have a bearing on the problem. It should also be remembered that the work must be done so well that no stalks, stubble or trash will come to the surface with subsequent tillage.

There are four things to consider in good plowing: depth, width, plow hitch and adjustment, and attachments.

As a rule, as deep plowing as is consistent with good practice should be followed. This is especially true of the usual width plow, as more soil is turned over in deep plowing to cover the trash. However, the depth should not be so great as to push the furrow slice sideways or covering will not be secured.

It can also be stated that the wider plows will do the more effective work, because the furrow slice is turned over better, and the wider plows will turn better at a greater depth. Plows will be used this spring up to eighteen inches in width for a single bottom. For heavy standing stalks, it is doubtful whether they can be turned under completely with less than sixteen or eighteen-inch bottoms.

In plow adjustments, the share should be sharp and have sufficient vertical suction (point of share tipping downward) to pull the plow into the ground. This is especially important where the gage wheel rolling over stubble tends to raise the point out of the ground. The amount of vertical suction should be one-fourth to three-eighth inch. Horizontal suction (leaning point toward the land) will make the plow run more steady. Horizontal suction should be one-fourth inch. The fourteen-inch width of plow will be found quite effective, especially when

equipped with wire or chain attachment, or both. These attachments will be described later. The fourteen-inch plow is useful, since three furrow width of the plow is exactly the usual width of corn rows. With careful work, the plow can be made to turn each stubble row in the same way. The most useful attachment will be the rolling coulter and jointer. Since the rolling coulter cannot be used on some walking plows, the jointer will be more generally used. It should be set one and one-half to two inches deep, one-half inch to land from the land side, and with the point the lowest part.

A No. 9 wire attached to the coulter shank or beam, with the loose end allowed to drag for four feet under the furrow slice which is being turned, will be found effective. If you have not used this, try it. The best adjustment can be found in a few minutes.

A one-half or five-eighth-inch chain, with one end attached to the jointer shank and the other to the eveners, and with a length of loop just escaping the furrow slice as it is turned over, will be effective in wiping both stalks, stubble and trash into the bottom of the furrow. To keep the chain tight, a knot is sometimes tied in it which will drag in the bottom of the furrow. A second short piece of chain attached to the first and allowed to drag under the furrow will keep the first chain tight and make it more effective.

These suggestions apply principally to walking plows. For riding and tractor plows, both rolling coulter and jointer, as well as one or more wires for each share, should be used. For plowing under standing stalks with a fourteen-inch plow, at least once over with a disc harrow in the direction of plowing, may be found effective.

The corn borer fight will require new standards of plowing. Why not be the first in your neighborhood to set that standard?

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 home problems.

VOLUME CLXVIII NUMBER SIXTEEN

DETROIT, APR. 16, 1927

CURRENT COMMENT

The Apple Growers' Dilemma

THE apple growers of the country are not in the happiest state of mind, because their operations during the past year were not profitable. In fact, for a period of several years their financial returns have not been sufficient to enable one to call them good automobile prospects.

Over-production seems to be common cause of the conditions confronting the apple grower, although we believe that over-production is not the fundamental cause. The encroachments of other fruits upon the apple market has made that market more limited at a time when it should be expanding. The growers of other fruits have been able to widen their markets through acquainting the consuming public with the value of their fruit. Highly intensive advertising campaigns have been the weapons used.

The status of these fruit growers was worse than that of the apple growers. They either had to fight or give up. The apple growers are now coming to that same realization and the advertising campaign now being planned should effectively place the apple in its proper position in the consuming market. We are pleased to note that Michigan ranks second in the membership in this national advertising movement.

Better Days Ahead

IT is very difficult to tell the way we are going, but by everything that is good, it seems certain we are on our way to something that has the appearance of being an improvement over present ways. At least, that is true if some of the things mentioned below ever come to pass.

In twenty-two different states experiments are being conducted by experi-

ment stations in the use of electricity on the farm. Among the many ways in which this mysterious power is being put on trial is its adaptability in grooming horses; washing bottles and dishes; grinding feed; running cream separator; milking cows; drying, baling and hoisting hay; mixing feed; cleaning poultry houses with the vacuum cleaner; operating ventilators, running water, refrigerator, cooking and lighting systems; controlling insects; sprouting seeds, etc.

This is only a partial list of the scores of experiments that are being carried on by these electrical engineers. Some of the operations tried will prove helpful; and in their success many more uses will suggest, or present themselves, to the end that a great field of usefulness, reaching far beyond the present conception of its value to the farmer, will ultimately be realized.

Keep Up the Fight

THE anti-trespass bill passed recently by the Michigan State Senate is now in the hands of the Committee of Conservation in the House of Representatives, of which Frederick R. Ming, of Cheboygan, is chairman.

As indicated last week, this bill was so amended by the Senate as to greatly destroy its usefulness to the farmers as a measure for correcting the evils of unrestrained trespassing by hunters and fishermen upon the property of farmers. The only hope of securing satisfactory legislation on this subject during the present session, is for readers to write Chairman Ming urging his committee to restore Section Four of the original bill which provides the necessary machinery for enforcing the penalties for violating the provisions of the measure. We, therefore, urge our readers to immediately correspond with the chairman of this committee, addressing their letters to him at the House of Representatives, Lansing, Michigan. It will be necessary also, to send letters to your representative asking him to sup-

port this measure when it comes to the floor of the House for the consideration of that body.

Legislators are inclined to do what their constituents desire, providing wants are sufficiently emphasized by voters. This is our reason for continuing to urge this measure. The methods employed by the widow of long ago, who persistently made her appeals from day to day to the unjust judge, should win out in this instance, as it did then. Do not wait until next fall, when hunters are thick and you are beside yourself to know what to do to protect your property, and preserve your piece of mind. Prompt action now may give you relief then.

The Universal Language

THE fourth great material want of our nature is music—first food, then raiment, then shelter, then music, said Bo-vee. It is the purpose of the National Music Week to supply this fourth great material want of our nature, and to develop a greater appreciation of mu-

sic. Special programs are being utilized as an entering wedge to make music play its part more abundantly in rural life. Once the wedge is entered, community organizations are inspired to carry on musical activities throughout the year.

This year Music Week is announced for May 1-7, and rural organizations will benefit by giving special attention to a program that will supply this fourth great material want to the folks in their community.

Through the National Music Week committee, plans may be secured for Music Week programs in rural communities. Address this committee at 45 West 45th Street, New York City. Pamphlets of information on music in the home, family and group singing, and music appreciation through the radio and phonograph may also be obtained.

Music is the "universal language of mankind," and if we are to live closer to, and understand our neighbors, we should endeavor to better understand our universal language.

Help These Measures Along

ON Tuesday of this week the Michigan State Farm Bureau arranged a hearing before agricultural and judiciary committees of the state Senate on the need for legislation giving relief to farmers from chicken thieves. Since we published a broadside on this subject many months ago, much has been said by and for the farmer on the matter. The farmer is certainly justified in asking for relief along this line.

Two bills have been passed by the House which promises to help. House Bill No. 19 requires all firms purchasing poultry to make a record of the name of the seller, his residence, weight, business occupation, kind of poultry purchased, etc. This record is to be open at all times to sheriffs and police officers. This bill is now before the senate agricultural committee. House Bill No. 167, a companion bill to the above, provides a heavy penalty for chicken stealing.

Master Farmer Nominations

WE are highly pleased with the nominations received to date for the 1927 class of Michigan Master Farmers. The standard of the farmers whose names have been sent in is well up to that established in 1926. Several farmers in the state deserve to be named for this honor, but their nominations have not as yet been reported. Since only persons who are nominated will be considered in the contest this year, it is important that the names of such men be forwarded promptly by their friends. If score cards are not available, send in the names at once and score cards will be forwarded so the scoring can be done later. The date set for closing the nominations is May 1. It is important, therefore, to forward nominations immediately. Address all communications to the Editor, Michigan Farmer, Detroit.

This bill is now in the hands of the judiciary committee of the Senate.

The purpose of the hearing called by the farm bureau is to urge the committees to report out these measures. You may not have attended this hearing; but you can aid in the good work by writing your senator and the chairman of each of these committees, urging the enactment of these measures.

The Egg Competition

THERE is no doubt but that the remarkable increase in efficient methods of handling poultry has put the business on a more competitive basis. As in dairying, one now can tell definitely whether a hen is paying her way, or is filling the position of star boarder. This, with the selection used by the hatcheries in getting their eggs from high producers only, has had a wonderful effect in increasing the production of the average hen.

The total production of eggs and poultry in the country has been gradually increasing, and will probably

continue to increase so that prices will tend lower. This will naturally make the margin between profit and loss much narrower.

It is said that the production of the average hen is about seventy eggs per year, but that ordinarily a yearly production of 160 eggs is needed to maintain a flock at a good profit. As egg prices continue to decline, an even higher egg average will be necessary to maintain a good margin of profit.

Like the automobile business, the chicken raising industry is approaching a period of competition in which the careless and unefficient producer undoubtedly will have to quit. Those who realize this period of competition is coming, and will prepare for it by making their business more efficient, will profit thereby. It is doubtful if the chicken business will ever be unprofitable if carried on efficiently.

Strings

I WAS just looking for a ball of string and couldn't find it and, it's funny, that made me think of strings.

You know, I think strings are one of the most useful instruments of civilization. In fact, I think civilization would come apart if it wasn't for strings. It's the strings we attach to each other that makes living together possible. One of the greatest strings is the marriage string, and that gets into such a hard knot, or knot I should say, that it's sometimes hard to untie. But if you got money enough you kin



get a expert to untie it fer you, but there's some folkses I know that think they're tied up fer life with a rope a foot thick.

There's some others what are tied up with the strings of the heart, and they are happy because nobody ties any nicer knot than Cupid, 'cause there's no greater happiness than when the heart strings are tied. The reason so many ain't happy, though married, is 'cause the heart ain't in the tieup.

Every little baby that comes is also a string that ties us tighter. Everything we do in kindness is also a tie in love and affection, and every wrong thing we do is one more that ties us to evil. Sometimes these ties get so strong that it is hard fer us to cut ourselves loose.

We can't live without being tied to something, so we've got to be awful careful what we get tied to, 'cause the strings o' habit are so strong that often they don't get untied until the strings o' life are cut, and then the undertaker ties a few knots in the family.

If we didn't have strings we wouldn't be able to wrap anything up. Ain't it awful, how bad we feel when we bust a shoe string. It's caused some folks to bust the strings on their temper and to have a hard job getting it tied up again. Women, and some men, too, couldn't have their shapes made to order if it wasn't for corset strings, and if it wasn't for strings, we'd have to wear fig leaves, like Eve did in the afternoon, because our clothes is strings woven closely together.

They say the latch string is out for hospitality, and a fellow is stringing 'em when he is making folkses believe something that ain't so. Some folkses maybe think I'm stringing this out too long, so I guess I'll tie my knot and quit. But, before I do I wanta say there ain't nothing nicer than the cords of love and affection, and I wouldn't mind being tied head and foot with them. They help to make it easy to stand the discords of life.

Even Sofie is talking about tying a string around my big toe and jerking it to get me up in the morning. She says the family ties will be disrupted if I don't do better soon.

HY SYCKLE.

Conservation of Game

Suggests Working with Farmer

By Ira W. Jayne

Judge Third Judicial District, Michigan

SMALL game hunting and fishing, and the best trapping, is today in the older settled communities. If the conservation department made an effort they could have the hearty support and cooperation of the great bulk of the farmers who control this territory, which would mean increase in game, because the question of taxation is the only question which exceeds the question of game laws in interest and irritation with the average farmer.

Take the question of increase of muskrats, for example. They have increased wonderfully since the closed season. It opened this winter. Farmers who have fed and protected these rats in their pond holes and creek bottoms for the past few years, some of them more or less unwillingly, were obliged to submit to have itinerant poachers clean out the crop in a few nights, their only protection being an appeal to the civil trespass laws which are hopeless. The same situation is equally true of the rabbit, partridge and pheasant. Farmers feed and protect these small game more or less unwillingly at the expense of depredations on their crops during the season. When the game season opens in the fall, generally at their busiest time, they are obliged to stand by and watch hordes of foreign hunters, equipped with complete killing paraphernalia, wander over their fields and clean up the game in a fortnight.

There has been a great falling off in the local nesting and breeding of the wild ducks of the various kinds who used to breed naturally in Michigan. Farmers could be induced to protect and encourage the breeding of these ducks, which would mean nothing but judicious feeding, if they received cooperation and protection from the conservation department. If I understand the situation correctly today, the only time the conservation department will cooperate in protecting the farmer is when he makes a farm a game preserve, which prevents him from hunting entirely, and profits his neighbor only.

There is another phase of the matter which requires a better understanding. Skunks and weasels particularly, and to a considerable extent, mink, destroy a great deal of domestic poultry and eggs during every season, as well as large amounts of small game. The weasel is a killer for the fun of killing, sometimes destroying forty or fifty fowls in a night. A neighborhood infested with these animals should have the assistance of expert game protectors of the state.

The problem of the skunk is more difficult, as he is a valuable fur-bearing animal. I have known several instances of the local authorities threatening and punishing those who kill skunk who were nesting under their

residences, and living as well off their poultry. Every community is damaged to the extent of thousands of dollars by the depredations of sheep-killing dogs. Some statistics of the amount of money which some of these counties pay out for sheep killed by dogs would be interesting, and the county, of course, cannot recompense farmers more than fifty per cent of actual damage which he suffers. These dogs also worry and destroy much small game. Their destruction would test the skill of some of the experienced wolf wardens. It would be a service in the interests of conservation and would pay for itself many times over in the savings of taxes. Why would it not be a good idea to turn all of the dog license fees into the conservation department fund and make them responsible for the destruction of unlicensed dogs? Then to place one game warden on full time in each of the counties of the lower part of the Lower Peninsula where these problems are acute? Acquaintance would lead to confidence. And the conservation department, by opportunity for service, would secure the cooperation and support of the farmer.

PLANTING MANGEL SEED.

MANGEL seed seem to germinate very slowly, and for that reason the weeds often make a good start before the mangels are large enough to cultivate. For the last two years I have placed my mangel beet seed in large dishes and poured warm water over them. Then I have placed the seed in the sun and allowed them to remain until small sprouts started.

Then the sprouted mangel seed have been planted in rows by placing about three seed every foot. As soon as the plants were about an inch high they were thinned to one plant every foot. This has seemed to insure one healthy mangel beet for every foot, and as the germination of mangel seed is sometimes rather low, I have found this method better than sowing dry seed in drills and doing a lot of thinning to keep the beets far enough apart. By sowing in drills I sometimes found vacant spaces in the rows.

I have tried to transplant mangels to fill in vacant spaces in the rows, but always found that the transplanting gave the young plants a severe setback and they seldom developed the size of the plants which did not have to be disturbed. By the hill method there was a good chance of finding at least one good beet for every foot of the row. The above method is used in planting mangels in a large garden for use as poultry feed, and might not be as good where a large acreage is raised under field conditions the same as sugar beets.—R. G. Kirby.



The famous Goodyear Pathfinder. Car owners have already bought nearly 5,000,000 of these lower priced, standard quality Goodyears.

Right in Your Home Town

You can buy tires through the mail of course, but one of the biggest factors in low-cost mileage you cannot buy that way.

It is the valuable service performed for you by your local Goodyear dealer.

He sells the world's finest tires. His prices are low. He has in stock the right size and type of tire for you.

He will mount your new tire on the rim, fill it with air, and long after the sale help you care for it so that it will deliver you its maximum performance.

The benefits of this helpful service are not listed in any catalogue. But they are available to you now in the store of your hometown Goodyear dealer.

They are the worthwhile fruit of the Goodyear policy: to build the greatest possible value into Goodyear products, and to provide facilities so that users can get all this inbuilt value out.

Goodyear makes a tire to suit you—whether you want the incomparable All-Weather Tread Goodyear, the most famous tire in the world, or the lower-priced Goodyear standard quality Pathfinder

Goodyear Means Good Wear

GOODYEAR

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The Potato Train, which was Exhibited at Many Points in Southwestern Michigan, was Visited by Over Six Thousand People.

By Our Lansing Correspondent

Aborno Laboratory 92 Jeff St. **Lancaster, Wis.**

"Expenditures authorized by the previous administration, which must be met, for the current two years, exceed the estimated available revenues by \$4,223,587. These expenditures were authorized in the face of an actual

"To maintain our present tax rate, therefore, drastic reductions are imperative in the appropriations asked of this Legislature, and now before your committees for consideration. With the same tax rate, there will be additional revenue from the normal increase in assessed valuations, but it will still be necessary to cut approximately \$38,000,000 from these requests. This is manifestly not a time when you, as individual legislators, can hope that the bills in which you are personally interested will go through without cuts. Reductions must be made all the way down the line. My appeal is to make every sacrifice necessary to bring the financial condition of Michigan back to a sound basis, without placing added burdens upon the taxpayers. We must apply economy and business principles to the affairs of our state government. We must not punish the people with an increase in the tax rate because of the wanton extravagance of those who have been in power."

Complete revision of Michigan's law relative to bees and apiaries as proposed in a bill by Representative David H. Brake, of Fremont, was approved

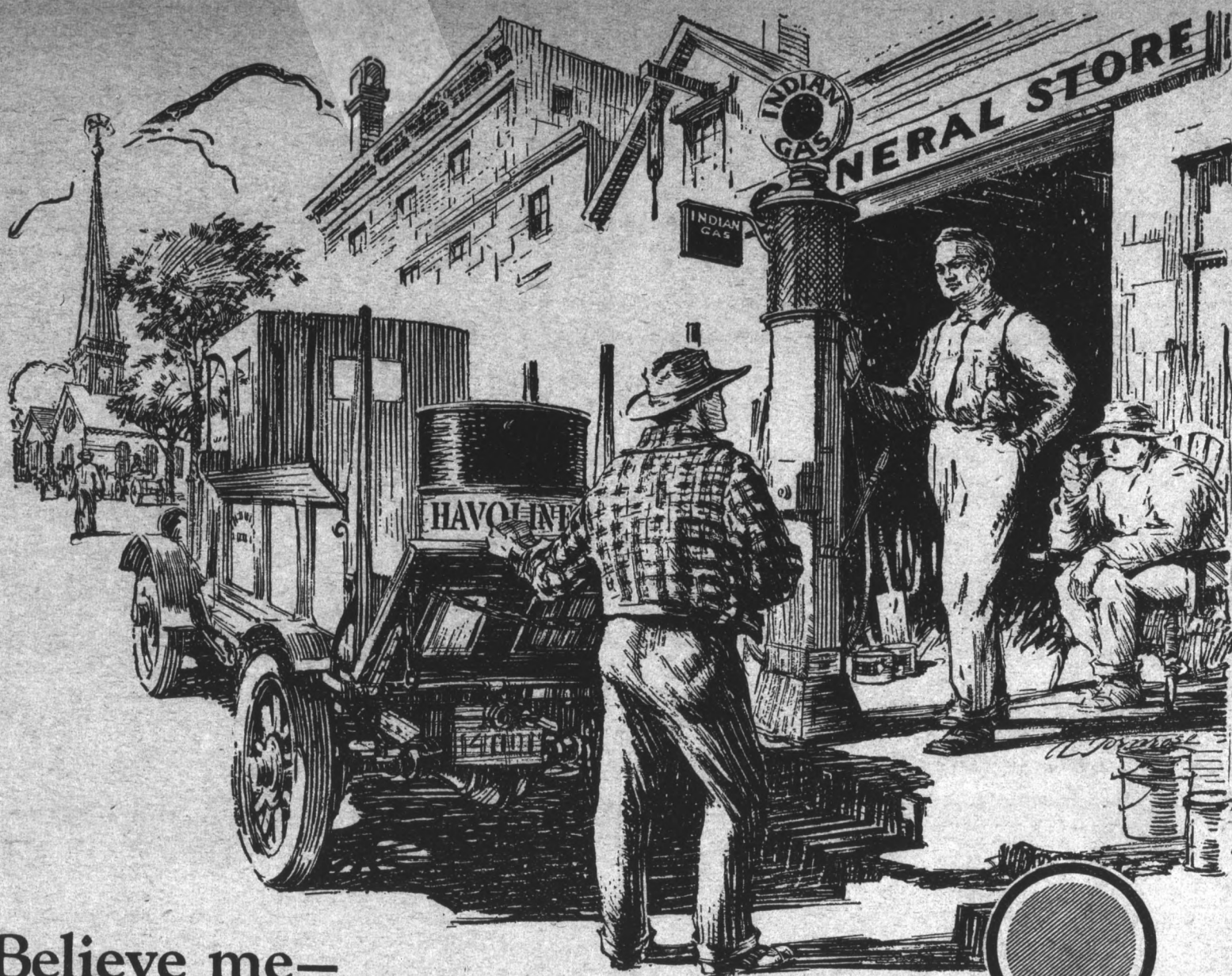
A method of X-Raying the heart and lungs has been announced.

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Over a hundred other attractive homes in the Harris Free Book of Plans. This one, size 28x20 ft. is planned with five large sunny rooms or four rooms and bath. **\$612**
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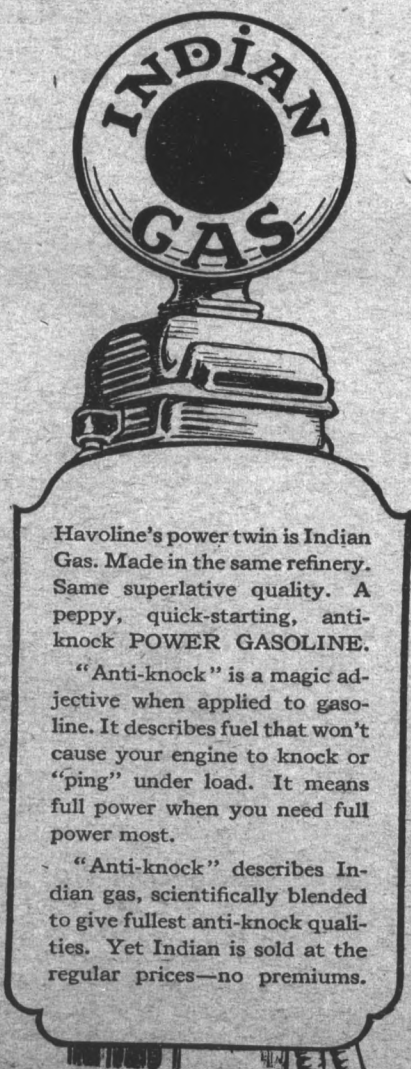
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find a better oil than Havoline"

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INDIAN REFINING COMPANY, Incorporated



Havoline's power twin is Indian Gas. Made in the same refinery. Same superlative quality. A peppy, quick-starting, anti-knock POWER GASOLINE.

"Anti-knock" is a magic adjective when applied to gasoline. It describes fuel that won't cause your engine to knock or "ping" under load. It means full power when you need full power most.

"Anti-knock" describes Indian gas, scientifically blended to give fullest anti-knock qualities. Yet Indian is sold at the regular prices—no premiums.

"Yessir," continued the storekeeper, while his newest customer stowed away the drum of Havoline in his truck, "you'll never regret the day you tried Havoline.

"I don't pretend to be an oil engineer or anything like that. But I've been handling Havoline for a good many years. It's made right here in this part of the country—all from the same grade of crude—and by the same men for the last twenty years. Some of my trade have been using Havoline almost that long.

"About ten years ago, one of these steady Havoline-users told me he figured that he got *more power* when he had Havoline in his truck and tractor. Well, I didn't pay much attention to that. Then another man told me the same thing. I got to asking them about it when they came for their oil, and pretty near every one had the same hunch—that Havoline was a power oil.

"Then, a couple of years ago, along comes a new invention called the Wasson Motor Check which scientifically proved that all those hunches were dead right. 60,000 cars were tested. With a full crank-

case of Havoline, the big majority of 'em were able to run up power gains of from 10% to 30%.

"You'll notice the difference when you get that oil working in your tractor. Let me know how it pans out. And remember we've got the other grades of Havoline you'll be needing for the rest of your equipment. And Havoline greases, too."

Thirty per cent more power means something on a farm. On the one hand, you can take it to mean more work—or the same work finished in less time. On the other, you can think of it in terms of economy—less gas and oil and less wear and tear on your equipment. Havoline is the power oil, but it costs no more than any of the well-known oils.

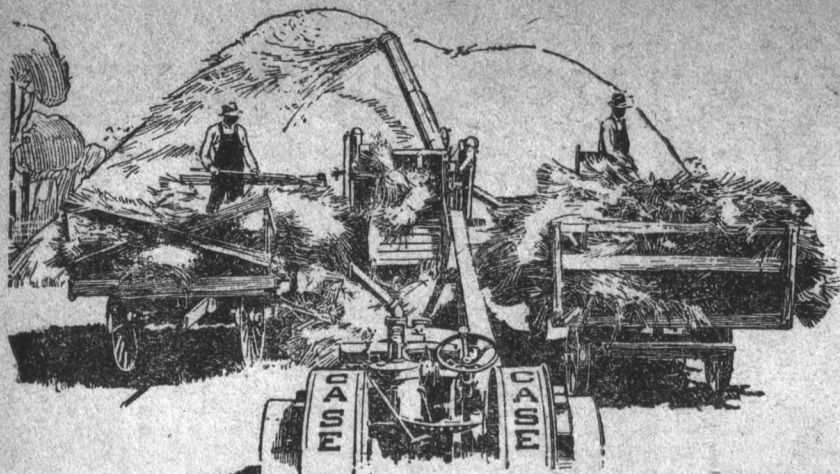
Order your Havoline today—in 5-gallon cans, 30- or 50-gallon drums—from any Havoline dealer or the nearest Indian station. Consult the Oil Power Guide and the Truck and Tractor Guide to determine the correct grade of Havoline for each of your engines. Copies of these "Guides" will be mailed upon request. Or ask your dealer.

Indian Refining Company

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OIL IS MORE THAN OIL—IT IS POWER



Safe in the Bins

"THIS season, when I see so much grain sprouting and rotting in the fields, I am glad I own a Case thresher. All of my grain is safe in the bins."

If you own a Case thresher you are protected from many serious losses. This protection costs you nothing because a Case thresher pays for itself in a short time—in bad years it is the means of saving entire crops.

Case steel threshers are preferred by experienced men because they do good, clean, fast threshing of all grains and seeds for many years, without delay and at a lower cost.

Rugged steel construction, simplicity and easy running make the Case the ideal thresher for the modern farm where efficiency and economy count.

This year take no chances with your grain, mail the coupon today.

J. I. Case Threshing Machine Co.

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TRY a Michigan Farmer Liner to sell Your Poultry, Real Estate, Seeds and Nursery Stock and Miscellaneous Articles. See Rates on Page 553.



"More Milk with More Cow Left at the End of the Year"

Milk Maker, a Public Formula Ration,
Builds for the Future

THE important part that Milk Maker plays in Michigan dairying is probably best set forth in the claims made by hundreds of Michigan's leading dairymen who have used Milk Maker continuously for one or more years.

These dairymen tell us that they have secured the following results by the use of Milk Maker, viz:

1. Cows have kept up in better flesh and better physical condition.
2. Cows have maintained a larger and more even flow of milk.
3. Calves better developed and stronger at birth.
4. Freedom from trouble with cows at calving time; no retained afterbirth and no udder trouble.

The strongest advocates of course are those dairymen who have used Milk Maker continuously since it came on the market in 1922.

Buying a Better Herd

These men have realized that in buying and using Milk Maker they are assuring themselves of a better herd of cows two or three years hence.

In buying a bag of dairy feed you do not buy the feed for the feed itself, but for the ultimate results obtained. The results to be obtained are not necessarily determined by the price of the feed. The real value of the feed is determined by the per cent of digestible protein and digestible nutrients, both of which determine results.

A common phrase among users of Milk Maker is "More milk with more cow left at the end of the year."

Ask for booklet on "How to Feed for Economical Milk Production."

Michigan Farm Bureau Supply Service
Lansing, Michigan

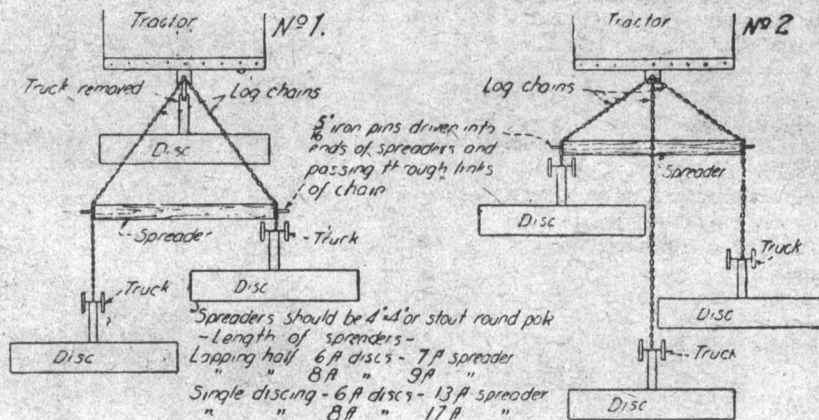


HITCHING THREE DISKS BEHIND TRACTOR.

In this case it would be necessary to build a new tank.—F. E. Fogle.

To those who wish to use three disks behind a tractor we would suggest the following methods, which have been worked by some of our readers and found practical. The first method illustrated, seems to be the most satisfactory of the two, since the load is closer to the tractor and there is less chance of the two rear disks fouling each other in turning. Since nearly everyone prefers to lap the disks half, and double disk at one operation, both hitches are shown for that kind of work. However, the disks can be spread out more with the longer spreader.

At first thought, it might seem simp-



A long beam put across rear of tractor with one disc at each end and the third in the middle does not work well, as front wheels of tractor slide side-wise in turning.

ler to bolt a heavy timber across the rear of the tractor, and hitch the disk at each end, and the third disk at the middle; but this does not seem to work out very satisfactorily, since the front wheels of the tractor slip badly in turning. With the hitches as shown, this does not bother. If any reader has a hitch for three disks which he is sure is as satisfactory as these, we should be glad to have a sketch and description of same, with dimensions of parts.—I. W. D.

ASPHALT COATING FOR CISTERN.

I have a cement cistern that leaks. It has been gone over repeatedly with a cement wash that seems to stop it for a time, but has the bad effect of making the water hard for a while. Would it be advisable to paint this cistern with some of the asphalt roof paints that are on the market, and would there be any bad effects on the water for laundry and bath purposes? Any advice you can give me to stop this leak will be appreciated.—A. I.

Washing with cement is usually only of temporary help. I would suggest that you give the inside a half-inch coat of plaster, of a mixture of one bag of cement, one-sixth bag of hydrated lime, and one and one-half cubic feet of clean sand. Then, to prevent hard water, and to help against leakage from hair cracks, coat the surface with hot paraffin or hot asphalt, or two coats of either dissolved in gasoline. Roof paints and cements are likely to contain materials which will discolor the water or give it a bad odor.—I. W.

MENDING A CEMENT TANK.

What can I do to keep a cement water tank from leaking? The water seeps through the cement. There is, also, a little crack in the tank. The tank leaks very badly.—F. S.

The tank should be thoroughly washed with water and then be washed with a ten per cent solution of muriatic acid, then rinsed with water. To this clean surface apply a cement plaster. In case the concrete of the tank was made of a mixture having too small an amount of cement, or of inferior gravel, it might be impossible to make a cement plaster stick to it.

CHIMNEY CONSTRUCTION.

Could a good-sized chimney, forty feet high, take the smoke from a furnace and fireplace, up through one flue if it had separate flues up a few feet above fireplace opening?—Subscriber.

It would not be desirable to have a fireplace and furnace connected to one flue, but rather there should be two flues. The cross sectional area of fireplace flues should be one-tenth to one-eighth of the area of the fireplace opening. The size of flue for a furnace would depend upon the size of a furnace. An 8x12-inch flue is large enough for an average house furnace. I suggest that you get Farmers' Bulletin

No. 1230, "Chimneys and Fireplaces," from the United States Department of Agriculture, Washington, D. C.—F. E. Fogle.

TILE CLOGS UP FROM SOAP.

The tile from my kitchen sink joins the tile from the basement at about half the distance to the outlet, or seventy-five feet. The sink is used mostly for washing hands and faces, no dish water being poured into it. During the winter the water from the roof is run into the cistern, but in summer, through this same tile into the outlet. The soap and dirt forms a sort of tough-like substance that, sometimes completely clogs the tile. Do you know of anything that will completely remove this obstruction without digging down to it? The line is not straight, so it cannot be punched loose.—J. B.

There are a number of preparations sold through plumbing shops and hardware stores called pipe solvents, which are very satisfactory for cutting accumulations of grease out of pipes, and these would probably remove the collections of soapy materials, but I imagine it would take several cans to reach the trouble, away down in the middle of your drain. I think the cheapest and most effective way would be to rent one of the heavy sewer cleaning steel tapes. These are flexible, and about a hundred feet long, with a punching and cutting head, and I think you would have no trouble working it up from the outlet far enough to reach the obstruction. You might also work it in from the upper end of the drain from the basement.

Probably the best arrangement would be to build a basin of cement or of brick, laid in cement where the two drains come together, so serve as a sort of grease and soap trap. The laundry and sink waste could then come into this basin, while the outgoing water would be taken from near the bottom of the basin, leaving the grease and soap scum to collect on the top, where it could be removed every few months.—D.

Greenbush Inn, located north of Oscoda on Lake Huron shore, is the only resort hotel in Michigan to give consideration to tall people. Seven-foot beds have been installed.

FARMERS GET REVENUE FROM TRAPPING.

FARMERS in the lake and river region of southern Genesee and northern Livingston counties, have found, during the past months of February and March, that portions of their farms that had formerly been considered waste lands, are capable of bringing them as great monetary rewards, for the time and labor expended, as any other part of their farm.

A number of farmers with a stretch of river frontage, open ditches and undrained pond holes, have found themselves better off by between \$300 and \$400 on March 31, than they were on February 1, or the opening of the trapping season.

In normal years lakes in this locality are frozen tightly until well along towards April, or the close of our present trapping season. For that reason they are not near as good trapping ground as that of rivers where open water is secured in all but extremely cold weather. Even during the present year, when the lakes cleared of ice exceptionally early, trappers found the lakes inferior trapping ground until along in March.

Large open drains are favorite runways for muskrats on account of their extended pilgrimages in search of food. They are non-carnivorous, with the exception of a fondness for fresh water clams. The raccoon, however, wanders up and down the woodland streams and ditches in search of frogs and land crabs.—G. E.

WOMEN WANT LAWS ENFORCED.

THE women of the nation are becoming thoroughly aroused over the laxity of law enforcement and the need of public officials who are in sympathy with the law. A women's conference on law enforcement is called to be held in Washington, May 6-7. The leaders issuing the call say the women of the United States will not favor the nomination or election of any candidate for any office who is not loyal to the Constitution of the United States.

USE MORE COMMERCIAL FERTILIZERS.

FARMERS are using more commercial fertilizers than formerly, according to figures given out by the department of commerce. The biennial census of manufacturers taken in 1926 shows a total output of fertilizers valued at \$206,722,904, compared with \$167,347,351 for 1923, the last preceding census year. Of this amount \$137,074,176 went for complete fertilizers, indicating that the home-mixing of fertilizers is far from becoming a common practice on the farms of this country.

WIND INJURY OF CROPS ON MUCK LAND.

IN a majority of muck areas of the state, farmers need to protect this land from wind injury. Four methods are advised by Paul M. Harmer, specialist in soils at the Michigan State College. They are the maintenance of moisture in the soil, compaction of the soil by heavy rolling, the addition of organic matter, and the use of windbreaks. In a good system of muck crop farming all of these methods should be used. He further states that a windbreak of trees should be grown every forty rods on the west and south sides of the areas. Further, by growing strips of winter rye or other grain crops at regular intervals gives protection to such small crops as onions when grown in large fields. In small fields board fences or over-head irrigation outfits are recommended for special crops. This whole matter is discussed in detail in Circular Bulletin No. 103 of the Michigan Experiment Station, East Lansing.

AMERICAN STEEL & WIRE COMPANY



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R. R. RAIL DESIGN STEEL
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- SLIT WING ANCHOR
- NO HOLES TO DIG
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- R. R. RAIL CONSTRUCTION
- EASY TO ATTACH LINE WIRES
- PROTECTION FROM CORROSION
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It's Easy to Build Fences with Posts Like This

In the spring of the year when there are new fences to be built, with a hundred and one other jobs to be done, Banner Fence Posts will save you time when it is most needed. Banner Posts can be set up in a few minutes. No holes to dig, no tamping and no staples to buy. Note the big features which are exclusive in Banner Posts and which mean so much in extra service.

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All Banner Steel Fence Posts are made of railroad rail design with heavy backbone reinforcing. They are made of NEW STEEL and are GUARANTEED to give the equal of or longer service than any other steel fence post of same weight which is used under similar conditions.

Any buyer who will show that Banner Posts, purchased through his dealer, have failed to give this service, will be supplied by us with new posts, free of charge and without delay.

Banner Steel Posts are not affected by frost. Your fence is grounded wherever a steel post is used and danger to your stock from lightning is greatly reduced. With Banner Steel Posts the fence line can be burned off every year, thus getting rid of weeds, insects and rubbish. The clean farm grows the best and biggest crops and with the least labor and expense. See our dealer in your community. He has Banner Posts in stock for quick delivery. Banner fence Posts may be used with any brand of fence but for best results, ask your dealer to supply you with American, Royal, Anthony, U. S., National, Monitor or Prairie brand fence.

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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.

DR. HESS & CLARK, Inc.
Ashland, Ohio

DR. HESS DIP and DISINFECTANT



ABOUT THE FARM

EARNINGS FOR A TRACTOR.

Please advise me as to what a fair earning of an oil tractor ought to be per day or hour, on belt work, for filling silos, and on a saw mill. The tractor is a 15-30.—S.

Fair earnings for a tractor of a 15-30 horsepower rating should be from \$1.50 to \$2.00 per hour. Belt operations, such as filling silos and sawing wood, in which the power is intermittently applied, should bring about \$1.50 per hour. The heavy drawbar operations including plowing and disking, should bring to the owner about \$2.00 per hour.—E. C. Sauve.

HOW TO BUILD JUG CISTERN.

Would you please give me instructions for building a jug cistern and a filter for a cistern?—H. M.

One method of making a jug cistern which can be used in hard ground, is to dig a bottle-shaped hole in the ground and plaster cement mortar directly onto the earth. It is usually not necessary to put on more than a couple of inches of concrete.

A second method of constructing an

outdoor cistern is to dig a circular trench the thickness of a concrete wall which would be about six or eight inches. The trench may be dug with a post hole digger, a tile spade, or a tiling spoon. The trench is then filled with concrete up to the point where the sides begin to slope in to form the neck of the cistern. The earth around the neck is then scooped away to form the proper slope for supporting the concrete neck. Concrete is then plastered onto this earth form about five inches thick. After the concrete has sufficiently set, the earth core is taken out through the top and a concrete bottom put in, and the inside plastered with cement. This method for building a cistern is to be recommended only where the ground is mellow, and yet firm enough to stand as a wall when a trench is dug.

A third method is to dig a hole of the desired size, and by use of a circular form of steel, form the wall. In this case, the earth is used as the outside form and the steel as the inside form. The concrete is mixed only to a dry mixture and thoroughly tamped. The form is then lifted and another eight or ten inches of solid wall built entirely around the circle. The process of filling the form, tamping it down, lifting the form and refilling it—continue until the cistern is up to the height where it should be sloped in to form the neck, a board form is sometimes used, and the neck of the cistern formed. Concrete blocks and bricks are also used for outside cisterns.

One of the simplest methods of making a cistern filter is to build a wall across one corner of one end of the cistern with porous brick, or build two brick walls of porous brick and fill the space between with sand and gravel or charcoal. The water in the main part of the cistern filters through the walls into the portion of the cistern that is walled off.—F. E. Fogle, M. S. C.

VIABILITY OF CLOVER SEED.

I have some clover seed which is several years old, but stored in a good place. How long can it be kept and still grow good?—E. J. S.

The length of time that clover seed can be held over and still be of value for seeding purposes, depends somewhat upon the original viability of the seed, and the conditions under which the seed is stored.

Assuming that the seed was of high viability to start with, and stored under favorable conditions, seed should be of value for at least three or four years.—C. R. Megee.

FERTILIZER—AMOUNT OF COW PEAS AND SOY BEANS TO SOW.

What kind of fertilizer would be best to plant with corn? How many cowpeas and soy beans should be planted per acre?—R. B.

The best kind of fertilizer to apply with corn depends somewhat upon the kind of fertilizer that has been applied in the past years, and also upon the nature of the soil.

On heavy land, where legumes have been grown in the rotation, I would suggest the use of a high-grade acid phosphate fertilizer, applied at the rate of from 150 to 300 pounds per acre.

On sandy soils, where manure has been used, or where legumes have been grown in rotation to some extent, a high-grade acid phosphate fertilizer would be desirable.

On sandy soils where manure has not been used, or legumes have not been grown to any extent, 4-12-0 should give better results.

When either soy beans or cowpeas are to be planted with corn, it is customary to use from four to six quarts of seed per acre, together with the usual amount of seed corn. Better results are usually secured when a combination planter is used—that is, the ordinary corn planter with the pea attachment. If only a small acreage is to be planted, the corn and soy beans can be mixed together in the hopper. Only a small amount should be put in at one time, since the beans are somewhat round and smooth, and will tend to work to the bottom of the hopper, resulting in a very un-uniform stand. A few farmers have been successful in planting the corn first, and then immediately planting the beans by means of a second operation.—C. R. Megee.

RED TOP AND ALSIKE FOR LOW MUCK LAND.

What kind of grass seed can I plant on low muck ground and cut the hay this year? I have a great deal of low ground, and want to make some good use of it. Would red top grass seed do well, and could I cut it this season? When should I plant it? Will alsike clover do well on low ground? Would it be good for more than one season?—G. A.

Red top will not produce a crop of hay this season if grown on muck land this spring. Both red top and alsike clover are well adapted to low muck land, but a crop of hay is not secured until the second season. Both are perennial crops and last several years.

Hungarian millet makes one of the best annual or emergency hay crops for muck land. It should be sown about the first of June at the rate of thirty pounds of seed per acre. It should be harvested for hay before the seed matures, preferably in the late milk stage.—C. R. Megee.

ENSILAGE FROM SWEET CLOVER.

Will sweet clover, cut the latter part of June, make ensilage to feed during August, September and October? We have eight acres of sweet clover and would like to know whether it would be better to put it in the silo to feed during the dry season, or if it would be more profitable to feed it as hay? I have all the alfalfa hay I can feed.—H. J. B.

It is possible to make a good quality of ensilage out of sweet clover; however, greater precautions must be exercised than in making ensilage from corn. When sweet clover is cut at the beginning of the blossom stage, or just before, the plants should be allowed to lie in the field from three to six hours or longer, if the weather is unfavorable, in order that some of the excess moisture may be given off.

If the sweet clover plants are put in the silo immediately after cutting, the ensilage is likely to be juicy, not very palatable, and will not keep so well.

In case you have a silo and the machinery to handle the sweet clover, and have all the alfalfa hay you need, it would not be a bad idea to put the sweet clover in the silo. On the other hand, it is not usually advisable to grow sweet clover for ensilage when it is possible to grow corn. Furthermore, you would eliminate a lot of work if you allowed your cows to pasture down this sweet clover field.

BOOK ON TEA ROSES.

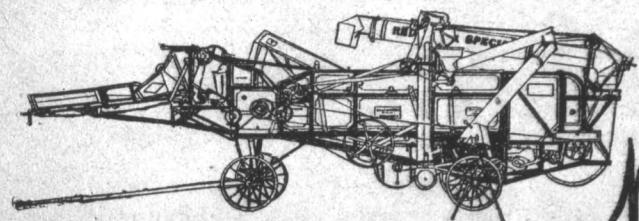
Where can I purchase a book for amateurs that treats on the raising and budding of hybrid tea and other varieties of roses?—E. L. P.

I would recommend the following book, "Roses for all American Climates," by Captain George C. Thomas, Jr., published by the Macmillan Co., New York.

Eleven carloads of lime for immediate delivery have been ordered for Wexford county, and Mr. Ouserhout, the agricultural agent, says that two more cars will be purchased later in the year.

—it SAVES the FARMER'S THRESH BILL

The Thresher that returns top profits



the 28 x 46 of the Red River Special Line

The 28x46 Thresher leads the Red River Special Line because of performance. It has proved the most profitable thresher in most localities.

For 1927 it is greatly improved.

Now it is a 5 shaker machine—a 25% increase in shaker capacity. It's the right size for use on larger farms; it has also the capacity to handle the runs of custom threshermen and farmer companies.

Only a moderate sized gang is needed to thresh with it. Hyatt Roller Bearings—Alemite-Zerk Lubrication at every main bearing point make power requirements very low.

This thresher, like all others of the Red River Special Line, is built with Armco Ingot Iron, the great rust resisting metal. Like every other Red River Special it is equipped with the famous 4 Threshermen, the most efficient combination of machinery ever devised for getting the grain from the straw, and the N. & S. Hart Special Tilting Feeder, that makes good feeding sure and the cylinder quickly get-at-able.

However you thresh, you will want to look over our new threshing book—"The Book of Successful Threshing." It gives more of the facts of threshing with this and other machines—the other book "Another Great Advance in Threshing Machines" deals with the machines themselves. You can use them both. We will gladly send you copies on receipt of the coupon.

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Are Ready
For You

NICHOLS & SHEPARD COMPANY,
286 Marshall St., Battle Creek, Mich.
Please send me the books on Threshing.

Name _____
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My tractor is a _____ size _____ make _____

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Red River
Special
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15' Cut
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Engines

SUMMER FALLOWING FOR QUACK GRASS

I have six acres that I had all ready to sow to wheat last fall, but the wet weather prevented me from sowing it before it froze. This land contains quack grass. I intend to plant it to corn after plowing it about seven inches deep, and check row it so I can cultivate it both ways, or I will summer-fallow it and sow it to wheat, and seed it to a permanent pasture. Please advise as to the best and easiest method to use in this case. Can wheat, treated for smut, be safely fed to the chickens after being put through a fanning mill?—A. T. B.

It is likely that plowing, followed by a summer fallow, will be more successful in eradicating the quack grass than by planting corn. Persistent clean cultivation is the best method to eradicate quack grass.

Wheat treated with the formaldehyde treatment may be safely fed to chickens. There is some risk if the wheat has been treated by the new copper carbonate method.—C. R. Megee.

SEEDING ALFALFA AND SWEET CORN.

Can alfalfa be sown on wheat ground in the spring of the year? If so, how much seed should be sown to the acre? When and how is sweet clover sown? How much seed is sown to the acre? Can a field be prepared and sown in the spring by itself? Can it be cut the first year sown by itself?—J. S.

Many excellent seedings of alfalfa are secured when wheat is used as a nurse crop. I would suggest seeding as early in the spring as the seed can be covered with a spike tooth harrow.

It is customary to sow alfalfa at the rate of ten pounds of seed per acre when dependable varieties, such as Grimm and Ontario Variegated are used.

Sweet clover may be sown in wheat by the same method. Fifteen pounds of scarified seed per acre is the customary amount. A field can be seeded in the spring by using sweet clover alone; however, except on very sandy soils just as good results are usually secured when the seeding is made with a small grain crop.

It is usually necessary to clip the field two or three times when the seeding is made alone, due to the fact that weeds make considerable growth. On very fertile soils, well supplied with lime, a crop of hay is usually secured the first year. On average upland and sandy soils, the growth is not usually large enough to warrant cutting for hay.—C. R. Megee.

SELLING STRAW FROM RENTED FARM.

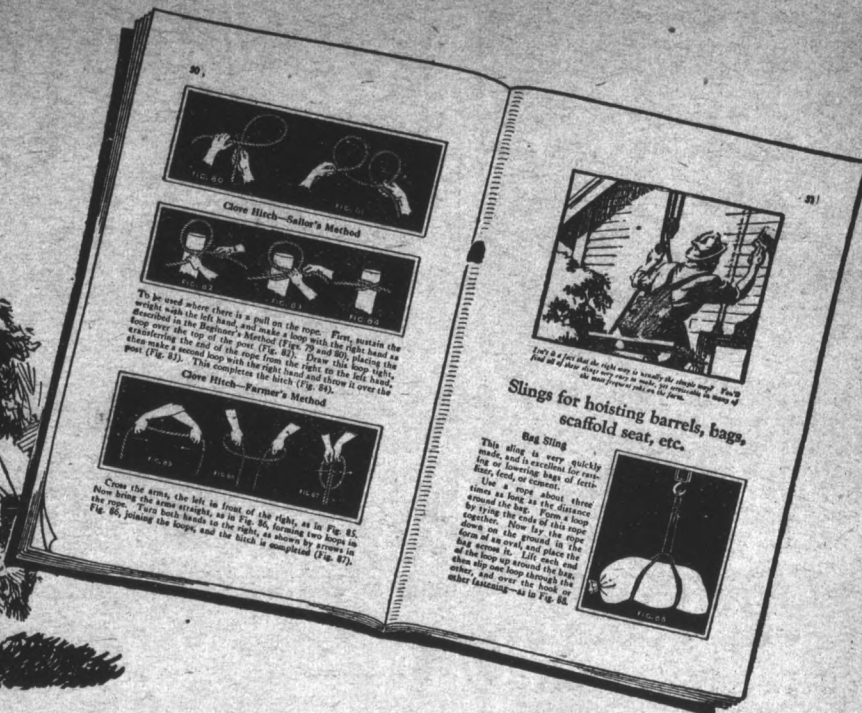
I rented a farm with the agreement that the straw was to stay on the place while I was there. I moved, and the other party sold the straw. Am I entitled to half or not?—L. H.

Straw can be classed the same as grain, and the tenant has a right to do as he sees fit with his share, unless otherwise agreed upon.

Many farm contracts state that the straw shall remain on the farm for the sole purpose of keeping up soil fertility and furnishing sufficient bedding for stock.

If your landlord signed a contract to the effect of keeping the straw on the farm, and with the intent of disposing of it as soon as lease terminated, you have cause for complaint. On the other hand, the amount of straw on the place at the beginning of lease must be taken into consideration.—F. T. Riddell.

The best results are usually secured when the sweet clover is sown at a time when it can be covered with a spike tooth harrow. When all conditions are favorable, early spring seedings made when the ground is freezing and thawing, are sometimes successful. This method, however, is not quite as dependable. In securing a seeding of sweet clover it is advisable to cover the seed.



A book-load of ways to save money on rope...Send for it — now!

Do you know how to make the best knot or hitch for every job on the farm? How to save rope by splicing; how to save time by making knots easy to untie; how to care for rope?

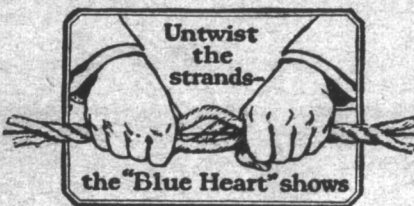
All these things are fully described in our new 58-page illustrated booklet, "More Jobs from the Same Rope."

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Send for this valuable book—now! Mail the coupon at the bottom of this page, with 15c—a mere fraction of the book's cost. Your copy will be sent at once.

H. & A. "Star Brand" Binder Twine

evenly spun from the best fibres—has full yardage, ample strength for binding purposes, and is treated against destruction by insects.



How to know good rope before you buy it

The better quality your rope is to begin with, of course, the greater will be your saving. Here's a sure way to know really good, long-wearing rope, before you buy it:

Untwist the strands of the rope. If you find a blue thread marker—the "Blue Heart"—running in the center between the strands, you may be sure that the rope is genuine H. & A. "Blue Heart" Manila Rope.



H&A "Blue Heart" Manila Rope

Trade Mark Reg. U. S. Pat. Office

Spun by rope makers with over half a century's accumulated experience, this thoroughly good rope will wear longer and deliver maximum service in any size, on any job. For the selected fibres of H. & A. "Blue Heart" Manila Rope are drawn, spun, laid, and properly lubricated so as to insure the smooth working of every fibre, yarn, and strand.

Before you buy rope, untwist the strands and look for the "Blue Heart"—our registered trade mark. It assures you of dependable rope value not only on the first purchase, but whenever you need more of the same kind.

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Xenia, Ohio

For sisal rope

For other jobs where high grade sisal rope is wanted, use H. & A. "Red Heart" Sisal Rope—spun from selected sisal fibre by the same skilled rope makers.

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Enclosed is 15c (stamps or wrapped coin) for which please send me a copy of the new H. & A. Booklet, "More Jobs from the Same Rope."

Print Name and Address Plainly

My Name.....

Address.....

My Dealer's Name.....

Address.....

You are Looking at History

THE hawker of yesterday who cried his wares in the public places is now but vaguely remembered—swallowed up in yesterday's seven thousand years.

Today the news of goods for sale becomes an indelible record of human achievement.

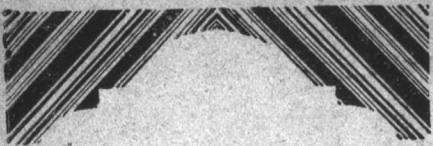
You may take, for instance, the history of transportation in America and read that extraordinary tale of progress in an unbroken series of advertisements

that inform us of each progressive step from the sailings of sloops out of Boston for Philadelphia in the days of Franklin, to the flight of the Air Mail from Mitchell Field to San Francisco in our own day.

You may read the startling story of the revolution in household economy, and the emancipation of the American wife and home-builder in the advertisements of twenty-five years past.

outfits, automobile equipment. But in today's publications you find an even more amazing record—the advertisements of radio electrical appliances, foodstuffs, clothing, medicines—things which have raised our civilization to a plane higher than the world has ever known. Do you quite realize that in these advertisements you are examining a contemporary contribution to the recorded history of civilization?

It takes more than money to advertise—it takes honesty

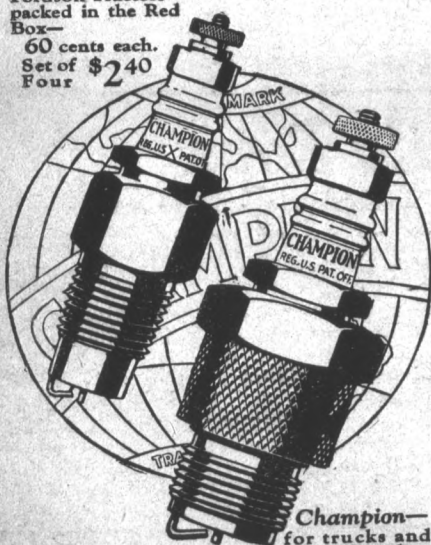


Guaranteed

Your dealer will tell you that the **Champion** guarantee is the strongest behind any article of automotive equipment. It is your complete assurance that **Champion** must be the better spark plug. That is why **Champion** outsells throughout the world two to one. And it is why **Champions** enjoy an equal preference on the farm for stationary engine, tractor and truck use.

Car manufacturers recommend, and hundreds of thousands of motorists are changing spark plugs every 10,000 miles to insure better and more economical car operation. This is true, even of **Champions**, in spite of their world-wide reputation for remarkable long life.

Champion X—exclusively for Ford Cars, Trucks and Fordson Tractors—packed in the Red Box—
60 cents each.
Set of \$2.40
Four



Champion—for trucks and cars other than Fords—packed in the Blue Box—
75 cents each.
Set of \$3.00
Four
Set of \$4.50
Six

CHAMPION
Spark Plugs

TOLEDO, OHIO



PLAN WORLD AGRICULTURAL CENSUS.

THE countries of the world so far visited, are indicating a willingness to cooperate with the International Institute of Agriculture at Rome in the work of taking the world census of agriculture in 1930, according to L. M. Estabrook, director of the world census, who has been conferring with the department of agriculture at Washington in regard to the part that the United States is to take in this project.

IMPORTANT RAILROAD DECISION.

THE decision of the interstate commerce commission that the value of the property of a railroad for rate-making purposes shall be based on the reasonable and necessary investment, and not on the cost of reproduction, under the recapture clause of the act of 1920, is held to be of vast importance, not only to the railroads, but to the farming interests and the public generally.

USE NEW DENATURANT.

BEGINNING April 1 the government requires that all industrial alcohol be denatured with "adlehol," a new denaturant that is said to smell like burning oil, and tastes like badly flavored varnish, and there is no way of removing the taste or the smell from the liquor. It is believed that this will limit the bootleggers' supply of intoxicants to the vile, death-dealing product of the illicit still.

SECRETARY FAVORS ARGENTINE ALFALFA SEED.

WHEN the seed dyeing bill was under discussion in Congress, it was distinctly understood that all imported alfalfa seed not suitable for general purposes must be stained red. Secretary Jardine, however, has just announced his determination that, although alfalfa seed grown in Argentina is not adapted for agricultural use

in all the states east of Nebraska and north of the Tennessee and North Carolina lines, it will be permitted to come into this country if at least ten per cent is stained an orange-red color. It is believed by those who have investigated the matter, that this decision will be confusing to the farmers of the northeastern section of the country. They have been told by the dealers that all alfalfa seed, except that stained red, is suitable for seeding. This orange-red stain may lead to deception which will bring serious losses in alfalfa seeding.

FARM LOAN SYSTEM UNDER FIRE.

THE proposed reorganization of the federal farm loan system is fast developing into a certainty. It has started with the resignation of Elmer S. Landes. Former Commissioner Robert A. Cooper and Edward E. Jones are also slated to go. This will leave Commissioner Albert C. Williams, John H. Guill and Lewis H. Pettijohn remaining members of the board.

There are four different groups working toward this reorganization plan. President Coolidge believes that the intermediate credit banks, with their loaning capacity of \$900,000,000, should be utilized in such a way as to meet the needs of the farmers for relief from their present depressed situation. It is understood that the farm loan board as at present constituted, fails to see how this is to be accomplished.

The treasury group wants a firmer control of the farm loan system. They want to make it a unit in the treasury department, directly under the control of Mr. Mellon. Failing in their attempt to legislate the functions of the farm loan board over into the treasury, they are now proposing to do by administration what they were not permitted to do by legislation. This will be accomplished by a change in personnel of the board.

The third group is seeking to put the joint stock land banks out of business by getting men on the farm loan board who are unfriendly to these banks. This group, composed of the

farm mortgage bankers, tried two or three years ago to destroy the joint stock land banks by legislation denying them the right to issue tax-free securities. This attack ended in failure.

The fourth group is made up of farmers who want the farm loan system to function more efficiently, but who insist that it shall remain in the farm loan board as now constituted, and be administered by men who are familiar with the needs of agriculture, not by Mr. Mellon and his treasury department officials.

The American Farm Bureau Federation, National Grange and other farm organizations, admit that the present farm loan board is not functioning perfectly, and that there is some disagreement among the members, as is the case with the interstate commerce commission and other administrative boards, but they want the reform made by strengthening the board, not destroying it, or making it a rubber-stamp adjunct to the treasury. They are resisting the removal of any of its functions to the treasury, and every move that is being made to weaken or destroy the joint stock land banks.

Under its present management, the federal farm loan board has maintained a high standing in the credit market. Its securities are readily purchased by conservative investors. Claims of treasury officials that larger control by the treasury over the farm loan system to maintain confidence of the investing public in the farm loan bonds are not well founded.

ARMY RATIONS FOR HORSES CHANGED.

THREE years of experimental work in feeding has led the army to prescribe a new ration for horses. Formerly there was one ration for garrison and field. But the investigators found out what every practical farmer well knows, that horses require more food when in active work, than when confined in comparative idleness in the stable.

The grain ration for the draft horse is to be reduced from fourteen to twelve and one-half pounds in garrison, but will be left undisturbed when he takes the field. His hay allowance will be cut from seventeen pounds to fifteen for garrison duty, but he will be given sixteen pounds when on the march. The three and one-third pounds allowance of straw to bed down the draft horse at the garrison, will be increased to five pounds.

It was the conclusion of army experimenters that by keeping the horse comfortable in his stall at all times, and warm in winter, much of his energy can be conserved, so he does not need so much grain.

PROTECTS AMERICAN CROPS.

THE quarantine and health regulations are proving to be as effective agencies for the protection of American farm products in the domestic market against foreign competition as the tariff. Much Canadian milk and cream has been shut out on account of the presence of typhoid in Montreal.

Importations of shelled corn from Canada is prohibited unless the invoice is accompanied by original certificate stating that the corn has been thoroughly inspected by the proper official, and was found to be free from infection with the European corn borer and other insect pests and plant diseases. Importations of shelled corn from Mexico is prohibited on account of the frequent presence of cottonseed in shelled corn from that country, and the attendant risk of such seed carrying the pink boll weevil.

There is a fortune for the man who will invent a hog made up entirely of pork chops; such a hog would fully meet modern city demands.

Humanitarian



DAIRY COOPERATION IN MINNESOTA.

(Continued from page 517).

ter of all grades was 44.63 cents per pound, (after all marketing costs), as compared with an average price of 44.38 cents for New York Extras, and 42.74 cents for Chicago Extras. Fifty-eight per cent of the butter handled scored 93 or better in 1926, compared with 38 per cent in 1925, and therefore carried the Land 'O Lakes brand. Less than one per cent was ripened, the balance being sweet cream butter. In February of this year, the percentage of 93-score had risen to 71 per cent compared with 62 per cent last February.

Now, it takes quality cream to produce 93-score butter. It takes sweet cream containing less than one-fourth of one per cent acidity to make Land 'O Lakes sweet cream butter. Before this organization was formed, the creamery which consistently turned out 92-score butter was perfectly satisfied. But it isn't good enough now; 93 or better is the goal, and 281 of the Land 'O Lakes creameries are now in the certified class, as over fifty per cent of their output scores 93 or better.

Ninety-eight per cent of the creameries are what is known as "haul-in" creameries; that, is the farmer hauls in his own cream, sometimes every day, never less frequently than three times a week. Very little trucking is done by these creameries. All cream is graded at the local creamery, and paid for on the basis of quality. This grading was opposed at first but is generally done now and has come about by the premium for quality. The prevailing prices for butter-fat paid patrons of these creameries averaged around forty-eight to fifty cents per pound last year; some paid up to fifty-two cents; very few under forty-seven cents. This average was for cream of all grades. Now compare that with prices paid in other localities, and the value of this quality and merchandising program is quickly apparent. In many centralizer districts, fat prices were fifteen to eighteen cents under Minnesota cooperative prices.

The butter is all assembled by the central organization at its central plant in the Twin Cities, in Duluth or Chicago. There it is inspected by government and state inspectors, scored and graded, packed in cartons if to be shipped direct to the retailers; in tubs if to jobbers or wholesalers. Chain stores and milk companies are the big outlet for printed butter, and ice cream manufacturers who have always used centralized butter are now buying Land 'O Lakes quality. The association is cutting out every middleman possible, and working to sell butter through the most direct channels.

Expert fieldmen in each of the eighteen districts into which the local creameries are grouped supervise the standardization as to fat content, color, moisture, and salt. These men promote the quality program in the field, and the inspectors check it at the assembling points. An adequately equipped laboratory in the Twin Cities plant tests every shipment of butter for composition and keeping qualities. The creamery operator who is having trouble can look to this laboratory for help and information.

This work of assisting member creameries to properly control composition has resulted in a saving of about one and one-half pounds of fat for each 100 pounds of butter sold. This appears a small item to the individual farmer or creamery, but it is an enormous saving on all the butter handled; about \$396,000 last year.

This laboratory is also active in research work. It is discovering new uses for creamery by-products, such as sweet buttermilk powder, skim-milk powder and pure milk fat which is extracted from butter. Naturally

(Continued on page 550).

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For three years past this NEW Low Model Melotte Cream Separator has been in such demand in Europe that it has been impossible to secure even ONE shipment for America.

AT LAST!—2000 have just arrived! Going fast! You must act quick! Mail coupon NOW! This great NEW Low Model Melotte retains all the best features of the World-Famous Original Melotte including the wonderful Self-Balancing Melotte Bowl—plus—the NEW Swinging Waist High porcelain-lined Supply Tank and many big NEW features that have started the whole dairy industry of Europe talking. Mail coupon now for your FREE copy of the NEW Melotte Catalog.

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**The New Sharples
SEPARATOR**

BEFORE you repair your old separator or get a new one, investigate the most liberal trade-in proposition ever offered on cream separators. The new Quiescent Current Sharples skims at normal temperature—as clean as ever accomplished and produces cream of wonderful churning ability. It is easily cleaned and its repair costs are practically nil. Special prices and proposition for those who order now. The Sharples Separator Co. Dept. F West Chester, Pa.



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LOW MODEL
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Ball Bearings

Of course the NEW Melotte separator has Ball Bearings. The always had ball bearings. It has had ball bearings for 38 Years



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WHAT paint shall I use for my farm buildings? How should it be used on wood, concrete, stone, plaster, stucco? What colors are best inside my house and out? Our booklets—"Handbook on Painting" and "Decorating the Home"—will help you answer these questions. Write to our nearest branch for the booklets. With them you get a decorator's data form to use if you desire the help of our Department of Decoration on any special painting problem.

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New York, 111 Broadway / Boston, 800 Albany Street / Buffalo, 116 Oak Street / Chicago, 900 West 18th Street / Cincinnati, 659 Freeman Avenue / Cleveland, 820 West Superior Avenue / St. Louis, 722 Chestnut Street / San Francisco, 485 California Street / Pittsburgh, National Lead & Oil Co. of Penna., 316 Fourth Avenue / Philadelphia, John T. Lewis & Bros. Co., 437 Chestnut Street.



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Build Your Barn with Kalamazoo Glazed Tile

Kalamazoo Glazed Tile Cost no more than wood. Fire-safe. Lasts longer. No upkeep. Write for free book—Better Farm Buildings. Kalamazoo Tank & Silo Company Dept. Q1 Kalamazoo, Mich.

You can build your barn or any building with fire-safe Kalamazoo Glazed Tile at the same cost as wood. Easy to erect, lasts longer, no upkeep. Warmer in winter, cooler in summer.

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Liner is a good investment. Try one.

SEED CORN

Michigan-Grown Early Varieties—Supply Limited

Polar Yellow Dent—The new Frost-Resisting Variety
Prices: Peck, \$2.50; Bushel, \$8.50.
First Choice Yellow Dent—(90 day Early Yellow)
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The two varieties below were grown in Northern Ohio

Early White Cap Yellow Dent, Peck, \$1.45; Bushel, \$5.00.
Golden Glow or Murdock Peck, \$1.60; Bushel, \$5.50. Bags Free.

This Seed Corn shows a germination of 90 per cent and over. Samples furnished free on request.

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It is not unusual to find United States Separators that have seen active service

forty-two, twenty-five, thirty years—still skimming cleanly and running easily.

We've often been told we build the U.S. too well. It's a "fault" we're proud of—even if it does mean fewer replacement sales.

Seven sizes; motor or gas engine powered. Eight convenient shipping points. For catalog or for repair parts for any style write

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AGENTS: Some desirable territories open for live user-agents. Write for plan.

UNITED STATES

Opinions & Comments

From Michigan Farmer Readers

IN DEFENSE OF THE OLD DISTRICT SCHOOL.

WHILE a high school education should be the heritage of every boy and girl, practice has not revealed the consolidated school plan as an economical means of their attaining it. In one consolidated school district the cost of operating during the year required a tax levy of \$17.35. A man does not have to be possessed of any great amount of wealth to have an assessed valuation of \$5,000. Usually an up-to-date 100-acre farm will be assessed near that figure. With the normal income from a farm of this size, a school tax of \$86.75 is certainly burdensome, as it comes in addition to a robust highway tax, together with other taxes that net a staggering total.

Possibly that in some sections widely separated from neighboring high schools, the consolidated school plan may best meet the problem of higher education for the rural districts. But its benefits in other districts where the system has been established, is highly questionable. For example, one township was so situated that there was a high school within one and one-half miles of the southwestern border, another within a half mile of the northwest corner, while on the east, a third was no more than two miles away. Not a prospective high school student in the township was more than five miles from a high school. A few years ago, however, two of the neighboring high schools became consolidated districts, and each of these districts included a liberal portion of the west side of the aforesaid township. The result was that taxpayers of this township had heretofore enjoyed excellent educational privileges at a tax rate ranging between \$2.00 and \$3.00 found themselves facing a school tax levy of \$18 per thousand. For what? Their little children who had flocked to the different district schools in bands of twenty or less, a number efficiently supervised by the district school teacher, were now massed in a huge throng at one building absolutely inadequate in capacity to properly house and instruct so large a number. Robust youngsters of fifteen or thereabouts, to whom a two-mile walk would be a benefit physically, now enjoyed the luxury of being taxied to and from the schoolhouse.

One of the chief items of expense in the consolidated plan is the transportation of the children to and from the schoolhouse. The old district schools were so placed as to be in comparatively easy walking distance for each child in the township. The teachers of these district schools were fully as competent to train and instruct the child as the average primary teacher of the high school or consolidated schools. And with usually no more than twenty, frequently less, students under her instruction, it would seem that the teacher of the district school would come in closer contact with each individual student, and for that reason it would seem that the district school for the primary scholar possessed equal, if not superior, advantages for them.

In the old horse and buggy days, or perhaps the horse and cutter days, describes it for fully, for considerable of the school year belonged to the winter months, the graduate of the district school found that negotiating the distance to the nearest high school behind old dobbie and a string of cheery bells a pleasurable activity. Put it up to the ambition and ingenuity of the individual scholar. Place a high school within reasonable distance and not a student with a desire for

a high school education but what will find a way of attending in this day, when every family has an auto if nothing else.—Greeley Everitt.

THE VOLSTEAD ACT.

IN your issue of March 19, I was much interested in Christine Zeck's article on "Prohibition." She says "she loves to debate." Too bad she did not also have an equal love for the truth. She says, "prohibition can never be fully executed." What criminal law is fully enforced? Her first statement is, "conditions in the states are worse now than in 1914." I have lived in Michigan since 1855, and know from observation that conditions are much better where I have been. For the last seven years I have been here in the D. U. R. station most of the time, have met hundreds of people, and have seen only six drunks in that time. Before the Volstead Act, it would have been a dull time that you did not see that many in one day. One man was frozen to death here on the street one night previous to 1914.

I spent the month of August, in 1925, traveling; mingling with hundreds of people, and never saw a sign of drunkenness. Is it any wonder we have law violations when we think of the thousands of liquor dealers we had, more than half of them blind pig runners? For there were more blind pigs than there are now.

When we try to dam a stream, then we realize its force. Quoting Harding's speech at Denver, "It is significant that some of the states are enforcing prohibition with less vigor after the Eighteenth Amendment was passed." Significant of what? That they were following the lead of the government at Washington.

"Drinking before prohibition was largely done indoors." Yes, and ninety per cent more outdoors than now. I have driven an auto since 1914 and have met only one drunken driver in ten years, while in the good old days I have had to leave the road more than once for drunken drivers running their horses.

"Drinking among high school scholars." I haven't personally known any such case, but have known, in the good old days, of boys being sent home from school for drunkenness, one who died of tremens before he was twenty-five years old.

Anyone who was in the temperance work before Volstead days and now know the conditions are at least ninety per cent better now.

I would ask people like C. Z., what do you recommend? A return of the saloon, or lie down and say can't, cant? I say, never surrender to the whiskey crowd. They know we have a strangle hold on them, so resort to every subterfuge.

Light wine and beer is only an excuse to sell everything, as was once done, when we had only beer license. Everything was sold under that. True, we have had many dishonest officials. We have gotten rid of many, too. If we will use the same energy to get rid of the booze that was used to stamp out the cattle plague, (and this is much worse), or even enforce the game law, or eradicate the corn borer, we will soon have a generation free from intoxication.

Our enemies say, "give us government control." That is just what we are giving them, and it is what makes them squeal. We have it driven into back alleys, low dives, and fashionable immoral dens of vice. Let our motto be, "no party but for the right, and never say can't."—C. A. Bullock, Genesee County.

POSTS IN CONCRETE.

I am going to build a post barn with cedar posts. Would it be better to fill up around the posts with cement, or would they decay just as quick as they would in the ground?—C. W. S.

It is usually not desirable to place wooden posts in concrete. Either the post will swell and crack the concrete, or shrink and allow water to run between the concrete and the post. One of the best known methods to preserve timbers placed in the ground is to treat them with creosote, either a brush treatment or open tank treatment. We are sending you a U. S. Bulletin, "The Preservative Treatment of Farm Timbers."—F. E. Fogle, M. S. C.

STAND OF JUNE CLOVER.

I plowed under a crop of June clover seven inches deep one year ago last fall. I put it to wheat. If I plow it this spring again about seven inches, and put it to oats, would I get a catch of clover? Will it seed itself?—S.

In case the June clover crop which you plowed under is fairly well set with mature seed, you would stand a good show of securing a seeding by plowing again at the same depth. If there was not considerable seed plowed under, you would not stand very much of a show. Usually it is better to sow some seed unless you are quite certain that an abundance of seed is plowed under.—C. R. Megee.

SELF-SEEDING SWEET CLOVER—SOY BEANS.

I have a field of sweet clover that went to seed last fall and was not cut. The seeds have all fallen off and are thick on top of ground. Some of them are starting to break open, but others haven't, and are still in the hull. Will they take root in time to make hay this year? I am on a rented farm and want to get the best results possible from entire farm. I have been thinking of plowing shallow and sowing oats this way. I would like to get a crop, and good seeding also. Please advise as to what would be most profitable in this case.—D. J. S.

Only under favorable conditions is it possible to secure a crop of hay from sweet clover the same season that the sweet clover is seeded.

It is quite likely that you will secure a good seeding of sweet clover under the conditions you mention; however, your prospects would have been somewhat better had you covered the seed with a spike tooth harrow.

In case you are desirous of a crop of hay this season, I would suggest soy beans or a mixture of oats and peas. Soy beans should be sown the last of May or the first of June, in twenty-eight-inch rows at the rate of thirty-five pounds of seed per acre. The Manchu, Ito San, and Black Eyebrow varieties are well adapted to Michigan conditions. A mixture consisting of a bushel of oats and a bushel of peas sown at the rate of two and one-half bushels per acre frequently should be sown as early in the spring makes a fair hay crop. This mixture as the soil can be prepared.

Soy beans are ready to cut for hay about the first of September, while the oats and peas are ready to cut for hay during mid-summer.—C. R. Megee, Associate Professor of Farm Crops.

The hen-pecked husband who sought the movies as a place of silent entertainment may have to seek his solitude elsewhere. Talking movies in which the simultaneous timing of action and sound is assured, has recently been demonstrated by the General Electric Company. The process involves only the addition of a sound-reproducing apparatus and a loud speaker suitable for auditorium use, and records the picture and sound on the same film. This is different than a Vitaphone, which employs a disc record.

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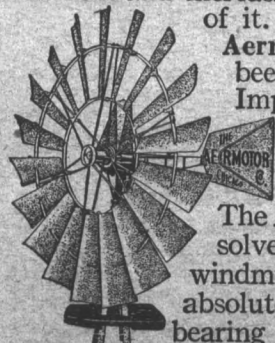
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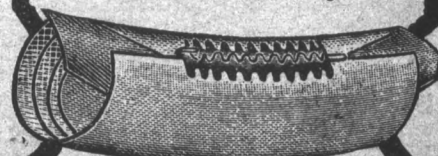
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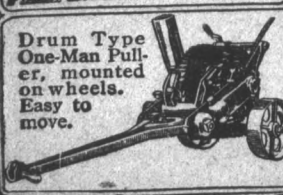
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ORCHARD AND GARDEN

GINSENG.

THE culture of ginseng should be taken up with some caution, as there are several difficulties to be met with. The condition for growth must be about like that in its native habitat—the forest. The soil should be one which nearly approaches leaf-mold of the forest for best results, though good crops have been raised in fairly sandy soil containing the proper amount of humus. The soil should be well-drained. It is usually planted in beds, these being covered by an overhead lattice work formed by nailing laths to scantling supported by posts. The bed should be securely enclosed by a wire fence. The plants may be started from seed, or young plants may be bought and set out. Write to the "Ginseng Journal," Arrowsmith, Illinois, for a sample copy in which appears notices of parties who can supply the seed, etc. Seed requires a resting period of eighteen months before it will grow. They are usually stratified in clean sand. The seeds may be broadcast in the beds and raked in, preferably in the fall. The beds should thus be mulched during the winter. Roots are dug when they are five or six years old; profits from the business are, therefore, slow in coming. When one bed is harvested, young roots are put in to replace those taken out.

There are certain diseases affecting ginseng plants, especially a blight. It is necessary to be on the watch-out for this, as it may take the plants very quickly.

There is money in the business for those who are willing to give it the necessary time and attention. Anyone interested in the culture of ginseng should get Government Bulletin No. 551, entitled, "Cultivation of American Ginseng," from Washington, D. C.—H. T. Darlington.

CURRENTS AND GOOSEBERRIES FOR THE HOME GARDEN.

THESE two fruits, favorites with commercial growers in many parts of Michigan, are quite often absent from the home garden. This should not be the case. Considering their ease of culture, and the bountiful yield from a few well-cared-for bushes, they should be found in every home garden in this state. Who does not like currant jelly, and who can turn away from gooseberry pie? Certainly, they are more desirable fresh from one's own garden—so resolve now that you will not let this planting season pass without planting at least enough currants and gooseberries in your garden to supply the family table.

These two small fruits are quite similar in their growing requirements. The ideal condition for both of them is a cool, moist, rich soil, but the absence of such surroundings should not deter anyone from planting enough for home use. As they do well in partial shade, they may be planted among the fruit trees or along the grape row. Along the garden fence is another good place for them, but wherever they are planted, arrange it so the bushes may be cultivated. It is possible to grow good crops of these fruits without cultivation but, in that case, the bushes should be mulched quite heavily throughout the growing season. Mulching induces formation of feeding roots near the surface of the soil so the plants are very apt to suffer from want of moisture during prolonged dry periods if artificial watering is not available. All in all, frequent and thorough cultivation will probably prove more satisfactory for Michigan conditions.

One- or two-year-old roots, prefer-

ably the former, should be used. Commercial growers have rather set rules governing all planting operations, but these may be ignored to a certain extent in the home garden if about twenty or twenty-five square feet is allowed for each currant or gooseberry plant. Pruning is not an exacting task with either of these fruits. Keeping the plant cut back to ten or twelve vigorous canes will usually be about all the pruning necessary. About the only trouble the home gardener is likely to encounter in growing these fruits, is leaf-eating worms and cane borers. The former may be controlled by spraying or dusting the plants with arsenate of lead. The only way to reach the cane borer is to cut out and burn all infected canes.

In the home garden, quality should be the main consideration in choosing varieties to plant. In gooseberries, Oregon Champion, a cross between the English and American types, is a favorite sort. Downing and Houghton, of true American type, are more dependable in our climate and, for that reason, they are our most popular varieties. White currants never have been popular in this country, but where folks have acquired the taste for fresh currants, the variety called White Grape is a favorite in home gardens. Wilder, London Market and Perfection are favorite red varieties for the home garden.—C. W. Wood.

INJURY BY MICE.

Is there anything that can be done for apple trees that have been girdled by mice?—B. R.

It is generally possible to save trees which have been girdled, by what is known as bridge grafting, but this cannot be done until the latter part of April or early May, when the sap has started.

For bridge-grafting, the cions should be well ripened, and if suitable cions of last year's growth that are sufficiently long for the purpose cannot be secured, it is possible to use some of the two-year-old wood, provided the bark is succulent. The edges of the bark should be cut back to where it is in union with the wood, and cions should be inserted every two or three inches around the trunk.

The cions should be made about two and one-half inches longer than the distance between the edges of the bark, and the ends should be cut wedge-shaped, the side which is to be against the trunk being slightly longer than the other. The bark should then be slit so as to form flaps about as wide as a cion, and the wedge-shaped ends of the cions should be slipped underneath. They should be held in place by means of brads driven through the bark and cion, into the trunk. The cion, itself, will form a slight curve, and will usually be at the center, a half-inch or more away from the wood.

Before inserting the cion, it is advisable to have the girdled portion painted with linseed oil and lead paint, avoiding any of the so-called "barn" paints, which usually contain petroleum. When the cions have been firmly tacked into place, the points where the grafts have been inserted, should be covered with grafting wax. It will also be advisable to bank earth around the lower portions of the cions, and if the girdle is not too wide, it may be well to extend it to cover all of the girdled portion.

While the grafting should be delayed until about the first of May, it will be well to trim the edges of the bark and paint the wound at once, and at the same time, if they ground is not frozen, bank the soil about the trunks.—L. R. Taft.

PLAN FOR A PERENNIAL GARDEN.

THERE are several points I keep in mind when planning for the perennial garden. It must not be in the way when plowing the other garden, but must be handy. It must contain all the special crops and the herbs that will be of use, for it is to be permanent and we want it as useful as it can be made. For the horseradish and such crops as salsify and parsnips, which are hardy, and we want often to keep in the garden over winter, but which we plant new each year, we select a place that can be plowed without bothering the rhubarb, asparagus, and the other permanent plantings, yet will not interfere with plowing the other garden, which we often want to do in late fall, or perhaps in early fall, and sow to buckwheat or rye. Then, as these crops are to occupy the same spot for years, we work the ground just as deep as possible and enrich it well. For asparagus and rhubarb we make the soil especially rich, for they are heavy feeders.—L. H. Cobb.

GOLDEN SEAL.

GOLDEN SEAL (*Hydrastis canadensis*) is a native plant growing naturally in moist woods, in about the same situation as ginseng. Botanically, the plant belongs to the Buttercup family. Since about 1900, this plant has been cultivated more or less for its roots, which are used in medicine. It requires about the same condition of shade as ginseng. In fact, a ginseng bed may be used for growing golden seal. The soil should be six to eight inches deep, loose and rich in humus. It should be renewed annually by the application of a mulch and should have thorough drainage. The beds may be constructed about four feet wide, with eighteen-inch walks between. Propagation is by seeds or cuttings of the rootstock. It is probably best for a beginner, however, to buy young plants. Anyone interested in procuring these should write to the "Ginseng Journal," Arrowsmith, Illinois, for a sample copy, giving names of growers. If seeds are used for propagation, they are stratified in sand and leaf mold, as for ginseng. The roots should be gathered in the autumn after the plant has gone to seed. These are yellow, but turn to a yellowish-green on drying, becoming crooked and wrinkly, losing about two-thirds of their weight and becoming brittle. Production is at the rate of almost 1,500 pounds of dry roots per acre. After gathering, the roots should be carefully cleaned. The drying should be done very carefully. They should be spread out in a thin layer on a drying frame, and turned several times daily. When thoroughly dry they may be packed in dry sacks for shipment. For more detailed information, the prospective grower should consult Plant Industry Circular 6, U. S. D. A., 1908.—H. T. Darlington.

TOPPED CEDAR TREES.

I have two cedar trees measuring five feet high. About two and a half feet has been cut off the tops of these trees. Can these tops be grafted on the trees?—W. R. C.

I do not think it would be practical to try to graft cedar trees which have been topped. It is possible to graft this variety of tree, but the chances are rather small unless it is properly done, and unless the cuts are fresh.

If you would like to attempt this, I would suggest using the Cleft or Saddle graft, as you would in grafting apple stock. Bind the graft together with raffia. I think, however, that if you will trim your trees back to the nearest side branch, that you will be just as well pleased with the results. When the trees are so trimmed back, the side branches will come up to form new limbs and restore the original shape of the tree. This latter method is by far the best way to handle this situation.—R. F. Kroodsmas.

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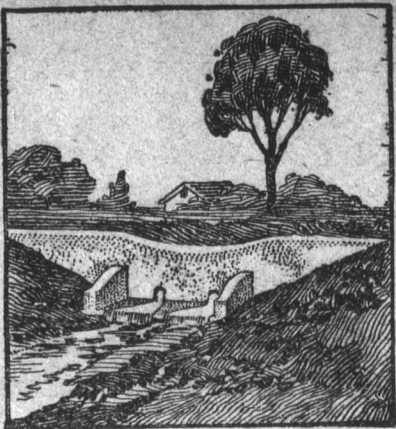
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SASSAFRAS FENCE POSTS.

Is sassafras good for fence posts? About how long will they last?—J. M. Sassafras is a good fence post wood. Although it is not to be compared to black locust, osage, orange or catalpa, it is better than most other woods found in the farm woodlot. Sassafras posts last nine or ten years, at least. Their lasting quality depends, to a certain extent, upon the size of the post. The durability part of any wood is the heart wood. The largest amount of heart wood, of course, is to be found in the older and larger size of trees.—R. F. Kroodsma.

BELLADONNA SEED.

What is the best way to harvest belladonna seed, and how can one dispose of it?—C. M. C.

The berries of the belladonna plant are picked when fully mature, and allowed to dry so that the dry pulp may be separated from the seeds. One can get a good bulletin on the handling of belladonna by writing to the U. S. Department of Agriculture, Washington, D. C., and ask for Farmers' Bulletin No. 663.

In regard to disposing of it, we are not quite certain what is meant. If finding a market for it is meant, it

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All service questions are answered by mail. Therefore, we cannot give service to questions when no name and address is given. Neither can we promise publication, as we print only a very small number of the questions received.

would probably be advisable to write to such a firm as Parke, Davis & Company, of Detroit, or the Lilly Drug Company, of Indianapolis, Indiana. You might also write to the Crude Drug Company, Muskegon, Michigan. Possibly they might handle the seeds.

Since the war there has not been so much of a demand for the seeds of this plant. At present we do not know what the seed is quoted per ounce. During the war it went up to as much as \$5.00 per ounce.—H. T. Darlington.

FORECLOSURE OF MORTGAGE.

B. wishes to rent a farm from A. C. holds a mortgage on the farm. Can C. take the crops from B., in case he forecloses before the lease which B. holds expires? Does C. have a legal right to rental money, instead of A.? Neither A. nor B. will live on the farm.—E. L. N.

A mortgagor cannot give a lease which shall be valid and extend beyond his own title. The mortgagor is entitled to the rent and possession during the entire period of the equity of redemption, and his tenant is protected during that period. After the equity of redemption has expired, the purchaser at the foreclosure sale may oust the mortgagor and his tenant by writ of possession.—Rood.

A RENTAL ARRANGEMENT.

Which is the best method of working a farm of 300 acres or more, on shares or partnership with owner of the land? How, or on what conditions, should the owner invest in implements and stock in order to get one-half of the income? The owner is willing to pay half of the hired help. Would it be a fair proposition for each to pay

half of the running expenses and furnish half of the stock and implements, the owner paying for clover seed, and each one paying half of other grain seed, also, the owner paying for work done on buildings and fences, in fact, running the farm as if it were his own?—B. A. F.

The one-half share lease should be satisfactory. Under this method of rental each party receives one-half of the revenue from the products produced on the farm. When live stock is kept, the landlord furnishes the land and one-half of the productive live stock.

The tenant furnishes the labor, the horses, and all, or part, of the tools, and one-half of the productive live stock. Expenses, such as feed, seed, twine, fertilizer and machine hire, are borne equally by both parties. When a complete crew goes with the threshing machine, or other machine hire, it is becoming a common practice for the landlord to bear his share of such expense. Each party bears the taxes and insurance on his own property.—F. T. Riddell.

CRIMINAL LIABILITY OF MINORS.

What is the law in regard to arresting a minor for trapping fur-bearing animals before the season is open?—R. T.

An infant or an adult without sufficient brain development to know right from wrong, is not liable criminally for his acts. In an ancient case, a girl of thirteen years killed her mistress, and because she hid the body the court held that she had the sense of wrong, and was therefore liable criminally. In another case, a child of nine years killed another and hid himself, and excused the blood on his clothes by saying he had nose bleed, and the court held this way sufficient manifestation of guilt to convict him. More recent cases have established a more lenient doctrine. By the statutes of this state, (Compiled Laws 1915 Section 2011, as amended by Public Acts 1921 No. 16), persons under the age of seventeen years who violate any laws of the state, are declared delinquent children, and jurisdiction against them is given to the probate court.—Rood.

REGULAR RENTAL PLAN.

What are the regular rates on renting farms in Michigan? A man wants to rent his farm to me. He declares it is the rule for the renter to furnish a third of everything and receive just a third. He also declared that it was not the rule for the renter to have a separate garden. I do not believe it is the rule for the renter to furnish one-third of the feed until the crops are grown, but he declares it is.—J. M. M.

The type of lease you refer to is called the landlord's two-third share lease, which provides that the landlord furnishes the land, all personal property, and the tenant furnishes the labor. Expenses such as feed, seed, twine, fertilizer, and machine hire, are often borne in the same proportion as the income, that is, the tenant bears one-third of such expense and the landlord two-thirds.

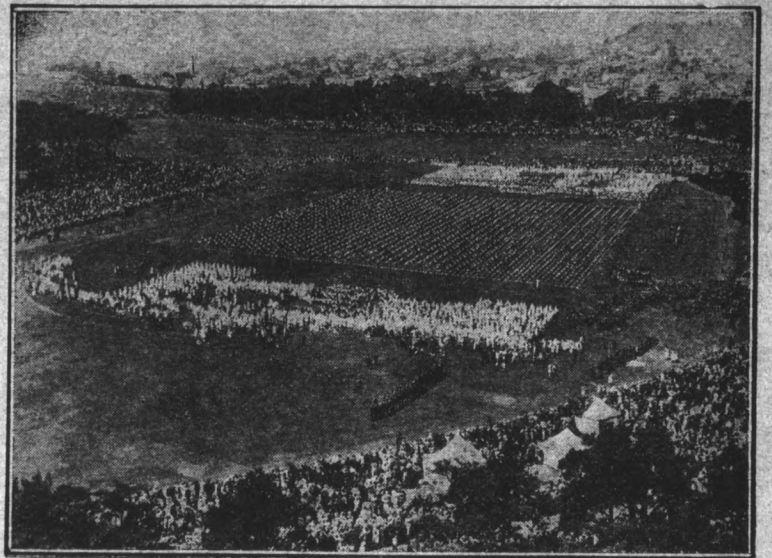
It is the general practice for the tenant to have a garden, and what milk and eggs he needs for family use. Sometimes he receives products, such as timber for fuel, in a limited way.

Relative to the feed requirements, it is more satisfactory for the renter to furnish his share of feed from the outset. Arrangements can be made between landlord and tenant to care for this in different ways. For instance, if the landlord has sufficient feed on the premises, he could loan the tenant a share, which could be paid back in money or in feed at the termination of lease.—F. D. Riddell.

WORLD EVENTS IN PICTURES



A modern William Tell, Captain A. H. Hardy, famous trick rifle and revolver shot, shows the California police how to shoot an egg off a man's head.



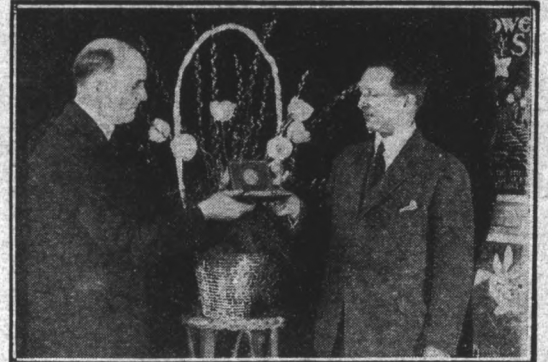
A gala performance of school boys was given in honor of the Duke and Duchess of York on their recent trip to Rotorua, New Zealand. The Duke and Duchess are touring British possessions.



Huston Ray, pianist, has developed the synchronization of sound waves of music with penetrating rays to demonstrate its healing value.



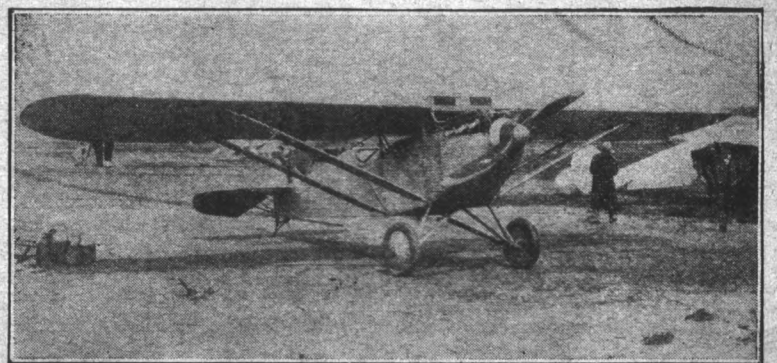
Joan Zockton, one of England's most beautiful movie stars, is planning to come to U. S.



Secretary of Agriculture Jardine awarded the Calvin Coolidge medal to John Sheepers for developing the Darwin tulip.



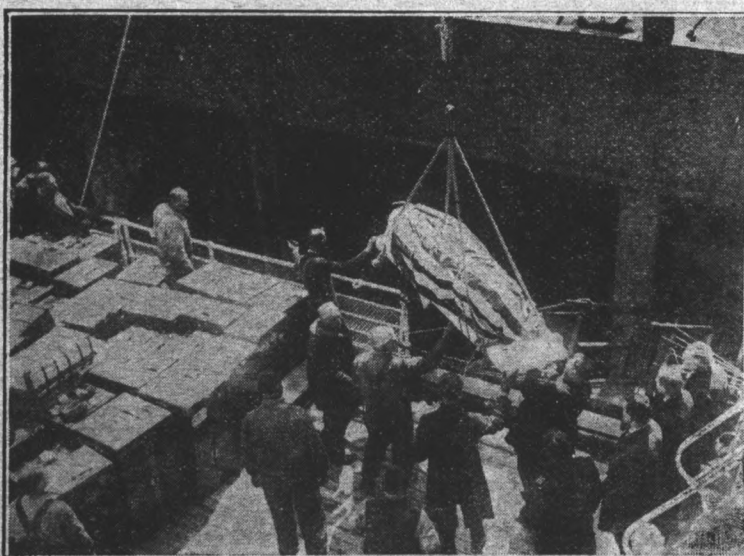
This picturesque view of a drill outfit shows how they plant their grain out West. Such a complete outfit gets grain into the ground with considerable rapidity.



Charles A. Linbergh will attempt a New York to Paris non-stop flight in this land monoplane, carrying no radio set, and will compete for the \$25,000 Orteig prize.



Chauncey Depew, president Florida historical society, sponsors Ponce de Leon celebration.



The two American "good will" flyers, Captain Woolsey and Lieut. Benton, who were killed in a collision in South America, were brought to New York City in full honor.



It's maple sugar time and these kiddies are getting their first lesson in its making.

WHEN Fitzhugh stepped into the waiting room Jim swung around and they bristled.

"What do you want?" Jim growled. Fitzhugh was polite. "I called at the boarding house and learned that Miss Dirkin had left, so I hurried here. I must have a word with her alone."

"Do you want to be left alone with him?" Jim asked.

"No, no, never!" She drew closer to Jim.

"That settles it, then," He faced about and looked into a big blue revolver.

"This settles it," Fitzhugh said grimly. "I mean business and I have no time to waste. I know why you came to this town, Mae, and I know you are leaving because you have found it. I want it—quick."

Miss Dirkin slipped in front of Jim. "Go away, Jim," she said, "I will talk to him alone."

Jim caught her by the shoulders and spun her around behind the big coal stove and in the same motion he ducked behind the stove himself. The revolver went off a sixteenth of a second too late and the bullet plunked into the wall exactly in line with where Jim had been standing. Fitzhugh leaped forward and stopped with his back toward us about six feet from our window, pausing to make sure of the next shot, for I don't think he wanted to hit Miss Dirkin. There was a second of dead silence, not more than a second, but it was enough for me to realize that he was planning to murder Jim before our very eyes.

I was too scared to speak, much less to make a motion of any kind. Then, "Here it is," Miss Dirkin's voice cried out behind the stove, and a little bag fell with a thud in front of Fitzhugh. The necklace! He was going to get away with it after all. That was almost as bad as murder.

But once again I had reckoned without Bill. As Fitzhugh stooped to pick up the bag there was a crash so near my head that I knew I was shot dead. You see, the station was built of brick and Bill had found a loose one and heaved it through the window. He is a good shot, the distance was only a few feet, and the brick struck Fitzhugh square in the small of the back. He was just starting to bend over and Bill's little surprise helped him along, so much so that he landed on his head, tried to save himself, dropped the revolver and sprawled on the floor. In less time than it takes a cat to sneeze Jim was on top of him. In the same breath I saw Miss Dirkin slip from behind the stove, snatch up the little bag and, whirling around in search of a safe place for it, drop it into the urn on top of the stove.

I saw that much and then I hipered around into the waiting room to give Jim a hand if necessary. Bill was ahead of me and had already picked up the revolver and put it in his pocket. Boy! that was a fight. Jim was heavier, but he was slower, and there were times when it looked as though Fitzhugh was the better man. Still,

The Piano Leg Complex

By Merritt P. Allen

Author of "The Wiggins Bond Mystery," "The Spirit of Spencer Spudd"

after the first minute, I saw that Jim was getting in some good satisfying punches. Clinched, they rolled over and over, pulled apart, clinched again. Back and forth, round and round, so fast and furious that Miss Dirkin climbed upon a seat and Bill and I dodged about the stove. The old station fairly rocked.

SUDDENLY they wrenched apart and stood up, blowing like whales. Fitzhugh glanced around, saw that both the revolver and necklace were gone, and baring his teeth like a wild animal he snatched up a chair, the only one in the room, and rushed at Jim. A hardwood chair in the hands of such a man is bad medicine. Jim

aboard. That was one parting where no tears were shed.

Quite a bit of excitement. Oh, yes. We hipered back into the station and lit a lamp, for there were two there, though only one had been burning. Miss Dirkin was on her knees beside Jim, who was gasping like a fish out of water.

"Jimmy darling!" she cried. "Jimmy darling!"

"Say—it—again."

"Jim darling."

He rolled his eyes and tried to grin, but it was hard work, for the wind was all but knocked out of him. "I—wish—he—had hit me—sooner," he panted.

By the time we had explained where



fell back, caught up the stove poker and sidestepping gave Fitzhugh a slashing uppercut across the knuckles of one hand. I wouldn't wonder if it broke his fingers. He let go the chair with that hand, but swinging it in the other heaved it at Jim. There was no chance to dodge it. It struck Jim in the belt and he went over back and down. The poker flew galley-west and smashed the only lighted lamp in the room.

He had fallen almost at Miss Dirkin's feet and the next second I heard Bill yell in the darkness from that direction, "Keep back, Fitz, old boy, or I'll shoot you dead. Guess I'll try a shot anyway. The revolver roared like thunder in that small bare room. And it roared again. He said later that he got a peach of a thrill standing there over Jim and shooting at the ceiling.

About then I happened to stumble over the brick and picking it up heaved it with all my might at the place where I thought Fitzhugh was. It missed him but hit the stove with a terrific bang just as Bill shot again. It was too much for the nerve of Fitzy, who probably thought the brick was a bullet and that Bill was shooting to kill, so he opened the door and legged it. "After him!" Bill yelled, and rushing out he fired the rest of the shots at the moon.

I followed as fast as I could and all but ran over the southbound train that had come down the track unnoticed in the rumpus. As there were no passengers to get off or on, it slowed only enough to throw out the mail sacks and was away again, but from the opposite side of the track we saw Fitzhugh catch the last car and swing

friend Fitzhugh had gone, Jim was able to stand up. "We had better be going back, hadn't we?" he said. "There won't be another train tonight."

Miss Dirkin walked over and put her hand in the urn on the stove. "My God!" she cried. "It's gone!"

"What is gone?" Jim asked.

"The diamond necklace!"

"Diamond necklace!"

"Yes. That was what he wanted to take away from me. I tossed it to him so he wouldn't shoot you, but before he could pick it up the fight began. I recovered it and put it in the urn so that, if he killed us both, he might not find it after all. He must have seen me. He must have grabbed it when the light went out, and taken it with him." She didn't cry, just stood there staring at us.

"But what were you doing with a diamond necklace?" Jim asked.

She looked at the floor. "I can't tell you now, Jim. I can't explain now. It wasn't mine. It was Mrs. Gale's. I was taking it back to her. Oh, Jim, I'm ruined! Why wasn't I killed!"

"Just a minute," Bill said, taking a hand. "Do you know that Mrs. Gale is at Deacon Brown's?"

"What Mrs. Gale?"

"Mrs. Addie Gale of Boston."

"What! In this town—now?"

"She pulled in last night."

"If I had known it half an hour ago!" Miss Dirkin almost reeled.

"We were on our way to tell you."

"You? What do you know about it?" She gave him a look.

BILL threw his chest almost out the window. "You see, us detectives have been working on your case for

some time. We know about the necklace and the piano leg and all that."

"Good heavens!" Miss Dirkin's voice was a croak.

"Mrs. Gale knows you are here, has seen you on the street, and is planning to have a talk with you in the morning. She will let you off easy if you give her a chance. As things have turned out, you better go and see her now."

"I never can face her without the necklace."

"It's your only chance. She'll have you arrested in the morning if you don't."

"She will anyway now," Miss Dirkin said in a pitiful little voice. "I may as well go."

"That's the ticket," Bill told her cheerfully. "You ride with me in Fitzhugh's sleigh and Speck will go along with Jim and explain a few things to him."

So in a sort of daze Jim threw in the mail sacks and Miss Dirkin's suit cases and we started back up the hill. I told Jim what I knew and he said hardly a word. We left both teams at the store and walked over to the deacon's, where the lighted windows showed that Cousin Addie was still holding forth. Bill led the way in without knocking, and when the others saw Miss Dirkin they nearly fell out of their chairs.

"Mae," Cousin Addie said in a cool voice, standing up, "this is unexpected."

"Yes, Mrs. Gale." The girl looked like a ghost.

"Did you come to see me?"

"Yes, Mrs. Gale."

Cousin Addie gave her a long look. "I can guess the reason," she said. "As these people know what has happened, you may speak before them." She raised her eyebrows in Jim's direction.

"Oh, allow me," the deacon hurried up. "Mr. Bell, this is Mrs. Gale." They bowed solemn as two owls.

"I especially want him to stay," Miss Dirkin said, and Jim moved closer to her.

It was as quiet in that room as midnight in a graveyard. Then Miss Dirkin said, "Mrs. Gale, I took your necklace." There was a little gasp here and there. "But I did not steal it," she added.

"Please explain the difference," Cousin Addie said coolly.

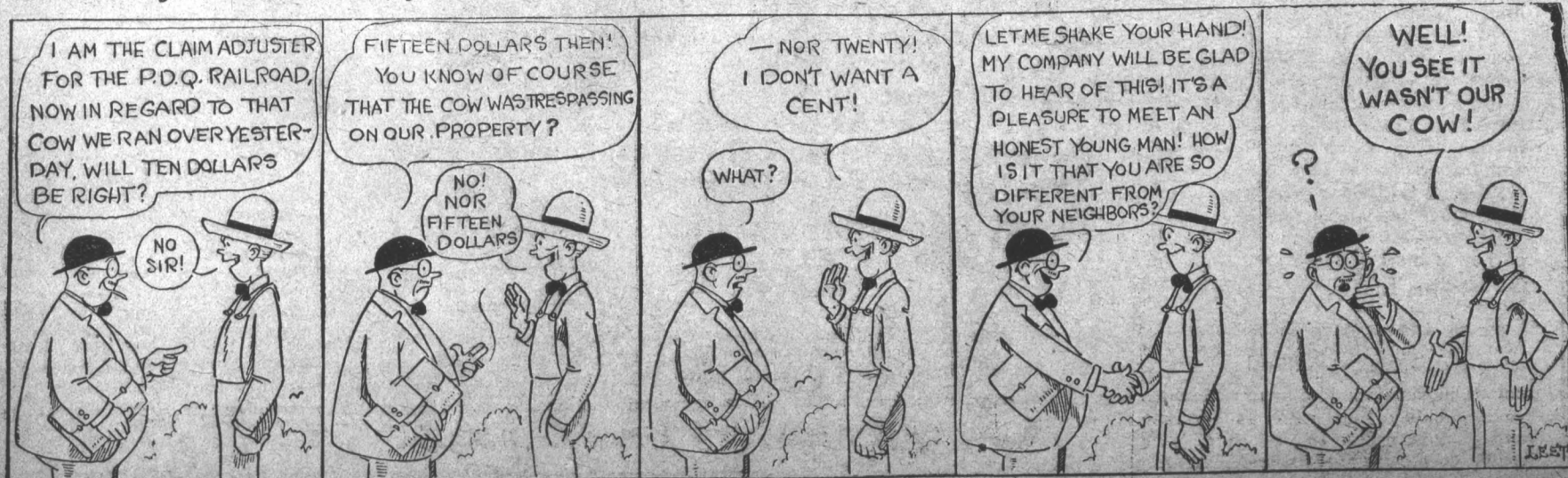
"I will try to. I thought I was in love with Claude. He pretended to be greatly interested in jewels, he said they were his passion, and in some way, I don't know how, he persuaded me to open the safe and show him your necklace. It was unwise for you to trust me with the combination."

"Extremely," said Cousin Addie.

"He asked to see the necklace for only a minute. Girls are foolish when they think they are in love. While he was looking at it we heard someone coming. I was frightened for I was doing wrong. He was nearest the door and I told him to put the necklace in the safe and close the safe door. I supposed that he did until you told

Activities of Al Acres—Al Says That it Must Have Come From the Other Side of the Track.

Frank R. Leet



me that the necklace was gone. I was nearly wild. I should have told you at once, but I was afraid to. I went to the butler. He was in a rage, and I learned more than he intended me to. Perhaps he was a little drunk, too. I learned that instead of putting the necklace in the safe he had dropped it into one of the hollow legs of the piano that was being packed. He said that he intended to return it to the safe later, but I know now that he intended to steal it. Before he had a chance to remove it from the piano leg the packers had taken the piano away and shipped it to your cousin in this town." Gasps and all sorts of exclamations from the audience. Pats on the back for the Boy Detectives who had guessed so close.

Miss Dirkin continued in a steady voice. "He tried to get the necklace out of the freight car but could not. I knew the police suspected me, but still I dared not tell you. I thought if I could get the necklace and return it to you, you would forgive me."

"Indeed I would have done so," said Cousin Addie.

"I came here as a music teacher and would have been arrested when I stepped off the train if Jim—Mr. Bell had not protected me."

Jim looked Cousin Addie in the eye. "It was love at first sight," he said.

"Oh, was it?" Her voice was twenty below zero with a north wind.

"Yes, ma'am, and it still is."

"Let me finish, Jim," Miss Dirkin said, flushing. "I have been searching for that piano leg ever since. Claude, who has been hanging around here for some time told me, wrote me, how to identify it, and I found it on a piano belonging to a Mrs. La France. I suppose it was exchanged in some way. Tonight I entered the La France home and took the necklace out of the piano leg." Everybody caught their breath and held it. "I started to take it to you in the city, as I did not know you were here, but Claude overtook me at the depot and held me up with a revolver. There was a terrible fight between him and Jim. He got the worst of it and hopped a train. But when he was gone we found that in the dark—the light had been smashed in the fight—he had found and taken the necklace." She stopped, then went on, "That is the truth. Now arrest me."

"Shall I summon the sheriff?" the deacon leaned over and whispered to Cousin Addie.

"You sit still and let me think," she snapped.

"Telegraph ahead and nab the butler," Cash burst out, "I'll do it. What's his name?"

Cousin Addie didn't seem to hear. She was looking at Miss Dirkin and tears were in her eyes. "Oh, Mae," she said, "if you had trusted me and come to me at first how gladly I would have forgiven you. But now!"

"I don't expect you to," Miss Dirkin said quietly.

"It would be so easy if you had brought me the necklace."

"Is that a whiz?" Bill suddenly piped up from a corner.

"A what?" Cousin Addie looked at him.

"Would everything be all right if you had your necklace back again?"

"Yes. Certainly."

Bill swaggered into the light, scowling like a pirate, the big blue revolver in one hand. Mrs. Brown squealed and Rupert turned pale.

"Mercy, William, where did you get that gun?" Ma asked.

He tossed her a glance out of the corner of his eye. "Oh," he said, sort of careless, "I took that away from the butler."

He stepped nearer to the lamp so everyone could surely see him; and from a pocket he took a little bag and laid it in Cousin Addie's lap. "There's your necklace," he said, and walked slowly, you might say strutted, back to his corner.

"During the fight I picked it out of

the urn on the stove," he told me on our way home that night. "Yes, I suppose it was mean not to tell Miss Dirkin sooner, but she's happy enough now to make up. What's the use, Speck, of handling a case if you can't wind it up in style? I've got what is called artistic instinct." Which may be true for all I know about it.

THE END.

SYMPTOMS.

"Pardon me, professor, but last night your daughter accepted my proposal of marriage. I have called this morning to ask if there is any insanity in your family."

"There must be."

LAUGHTER WILL OUT.

Teacher—"Willie, was that you laughing?"

Willie—"Yes'm. I was laughing in my sleeve, but didn't know there was a hole in it."

Over 500 new hospitals have been established in the United States in the past five years.

While the general level of farm prices of agricultural products on March 15 was 126 per cent of the pre-war

level, as compared with 127 per cent on February 15, and 140 per cent earlier, the index of purchasing power of farm products in terms of other commodities advanced from eighty-one in January to eighty-two in February. This is due to the decline in other commodities.

Sweet clover is a biennial, or two-year crop, producing a comparatively small amount of growth the first year, and an abundance of growth the second. Seed is formed the second year, and this terminates the growth of the plant.

A drop of water may contain as many as 100 forms of life visible under a powerful microscope.

Portions of Egyptian mummies were used by medieval physicians in concocting fantastic medicines.

The Texas Longhorn steer has become so rare that a Texas zoo has obtained one as a curiosity.

The vacuum cleaner is being used to groom horses in stables of Norway and Sweden.

Princeton University has acquired a fossil fish 400,000,000 years old.



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Calumet	Marquette
Caro	Monroe
Cheboygan	Muskegon
Coldwater	Niles
Escanaba	Owosso
Hillsdale	Petoskey
Holland	Port Huron
Houghton	Saginaw
Ionia	Sault Ste. Marie
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Adventures of the Brown Family—By John Francis Case

The Lone Oak Stands Sentinel

YOU see that, after all, we shouldn't give too much credit to Boggs & Thurman, the real estate agents. They probably wouldn't have said anything about a mystery at the House of the Lone Oak in their advertising, for mysteries don't usually make sales. But old Captain Pettibone had put it in his will that if the heirs sold the place whoever bought must know just what might be expected.

All this the Brown family found out after they got to know Boggs & Thurman, but none of that was told in the letter sent to Beth. It had said, "If you are afraid of pirates you will not be interested in buying the House of the Lone Oak. But if you are not afraid and wish to seek the treasure chest which goes with the farm, read on." So there were Father and Mother Brown and Hal and Beth all clustered together as Beth read the letter. Mary and Little Joe hadn't begun to be interested then. But they soon were.

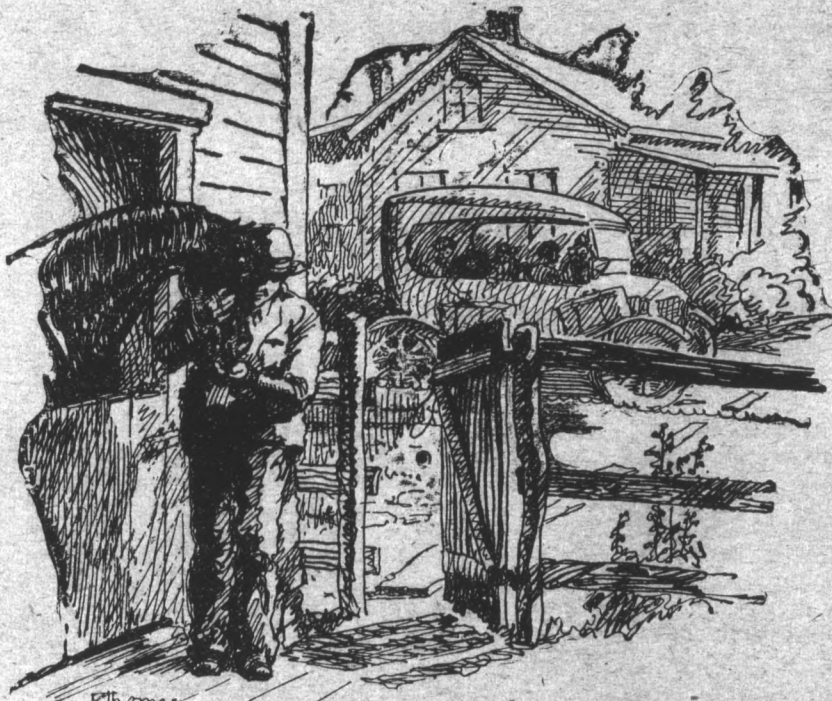
"There are not any real pirates that we know of," continued the letter, "but

the huntin' and fishin' appeals to me."

Now wasn't that proof that Henry Brown is impractical? Going off hundreds of miles into another part of the state to a farm that he'd never seen, and one with a mystery at that. But Mother Brown didn't say anything. Maybe it was the desire for a home, mystery or mystery. Maybe she wanted Father Brown to invest the money before he bought another race horse. Perhaps it was the girlish desire for adventure. Anyway, the money was sent.

And nobody was more surprised when they got the check than was Boggs & Thurman. They'd figured it would take a day's showing and palavering to sell anyone. And here was the cash in hand. The Pettibone heirs were pleased, too, I reckon. And in the beginning the Brown's were pleased, so everyone was happy. That is, unless it was the ghost of old Captain Pettibone.

It didn't take so very long for the Brown family to move. They didn't have much to sell, and after shipping the household goods they just climbed



Off on the Road to Adventure But Old Moll is Left Behind. Father Brown Bids Her Goodbye.

Captain Pettibone, who lived on the farm, and who once followed the sea, insisted that he had driven a pirate off and that he and others may come back. Personally, we don't believe there is anything to this pirate theory. And, being honest, we might as well tell you that we doubt if there is any chest of gold.

"Captain Pettibone's heirs certainly don't think there is gold on the farm or they wouldn't want to sell. But the will says there is a chest of gold and we will put into the deed that whoever buys the farm and the House of the Lone Oak gets whatever is found in the house or on the land. Now the place is cheap at three thousand dollars and would have been sold long ago if folks weren't afraid of the mystery. The land is good. There's hunting and fishing, there's good neighbors. We invite you to come and see for yourself."

Now, of course, that very same letter had been written to a lot of people but none had thrilled to it like Beth Brown. Hal, too, began to claim that he'd wanted to write all the time. But it was Father Brown who decided what would be done. "We'll just send on the thousand dollars," he said, "and cinch the place. Save the cost of a trip to investigate. I don't take any stock in that pirate and gold stuff, but

into the family flivver and headed south. Moll, the old race mare that was the proud mother of Flying Fox, would follow in due time, for a home couldn't be a home without old Moll. Shipped by express, the goods should be waiting for 'em, and so it proved.

With the weather pleasant, the trip was enjoyable, but their curiosity whetted, the Brown's traveled "in high." The new place was to be a home, a home of their very own. Mother Brown tingled with the anticipation of ownership. Their journey almost ended, the Brown's stopped to inquire the way. "The House of the Lone Oak, you say?" inquired the man, "Friend, there's something sinister even about that old tree that stands guard over a house of mystery. And you are going there tonight? Stay here and I will tell you all I know. You will not dare to stay there if you go." Now wasn't that a fine prospect for home owners who had paid their money down?

(Continued next week.)

MODERN POISONING.

Modernist—"Have you heard of the latest poisoning?"

Bystander—"No, what is it?"

Modernist—"Airplane poisoning. One drop is sufficient."

SHORT BALLOT IS URGED BY SCHOOL OF CITIZENSHIP.

THE women voters of the state have more power with the primary system of election, than they could ever hope to have by the old convention system. If we revert to the old convention system, the women would play the part of the "parsley 'round the ham." This is the statement made by Prof. James K. Pollock, Jr., of the University of Michigan before the three-day school of citizenship sponsored by the Michigan League of Women Voters and the Michigan State College in East Lansing last week. The primary system has not cured all of the old election ills, but Professor Pollock believes we should retain it and perfect and improve it. The primary has tended to weaken the lesser party, has not eliminated boss control, but it gives the voters an opportunity to exercise their power at the most important point in election.

To perfect the primary, Professor Pollock would, through a pre-primary convention or conference, develop a shorter ballot and would also adopt the use of the voting machine.

Cost, convenience, and the elimination for chance for fraud in registration was discussed by Professor J. C. Caswell, of the Michigan State College. He strongly advocated a permanent system of registration.

Why is it that our courts are in a bad way today? Because the judges of our courts are elected instead of appointed, was the answer Mr. William Lovett, secretary of the Detroit Citizens' League gave to this question, in his speech on "The Overworked Voter." Mr. Lovett recommended that the judges be appointed for life, or elected for a long term. In accord with Professor Pollock's views, Mr. Lovett strongly recommended the short ballot to produce a more intelligent and representative vote of the people.

On Friday, Mrs. Frank Kinch, a master home-maker from Huron county, discussed, "Some Lessons Learned," before the School. Mrs. Kinch is the vice-president of the Michigan League of Women Voters, and has done active civic work in her community. She will have charge of the Citizenship Day program of the Farm Women's Institute, to be held at the college the last of July in connection with the American Country Life Conference.

GUERNSEY BREEDERS ORGANIZE IN NEWAYGO.

THE Newaygo County Guernsey Breeders' Association was organized March 22, when the following officers were elected: President, E. E. Price, of Fremont; vice-president, Ford Goyings, of White Cloud; secretary-treasurer, Harry Stroven, of Fremont; directors, W. T. Evoy, of White Cloud; H. W. Frye, of Sand Lake.

The newly organized association has undertaken a number of worth while projects for the year, which include the cooperative use and ownership of better sires, the use of the cow testing association as a basis for their breeding operations and herd improvement, and encouraging boys and girls to join calf clubs.

Newaygo county is a new Guernsey community, but old in dairying. It was in Newaygo county that the first cow testing association in the United States was organized in 1905. Mr. Stroven, secretary of the local breeders' association, has had his herd of grade and pure-bred Guernseys in cow testing association work for more than ten years. W. D. Burrington, state field secretary, attended the meeting.

RADIO BRIEFS.

MINNEAPOLIS is the first city in the United States to adopt an ordinance regulating radio broadcasting and reception. The ordinance was

passed about two weeks before the President signed the radio bill. They figured that even though the radio bill did become a law, no effective action could be obtained before a year or more. In the meantime they could have radio matters in their city under control.

At the twelfth annual convention of the Illinois Agricultural Association, a resolution was adopted to take immediate steps to establish a radio broadcasting station owned and controlled by agriculture.

The new station WWNC, owned and operated by the Ashville Chamber of Commerce, claims to be the highest radio station east of the Rockies. It is located 2,496 feet above sea level.

Progress is being made toward establishing a 30,610-mile broadcasting chain by the British Broadcasting Company. Such a chain would govern the relay through nine or more stations that would reach around the world. It is estimated that the cost of the project will be \$2,500,000.

There are over a million words in the English language today, but at least two-fifths are strictly scientific terms.

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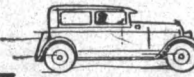

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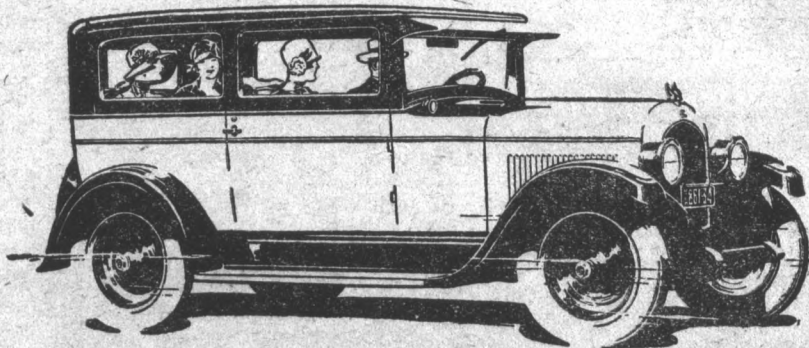
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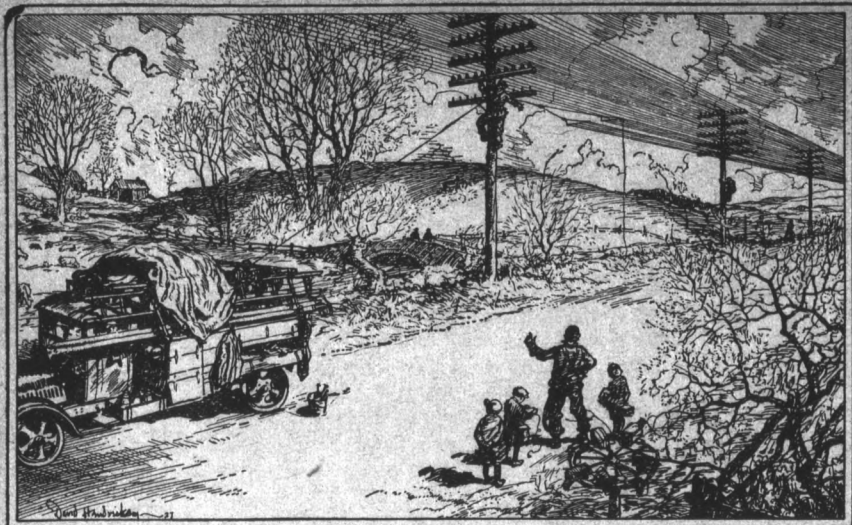
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CHRYSLER "50"



Communication for a Growing Nation

An Advertisement of
the American Telephone and Telegraph Company



THE first telephone call was made from one room to another in the same building. The first advance in telephony made possible conversations from one point to another in the same town or community. The dream of the founders of the Bell Telephone System, however, was that through it, all the separate communities might some day be interconnected to form a nation-wide community.

Such a community for speech by telephone has now become a reality, and the year-by-year growth in the number of long distance telephone calls shows how rapidly it is developing. This super-neighborhood, extending from town to town and

state to state, has grown as the means of communication have been provided to serve its business and social needs.

This growth is strikingly shown by the extension of long distance telephone facilities. In 1925, for additions to the long distance-telephone lines, there was expended \$37,000,000. In 1926, \$61,000,000. During 1927 and the three following years, extensions are planned on a still greater scale, including each year about two thousand miles of long distance cable. These millions will be expended on long distance telephone lines to meet the nation's growth and their use will help to further growth.

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WEST UNITY WOOLEN MILLS, 108 Lynn St., WEST UNITY, OHIO.



For Home Use, Too

Relieves pain. Soothes and heals. An old-time family remedy. Keep it always handy for lumbago—backache—sore and aching muscles—cuts—sprains—bruises—and burns. At your druggist, \$2.00 a bottle.

The Lawrence-Williams Co.
Cleveland, Ohio

Woman's Interests

Another Leap to Leisure

By Floris Culver Thompson

HERE comes a time to all of us when we would like to toss an inconvenient old kitchen into the junk heap and build one just exactly as we want it! But perhaps we simply can't afford to, this spring, although at the same time we can't afford not to make the best of what we have. If Henry Ford thinks farming a twenty-day occupation, he makes no reference to woman's part in it. Still, no engineer would lay out a work-shop that permitted the miles of useless steps fostered by a large, old-fashioned kitchen. The automobile has revolutionized industry in the last fifteen years, while we homemakers have been slow, slow to save ourselves through centuries of wasted time and effort.

What's the Purpose of the Kitchen?

Why do we spend three-fourths of our working hours in that one room? The answer takes the shape of one thousand meals a year, of three inevitable meals a day. Not only the preparation of food takes place in the kitchen, but also the clearing away after meals. Surely we should make use of every step-saving and time-saving



Little Betty Lucas, of Tustin, Mich., Believes in Having Plenty of Fresh Water to Drink.

arrangement possible in so frequented a place.

To group compactly the equipment pertaining to preparation of meals is one step ahead. Another leap to leisure is to arrange conveniently the equipment used in clearance of dining room and kitchen. For instance, supplies are fetched from cupboard or icebox, prepared at the sink or nearby table, cooked at the stove, dished up at the stove or nearby table, and carried to the dining room to be served. Clearly, this would indicate that we should arrange from left to right, (so far as is possible), the refrigerator, cupboard or pantry or cabinet, sink with drain boards, or table, and stove.

The Second Process is Reversed.

The second process—clearing away and dish washing—a right to left operation, calls for putting food away, for scraping and stacking soiled dishes on right-hand drain board of sink, washing of dishes in sink, drying or draining of dishes on left-hand drain board, and the final putting away of dishes into the cupboard.

Obviously, the distance from dining room table to sink and cupboard should not be greater than is absolutely necessary. In fact, the walking area of the kitchen should not be large—a big kitchen is a total loss in every respect. It makes extra work, and also allows space for operations other than the sanitary preparation and clearing away of meals. However, even in a large kitchen, the housekeeper can conveniently arrange her compact working centers regardless of a far corner or two left empty, where, indeed, the children may play.

Of course, you couldn't pick up a

whole pantry and fetch it to the table near the sink! But in such a case, you could, at least keep in neat jars, smaller amounts of the supplies used daily, such as flour, sugar, salt, soda, tea, coffee, on an open shelf over the table or on the table.

Call Kitchen Table to Your Rescue.

Let your kitchen table help solve your rearrangement problem. You might make a double-decker of the table itself and put a shelf below the top to accommodate the sugar, flour, a bowl, or two, and so forth. Furthermore, the table on casters or small wheels is a great step saver, in carrying supplies and dishes, and in serving dinner. While we're improving our kitchen table, let's have it a convenient height (even if we have to raise it). All working surfaces for people five feet three inches or more in height should be thirty-five inches from the floor. Near the preparation center should be hung in easy reach, the small equipment used daily—egg beater, potato masher, strainer, a sauce pan or two, and even a small aluminum mixing bowl and spoon. It requires less initiative to stir up a quick cake if a reach of the hand brings part of the equipment to you. Of course, towels, dish cloths and dish mop, soaps, and scouring agents, should be within instant touch. Nor must we forget the children's drinking cups, placed low for their convenience. Good organization, too, to keep one drawer or shelf for only the paper napkins, oiled paper, cord, scissors, and other small effects pertaining to the school lunch.

Casualty enough, we have taken sinks for granted, although we know to our sorrow that scarcely one-third of our women have that convenience. Running water intake and a drain outlet, at least, are a housekeeper's rightful heritage and she shall have them ere long. For our progressive American husbands are not like the French Canadian who, all winter long, daily chopped a hole in the ice on the lake in order to get water for his big family. Unfortunately, the lake was half a mile from the farm house. When asked why on earth he didn't put in a pump into the kitchen, he waved his arm toward the lake.

"Out there," he said, "is a well that never runs dry!"

COMPLETE COURSE IN EMBROIDERY.

WOULD you like to know how to make over fifty different embroidery stitches? The Mexican stitch,



single and double stitch, the ship ladder stitch, the Bulgarian stitch, the Queen Anne stitch, the gobelin stitch, and many, many more. If so the instructions for making them, and also the directions for making punch work and Wallachian

work are given in our book, "Complete Course in Embroidery," price twenty-five cents. Address your orders to the Stamped Goods Department, Michigan Farmer, Detroit, Michigan.

There were over 12,000 suicides in the registration area of the United States in 1924.

ECONOMIZING ON FURNITURE POLISH.

ALL housewives know how soon a large bottle of furniture polish will disappear when used in the usual way. I have found a way of making it last much longer. Instead of putting the polish directly onto a soft cloth, try preparing a number of them at once, my way. Cut enough pieces of cheese-cloth of the desired size—I prefer eighteen inches square to fill a two-quart fruit jar when folded closely. Then pour enough polish in the jar to fill it to the depth of half an inch. Roll the jar on its sides so as to get the inside well coated with the polish. Then pack the cloths in, put on the lid, and leave it a few days before using the cloths. When ready to use you will find the dust cloths well saturated with the polish, and when treated this way, one cloth will last a long time, and the others will be just as good as the first, when you bring them out, even though they have been left in the closed jar for months.—Mrs. P.

THE CURRENT.

If so my life must
Be like unto a river,
And flow within unyielding banks
Of customs Time has fused into conventions,
Grant, then, at least these waters may
Be clear,
And cool, and to the passers-by, refreshing;
Carrying in unclouded depths
No dregs of hatred, scorn—
No treacherous rocks
To rend the fragile shell of Friendship's bark;
Yet purposeful of current,
Not slow meandering, nor lazily content,
No stagnant bayous, winding channels
Leading blindly on and on;
Not yet rushing forward in a heedless torrent;
But of some constant service unto
They who dwell
Upon the grassy slope and call me friend.

FINE FOR THE HANDS.

THE temptation to use harsh soaps and pumices in an effort to keep the hands clean is one to which the busy housewife often yields. I find corn meal the best and most harmless scourer for the hands. Dip your toilet soap into water, then into the meal. Wet your hands and lather well with the mealy soap, rubbing hard before washing off. With soap and meal on your nail-brush, scrub the nails thoroughly. This treatment will leave your hands smooth as satin and perfectly grimeless. Thoroughly dry them, then rub well with your favorite hand lotion. Simply glycerine and rose-water, half and half, answers best for me. Not all skins are alike in the degree of oiliness possessed. A little experimenting will enable one to find the most soothing lotion for her individual use.—J. E. T.

GIVE CHIVES A CHANCE.

PLANT a package of chives this spring if you haven't already started these tasty bits. I use them (just cut the tops off) chopped fine with salad dressing for sandwiches.

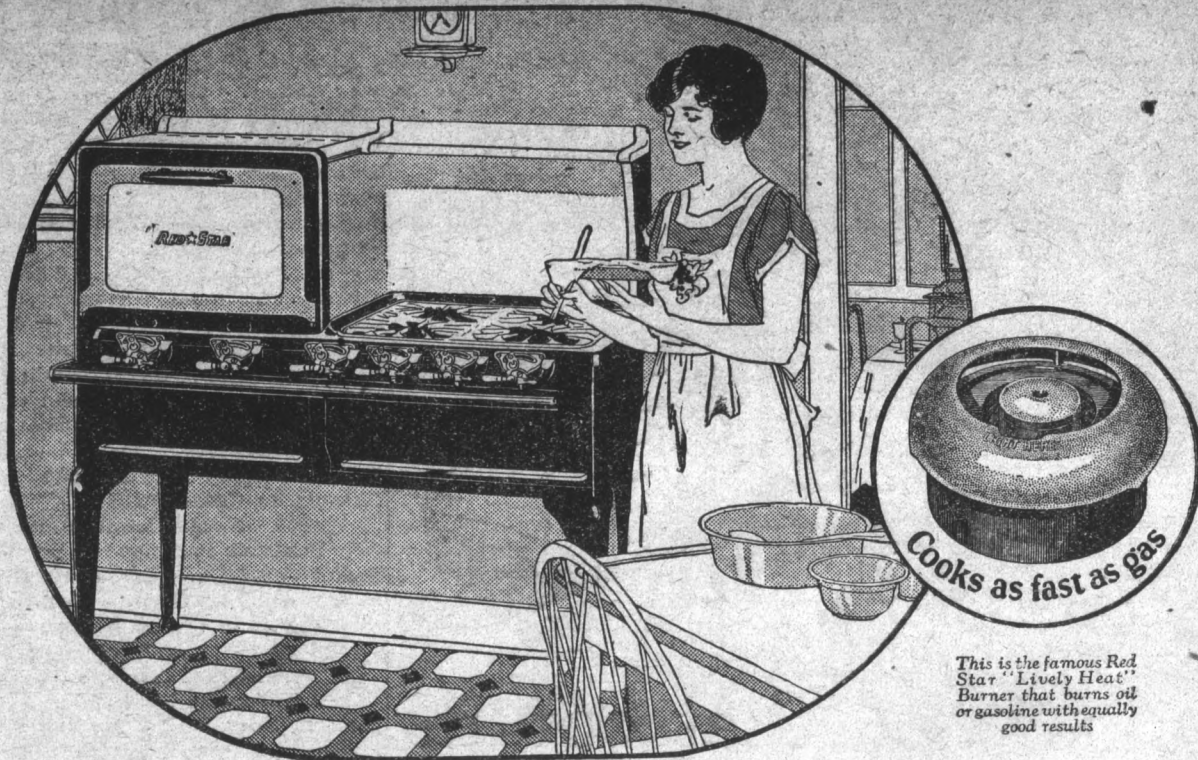
Also chopped fine for salads and soups, and notice how pleasing the onion flavor is without the strong, stomach-upsetting qualities of onion.

Toward fall you can take up a couple of pans of the chive roots and have them growing in the house all winter. They can be cut repeatedly for winter use, and after one pan seems to be getting run out, you just put it down in the cellar and use the other one.

They take up no more room than a house plan, are always green, and furnish untold delight for the palate.—Mrs. L. F.

Instead of beefsteak smothered in onions, my family calls for steak smothered in green peppers. I fry the peppers the same as onion, and serve with the steak.—Mrs. W. S. C.

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"With the Red Star... my health was restored"

—says Mrs. L. A. Pfeleger, Lafayette, Indiana

Dear Sirs: "Two years ago, I was sickly and had two small babes to care for. My husband was away all day, and an oil stove proved a necessity.

"It was really a godsend as every movement counted with my depleted energy. With it, there was no heavy coal or ashes to lift. There was no extra dirt to clean.

"My wonderful three burner Red Star gave almost instant heat for the babies' milk, and the light noon lunch. It was real Lively Heat, too—a wonderful cooking and baking heat, steadier and more dependable than city gas, especially at hours of heavy use. My wash water and irons heated quickly in a cool kitchen.

"The summer was intensely hot, the babes exacting. I did all the work for five, except heavy laundry, with no conveniences except my Red

Star Oil Stove, with its wonderful Lively Heat burners.

"Yet with the country air and my Red Star I was enabled not only to carry on, but I found my health restored by the first snow."

(Signed) MRS. L. A. PFLEGER.

Thousands of women, like Mrs. Pfeleger, will tell you the Red Star Oil Stove, with its wonderful, wickless "Lively Heat" Burners, is a godsend.

Go to the nearest Red Star dealer. See a demonstration and be convinced. Made in two to six burner sizes and at a price for every purse. In smaller sizes cost no more than the ordinary oil stove. Most dealers sell on easy terms. If your dealer is not listed below, write us. We will send name and copy of the Red Star book, free.

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S. C. White Leghorns	\$11.00	\$52.50	\$100.00
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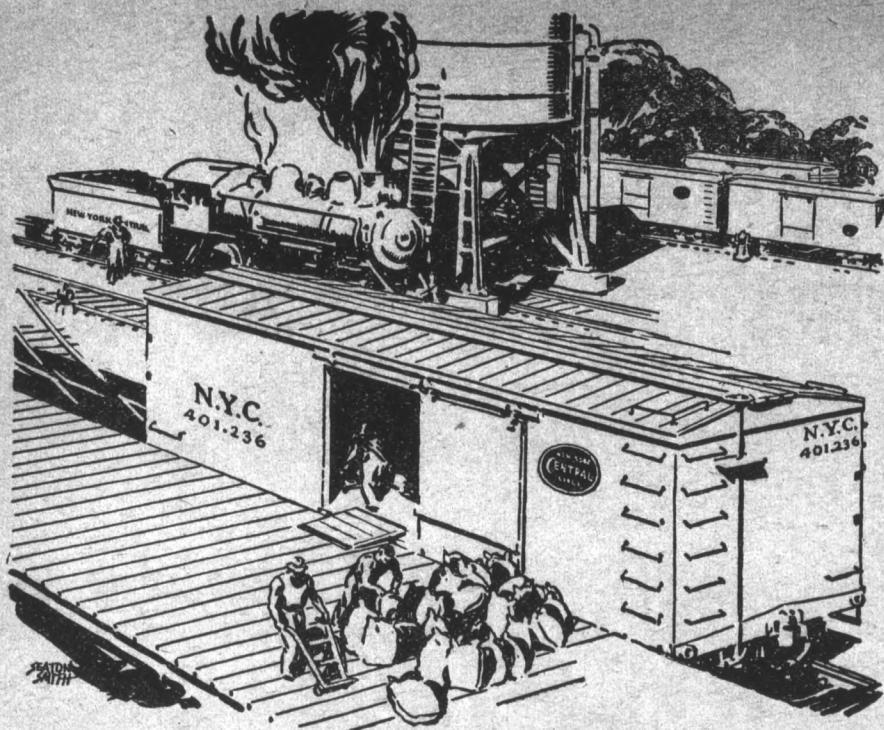
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Send for large Price List, including Ducklings. Please remember, Quality goes ahead of Price. Consider this when you place your order. No C. O. D. orders shipped. 10% will book your order, balance 2 weeks before chicks are delivered. BANK REFERENCES. You cannot go wrong in ordering from this ad direct. CHICKS Hatched from TRAPNESTED LAYERS, 8c per Chick higher than above prices.

CHICKS Hatched from BLUE RIBBON PENS, all BLOOD TESTED, 8c per Chick higher. Write at once today. BABION'S FRUIT AND POULTRY FARMS, Look Box 354-A, FLINT, MICHIGAN.



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Your source of supply is dependent upon the Quality of the Breeder's Stock. KARSTEN'S KNOWN HIGH QUALITY CHICKS. are from thoroughly culled matings. Long, deep bodied, wedge shaped birds, with wide backs and large lopped combs are used in our matings. To these birds are mated our

MATURED MALES OF 200 TO 286 EGG RECORD. Sons of the Champions of the Michigan 1924-25 International Egg Laying Contest. Your profits are assured by large egg production and longer laying life with chicks from these known producers. Our 1927 FREE Catalog describes our matings in full. Send for your Copy Today.

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HUBER'S RELIABLE CHICKS

Our 18th Year For 17 Years we have culled our flocks for egg production and quality

If better chicks could be hatched for the money we would be hatching them. There are reasons why we have thousands of satisfied customers, and that we have never been able to supply all the demand for our chicks in the past seventeen years. Our reliable chicks possess high egg producing qualities. Send us your order and you will be another one of our satisfied customers.

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Get our special combined offer on chicks and brooder stoves. We hatch thirteen varieties. Fifty Thousand chicks per week. Valuable free book on Chicks and Poultry with each order of \$10 or more.

Huber's Reliable Hatchery, East High Street, FOSTORIA, OHIO

For Easter Company

Plan Menu in Advance and Have Time to Enjoy Your Guests

THERE'S sure to be company for Easter. But Mother need not stay home from church if she has the meal well-planned the day before. The suggested menu below would save much of the last minute preparation. The vegetables could all be prepared on Saturday, and the celery, chicken en casserole, and parsnips cooked on Sunday morning. The cheese balls for the salad could be made in advance and the dessert prepared up to the point of adding the eggs. While the potatoes and dessert are baking, the rest of the meal could be prepared for the table.

Cream of Celery Soup

Chicken en Casserole

Baked Potatoes au Gratin

Panfried Parsnips Rolls

Easter Salad Apple Delight

Pond Lily Cake Coffee

Cream of Celery Soup

1 bunch celery 2 tb. butter
3 cups milk 2 tb. flour
1 tb. grated onion Salt, pepper

Dice stalks and leaves of celery and cook in very little water until soft. Mix fat and flour in a sauce pan over a low fire, add half the milk and cook slowly until thick. Add the other half of the milk to the celery pulp that has been pressed through a sieve, together with grated onion and seasoning. Cook for ten minutes and add the cream sauce mixture and cook for ten minutes longer.

Baked Potatoes au Gratin.

If the potatoes are brushed with fat before baking, the skins will be more tender. As they come from the oven, cut quickly across the top; squeeze gently in the hand; add a teaspoonful of grated cheese, and a dash of paprika. Serve at once.

Chicken en Casserole.

Prepare the fowl as for roasting. It may or may not be stuffed. After sprinkling with salt and pepper, roll

in flour and pan-fry until brown. Place in casserole together with half cup rice; two medium onions sliced; two small carrots; one cup green beans. Add one or two cups of water. Cover and cook until the bird is tender. If necessary, add more water.

Panfried Parsnips.

Partially cook the parsnips; roll in beaten egg, and then in bread crumbs. Brown in butter.

Easter Salad.

Individual salads are more attractive. On each salad plate, arrange shredded lettuce in a nest. To one cup of grated cheese, add two table-spoonsful of minced olives, and one tablespoonful of broken nut meats. Blend with mayonnaise and form into tiny eggs about an inch in diameter. Place three or four of these in the center of each lettuce nest, sprinkle with a teaspoonful of minced pimento or a dash of paprika, dot with mayonnaise.

Apple Delight.

2 cups rich apple sauce 4 tb. powdered sugar
1/2 cup jelly or jam 1/2 cup nut meats
3 eggs, beaten separately 1 cup whipped cream

Spread the applesauce, together with the jam, over the bottom of a greased baking dish. Beat egg yolks with three table-spoonsful of sugar. Fold in the whites. Spread over the fruit and dust with the rest of the sugar. Bake in a slow oven for thirty minutes, and serve with the whipped cream or maple dessert sauce.

Pond Lily Cake.

6 tb. shortening 2-3 cup milk
1 cup sugar 3 egg whites, beaten
2 cups flour Salt, flavoring
3 tsp. baking powder

Cream shortening. Add sugar slowly. Sift dry ingredients. Add dry ingredients and milk to first mixture alternately. Fold in the beaten egg whites and bake in layers or in a Turk's head pan. A moderate oven for forty minutes.



Twenty Tales from Timberland

The Easter Bunny and Easter Chick Find Their Basket—No. 15

PEOP, peep! Pick, pick! Peep, peep," came from within the little white house. "Oh, dearie me, will I ever get out of here?"

All was silent for awhile. Then, "pick, pick," louder than ever, and the Easter Chick poked his little yellow bill through the tiny hole that he had made in the side of his house.

"Oh, hum, hi, ho, hum," yawned the Easter Chick, then he stretched himself. But he stretched too far, for he broke his white house right in two.

"Peep, peep," said the Easter Chick, as he stepped forth into the sunshine.

"To find an Easter basket," answered the Easter Bunny. "Won't you come along?"

"Thanks to you, I'll come," replied the Easter Chick. So off they started in search of an Easter basket. Now, the Easter Bunny hopped much faster than the Easter Chick's short legs could carry him. But when the Easter Chick grew tired, Bunny carried him on his back. Together they searched all the afternoon but no Easter basket could they find. At last the sun went to sleep behind the hills and it grew dark. The Easter Bunny and the Easter Chick were very tired and sleepy.

"We'll make a bed in this pile of leaves and perhaps we can find a basket in the morning," suggested the Easter Bunny. The Easter Chick agreed and they were soon off to Slumberland. The sun was shining brightly when they awoke.

"Peep, peep," yawned the Easter Chick.

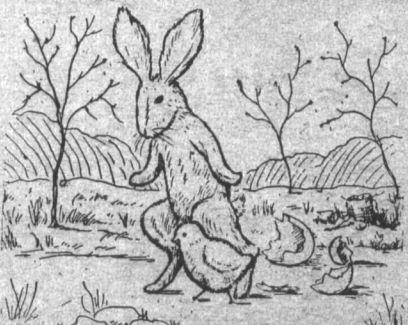
"Happy Easter," greeted the Easter Bunny, "but come, we must be on our way to find our basket." He stretched himself, rubbed his sleepy eyes, and looked about.

"Hip, hooray," he shouted, for he had just discovered that he and the Easter Chick had gone to sleep in a pretty Easter Basket the night before and didn't know it.

"Sh, sh!" whispered the Easter Bunny to the Easter Chick. "Don't move. We've found our Easter Basket. And I hear someone coming! Listen!"

Was it you, my little reader, that the Easter Bunny heard? Did you find an Easter Chick and an Easter Bunny in your Easter Basket?

Without books God is silent, justice dormant, natural science at a standstill, philosophy lame, letters dumb, and all things involved in darkness. —Bartholin.



The Easter Bunny and Easter Chick Trottled Off in Search of their Easter Basket.

He was very hungry, so he started to scratch for a worm in the pile of sand nearby.

Soon Bunny came hopping that way. "Good morning, and who are you?" said the Bunny to the Chick.

"I am the Easter Chick," answered the Chick. "Pray tell me, who are you?"

"Howdy do, Easter Chick," answered the Bunny. "I am Easter Bunny from South Timberland."

"Greetings to you, Easter Bunny," chirped the Chick, "and where are you hopping to?"

PREVENTING CHICK LOSSES.

ALL the chicks that are lost do not die from disease. Water pails and tanks should not be placed where the young chicks can roost on the edges and reach down for the water. Often they slip into the water and soon drown. Do not place brood coops on soil where sudden rain storms may drain into the coops, forming puddles in which the hen-brooded chicks are soaked and chilled. Board floors in all brood coops will usually prevent such losses.

Never build flimsy shelters for the chicks during good weather. At the first severe wind and rain storm, the chicks may gather in such shelters. If they blow down it means a lot of crushed and drowned chicks. It is better to have the flocks accustomed to seeking shelter in strongly built colony houses that are safe in most wind and rain storms.

Be careful about placing brood coops or colony houses near wheat or oat fields. Early in the morning the chicks may wander into the deep growth and become lost, wet and chilled. Such chicks may never have strength enough to return to the protection of the mother-hen or the brooder stove.

Dense growths of grass or grain may harbor weasels. If poultry range near such places, it pays best to beat through the field occasionally with a dog and gun and see if any dead chicks are found which show the marks of a weasel. A well-trained dog on a range is of great help in scaring away such pests.

Small chicks should not be permitted to go under colony houses. They may gather in heaps under the houses and become chilled by cold winds.—R. G. Kirby.

MITES DECREASE EGG PRODUCTION.

THIS is a good time to destroy the mites. Too often the farmer neglects the controlling of the mites in the winter. A great deal of blood and vitality is taken by mites, and this decreases the vigor of the hen. If the hen is not healthy and contented, she cannot be expected to lay very many eggs.

The mites may be successfully controlled in winter or summer by spraying the cracks and crevices of the poultry house with kerosene. This seems to dry quickly and is highly desirable during the cold weather. The mites are easily killed by coming in contact with the strong, penetrating kerosene. If one does not wish to use kerosene, he may apply any two or three per cent solution of ordinary stock dip.

After the poultry house has been thoroughly cleaned and sprayed, the roosts and dropping boards should be painted with a wood preservative, such as ordinary crank case oil, which tends to prevent the reappearance of the mites.

It is a good idea to destroy the lice while fighting the mites. This job is successfully done by sprinkling the hen with sodium fluoride. A pinch may be put on the head, under both wings, and rubbed around the vent. It readily destroys the lice and does not injure the hen.—H. Q. Holt.

POULTRY FEEDS.

COMMERCIAL poultry feeds differ widely in make-up and cost, due to the uses to which they are to be put, and the materials that go into them, says the chemist at the Experiment Station at Geneva, New York, where more than 250 samples of poultry feeds sold in New York were examined recently.

Many mixtures could be classified as laying mashers, others as chick-grow-

ing mashers, chick starters, special chick meals, chick fattening mashers, and scratch feeds, says this authority. All contained ingredients which were believed to be best suited to gain the desired results for which the feed was sold. The cost of the different feeds depended largely on the cost of these ingredients.

"Laying mashers usually contain wheat bran, wheat middlings, linseed oil meal, corn gluten feed, corn meal, ground oats, alfalfa meal, meat scrap, fish meal, and dried buttermilk feed, not all in any one mixture, of course, but various combinations of these materials," says the station chemist. Such mixtures sell for \$40 to \$100 per ton, and average about \$62 per ton.

"Chick growing mashers contain about the same ingredients as the laying mashers, except that oatmeal or rolled oat groats are often used in place of ground oats. Also, they usually contain bone meal or lime in the form of calcium carbonate, or both. The laying mashers contain the most protein, fat, and fiber of any of the poultry feeds, while the growing mashers contain somewhat smaller amounts of these nutrients, and the chick starters still less.

"A typical formula for a chick starter is dried buttermilk feed, oatmeal, wheat middlings, corn meal, wheat meal, and bone meal. Buttermilk feed and meat scrap are the two ingredients of poultry feeds that add most to the cost of the mixtures."

HEN CANNOT BREATHE.

My hens have difficulty breathing. They open their mouths and squawk, and cannot get their breath. They live only about two hours after they get this way.—F. M.

Examine the throat of the birds that gape and struggle for breath. The entrance to the windpipe may be filled with yellow, cheesy canker which shuts off the breath. This can often be removed with a bit of sharp stick or a knife blade. Birds breathe hard because of bronchitis and pneumonia. This is usually caused by exposure to cold, windy or rainy weather, or a lack of ventilation in the poultry house. Sometimes bits of foreign material, like straw, potato peelings, or other objects may become lodged in a bird's throat.

SYMPTOMS OF TUBERCULOSIS.

How can I tell if fowls have tuberculosis? Is there any test besides the symptoms?—S. V.

The general symptoms of avian tuberculosis are great loss of weight and wasting of the muscles, combined with lameness and swelling of the joints. The yellowish or whitish tubercles may be found on the liver, intestines or spleen. A laboratory examination is considered necessary to definitely determine avian tuberculosis.

The infected and non-infected birds may be located by means of a tuberculin test. If tuberculosis is suspected in a valuable flock of poultry, it pays to consult a veterinarian and have him carry out the tuberculin test, or make other recommendations based on the apparent physical condition of the flock.

FERTILITY OF DUCK EGGS.

How long would it be that duck eggs would be fertile after having a drake with the ducks? We had a drake from last fall, and late found out it would not mate, so we bought another drake, and in three days noticed he was all right. I heard it was two weeks. Is this so?—N. O.

It will be safest to wait ten days to two weeks before saving the eggs for hatching, in order to insure a fair per cent of fertile eggs, or eliminate the effect of previous matings. There is no definite period that will apply in all cases. Duck raisers usually avoid the loss of many infertile eggs by mating up the breeding stock a month or more before eggs are to be saved for hatching.

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POULTRY

April Poultry Notes

By R. G. Kirby

POUULTYMEN who wish to caponize cockerels should remember that the best market for capons is from January 15 to March 1. This reduces the competition from other kinds of poultry meat. The old hens have been marketed and the early broilers have not yet reached the market. The capons should be of good weight, and between nine months and a year old when they are marketed.

Large cities like Detroit, Cleveland and Chicago furnish the best market for capons. But in smaller cities, like Lansing, there is an increasing demand for capon meat for banquets, and many diners who learn to appreciate capons at a good banquet, later desire such a bird for special occasions on the home table.

Caponize Good Birds.

Another home market for capons which has scarcely been touched, is the farm home. Many farmers who do not expect to market capons will receive an increased pleasure in their business if they caponize a few cockerels for home use next winter. They will help out with the winter meat bill and prove a pleasant change from other kinds of poultry.

When the cockerels are sold for broilers, there may be a few culls not good enough to sell or ship. Do not caponize them in an effort to improve their quality. Good capons cannot be developed from cull chicks. The capon needs a long growing season, and the best of the vigorous young cockerels are the type of birds which will use their feed to the best advantage over that long period of development.

Use Large Breeds.

Leghorn cockerels lack the frame to make nice capons. The American, Asiatic and English breeds are all suitable for caponizing. The Barred Plymouth Rock is a very popular breed for caponizing, because the sexes can be separated at an early age. The single mated Barred Rocks soon show that the light plumage denotes cockerels, while the dark feathers indicate pullets. If you have ever tried to separate the sexes in a flock of White Wyandottes or Reds, before the masculine and feminine heads are apparent, you realize the difficulty of guessing right every time. And the best time for caponizing is when the cockerels are only six to ten weeks old, and weigh from a pound and a half to two pounds.

Some poultrymen report very good results from crossing Cornish Game males with Barred Rock females. The Cornish carry a large meaty breast, and have plenty of vigor, while the Barred Rock ranks high for meat production.

How to Start.

Before attempting to caponize large numbers of cockerels, it is well to remember that they require a long growing season, plenty of feed, and good housing during the fall and winter. A special market is necessary to dispose of many capons at high prices. Most local markets have their largest demand for plump hens, and the buyers have not been educated to order capons at high prices.

But if you wish to enjoy some fine poultry meat, and not risk much money or feed, try caponizing a few for home use. If the business proves satisfactory, it can later be developed. Possibly some of the egg customers can be induced to buy capons. Sometimes local dealers are glad to obtain a source of supply to fill banquet orders.

Moving the colony houses to clean

soil is a great help in reducing the danger of disease among the chicks. Some poultrymen state that chicks should be raised on the same soil only once in four years. This is undoubtedly true, if you wish to raise chicks under ideal conditions. But few poultrymen have the land to move their colony houses so that the chicks will not touch the different locations more than once in four years.

On most poultry or general farms there is only about so much acreage near enough to the farm and poultry buildings to enable the birds to receive the proper protection of the owner. You cannot place colony houses eighty rods or more from the house and barn without risking great losses from thieves, stray dogs, weasels, skunks and hawks. You cannot give the brooder fires proper attention during storms, if they are located a long distance from the house.

Rotate Ranges.

Many poultrymen find that ten or twenty acres is all they can buy or look after when poultry is their specialty, and much money is needed for buildings and equipment. It is obvious that the young stock cannot be moved beyond the limits of the land a man owns.

So it is my opinion that raising chicks on the same ground only once in four years, is ideal, but, under practical farm conditions most of us cannot do it. The land can be kept in a clover sod, or plowed and limed and planted to other crops. Part of the range can be plowed and planted in corn. This turns up clean soil and plows under a lot of the old soil. It provides a shady range for the chicks.

Other Measures.

Every effort can be made to keep old stock from ranging on the same soil the chicks use. Poultry manure can be scattered as far as possible from the poultry buildings, and used on garden soil which is fenced away from the poultry. Most of us will have to depend on zero weather in winter, and sunshine and plowing to help in keeping the soil as clean as possible for the chicks. I do not think it necessary to become discouraged if enough new soil is not available to permit raising chicks on the same ground only once in four years. I admit that would be an ideal arrangement. Moving the colony houses once or twice a year, and owning about two large chick ranges, is about all that seems possible for most poultrymen.

HENS EAT PAPER.

Please tell me why chickens eat paper. The inside of the roosting pen is lined with heavy building paper and the chickens keep picking at it. Does the paper harm the chickens?—O. E.

Hens have a tendency to peck holes in wall-board, building paper, or any kind of paper composition used on the walls of poultry houses where it can be reached by the birds. The material seems to contain mineral elements which they crave. Part of the pecking and tearing is probable due to the curiosity of the hens to try out any material which they can break loose, whether they have an appetite for it or not.

The habit is not due to any great deficiency in the ration, as hens which receive everything they need, have been known to tear up wall-board linings in poultry houses. Painting the material with lime-sulphur, asphalt paint, or any material with a bad taste, may help in preventing the de-



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struction. The only great harm that may come from the habit, aside from the loss of the material, is the crop-bound condition that results if hens pack their crops with paper or any other indigestible material.

POISONING FROM BLUE OINTMENT.

After using blue ointment for chicken lice, would fowls be good to eat, as the ointment is very poisonous?—C. A.

The blue ointment used for lice is usually mixed with equal parts of vaseline, and a piece about the size of a pea is placed beneath the vent, while a small smear is placed under each wing. I have no record of any person being poisoned by eating poultry which has been treated with blue ointment, but the material is very poisonous and I would not wish to use it on birds that were to be marketed, or used for meat within a few days.

The fact that the bird receives only a small quantity of blue ointment, and the skin is carefully washed before the bird is cooked, probably safeguards consumers of the meat. We only treat the birds that are to be retained for at least a few weeks. A hen is small in weight compared with a person, and if much of the poison affected the bird internally, it would doubtless be a very unsafe means of combatting lice.

KEEP THE PULLETS GROWING.

A PULLET will not necessarily make a good hen, even though she has the best of ancestry behind her. A whole lot depends upon the manner of development. In order to make good layers, we should aim to develop heavy appetites in the growing birds. The heavy-laying hen is always the one able to eat and assimilate a large amount of food. While this trait is partly inherited, it is largely developed. The way to do it is by developing large crop capacity in the growing pullets. This is done by forcing them to eat bulky food during the stages of development. Free range, with plenty of shade and green grass, are essential conditions in the development of the future layer. May and June are important months with the early-hatched birds. Make them consume large quantities of mash, and feed the hard grain sparingly. This distends the crop, which condition will be found mighty useful next winter when it is necessary that the hen consume enough feed in about eight hours to last her twenty-four. The reason hens often fail to lay during the short days is because they cannot consume sufficient food during the short hours of daylight. Develop the appetite and the stamina now, and you will be well repaid later.—C. H. Chesley.

ASHES FOR HENS.

Would it be harmful to my chickens if I let them have coal ashes to dust in? Would the ashes from wood be harmful?—J. G.

We empty our hard coal ashes into a metal bushel basket to cool, and later place them in the dust boxes in the laying houses. The hens seem to find bits of mineral matter in the ashes, and eat quite a lot of the material, as well as dusting in it. It seems to cause no trouble, and helps out in providing minerals for the flocks. When the bones from the table scraps are thrown into the stove, that must also add some bone-building material to the ashes.

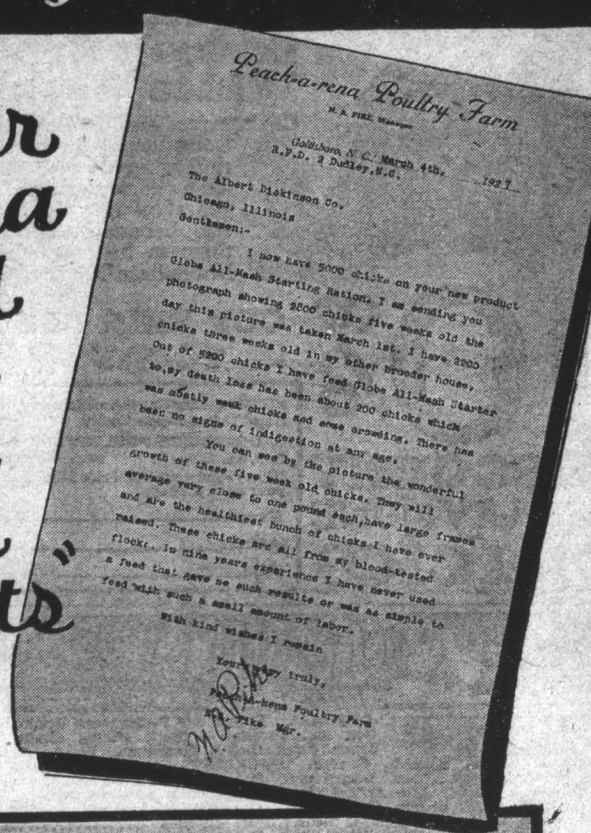
Wood ashes contain quite a lot of lye, and there are cases where hens have developed a bad crop condition from eating damp wood ashes. Of course, charcoal is fine for the birds, but I would not wish to give them access to a lot of wood ashes while confined in winter quarters.

Tuna fish caught in Japan weigh as much as 750 pounds.

GLOBE ALL-MASH

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"Never Had a Feed Give Such Good Results"



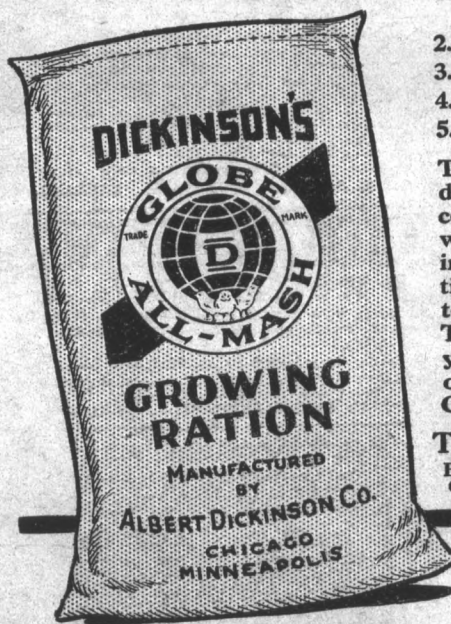
Mr. Pike brings out in his letter several points of interest to those who keep poultry for profit:

1. Exceptionally low mortality.
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5. Best results in nine years.

This is only one of the hundreds of letters that are now coming in from poultrymen who have already tested Dickinson's Globe "All-Mash" Rations. However, you don't have to take anyone's word for it. Try Globe "All-Mash" Rations yourself and judge by your own results. A Booklet on Chick Raising free on request.

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Look for the dealer who displays the Globe Sign



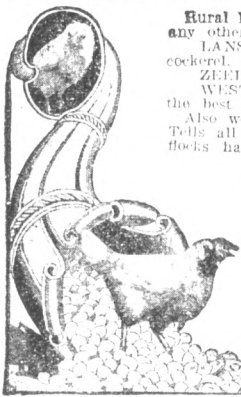
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Buy Blood-tested chicks, they cost no more. All large poultrymen demand them. We guarantee 100% strong healthy chicks delivered at your door. Two big money-making breeds, bred to live, lay and pay.

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UNEXCELLED in THEIR PRICE CLASS.
Rural Leghorns won more firsts in Zeeland 1926 show and Lansing State Show than any other pen. Read our winnings on standard production stock.
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Shipments on Monday and Wednesday of every week. Write for prices on other quantities. Wire orders promptly handled. Pullet: White Leghorns only. Free range raised. 8 to 12 weeks for shipment starting May 15th. Write for prices.
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Live, Grow, Lay and Produce Profits

Every bird in our flocks has been approved and passed by an Inspector from the Michigan State Poultry Improvement Association and the Michigan State College. All males and females have been individually leg banded. These facts, coupled with our long years of close culling and breeding are the important factors in our production of Big, Lively Chicks, that Live, Grow, Lay and Lay. And this is the reason for the genuine satisfaction about which our customers write us.

Write for FREE 1927 Catalog

Gives ALL the facts about our breeders and tells how you, too, can make big profits with poultry. 100% Live Delivery Guaranteed.
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WASHTENAW Baby Chicks Pure Bred 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. This 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.

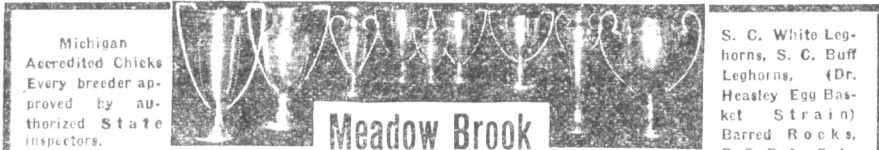
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We have prepared a big, illustrated circular which tells all about our chicks. It is worth your while to get it if you expect to buy chicks this year.

PRICES: Our prices are reasonable. Our chicks are good. Write today.
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Meadow Brook

S. C. White Leghorns, S. C. Buff Leghorns, (Dr. Heasley Egg Basket Strain) Barred Rocks, R. C. R. I. Reds.

Try chicks this year from Silver Cup Winner. The above winning made Dec. 1926 in Production and Exhibition classes in strong competition. The males and their brothers are among those heading our matings this year. We are the oldest hatchery in Western Mich. 25 years in business. Have made as many winnings in the last five years as any other hatchery in Western Michigan. Our free catalog and price lists tell all. A trial will convince you. **MEADOW BROOK HATCHERY, H. DePre Sons, Proprietors, BOX F, HOLLAND, MICH.**

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Buy Michigan Accredited Chicks from Lakeview. Official records up to 252 eggs. Mich. Egg Contest 1925, 24, 25. Every Breeder inspected and passed by Inspectors supervised by Mich. State College, Smith hatched.
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White Leghorns (Tanager) \$3.75 \$7.00 \$13.00 \$62.00 \$120.00
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Every breeder approved by State Inspectors under supervision of Michigan State College. Blood tested for White Diarrhea for the past three years. Three leading breeds, B. P. Rocks, R. I. Reds and English and American Leghorns. 100% live delivery. Write for free catalog and price list.

THE DUNDEE HATCHERY

Box A

DUNDEE, MICHIGAN

PROFIT PRODUCING CHICKS

RED ROCKS LEGHORNS R. I. REDS
MICHIGAN ACCREDITED CHICKS that are bred from proven blood lines. Every breeder wears a sealed leg band indicating official approval by authorized state inspectors. **PAY \$1.00 DOWN—BALANCE C. O. D.**
Pay for your chicks when you get them. Send \$1.00 and we will ship C. O. D. Get our big new catalog. It is free. It will help you. Choice of three profitable breeds. 100% live delivery guaranteed. First hatch Jan. 31st.
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EARLY MATURING CHICKS Of Improved Breeding and Quality

Michigan Accredited and blood tested for White Diarrhea for past three years. When better stock is obtainable we will produce it for our customers. We have B. P. Rocks, R. I. Reds, S. C. W. Leghorns, W. P. Rocks and W. W. 100% live delivery. Write for circular and price list.

MILAN HATCHERY, Box 4, Milan, Michigan

POULTRY

April Poultry Notes

By R. G. Kirby

POULTRYMEN who wish to caponize cockerels should remember that the best market for capons is from January 15 to March 1. This reduces the competition from other kinds of poultry meat. The old hens have been marketed and the early broilers have not yet reached the market. The capons should be of good weight, and between nine months and a year old when they are marketed.

Large cities like Detroit, Cleveland and Chicago furnish the best market for capons. But in smaller cities, like Lansing, there is an increasing demand for capon meat for banquets, and many diners who learn to appreciate capons at a good banquet, later desire such a bird for special occasions on the home table.

Caponize Good Birds.

Another home market for capons which has scarcely been touched, is the farm home. Many farmers who do not expect to market capons will receive an increased pleasure in their business if they caponize a few cockerels for home use next winter. They will help out with the winter meat bill and prove a pleasant change from other kinds of poultry.

When the cockerels are sold for broilers, there may be a few culls not good enough to sell or ship. Do not caponize them in an effort to improve their quality. Good capons cannot be developed from cull chicks. The capon needs a long growing season, and the best of the vigorous young cockerels are the type of birds which will use their feed to the best advantage over that long period of development.

Use Large Breeds.

Leghorn cockerels lack the frame to make nice capons. The American, Asiatic and English breeds are all suitable for caponizing. The Barred Plymouth Rock is a very popular breed for caponizing, because the sexes can be separated at an early age. The single mated Barred Rocks soon show that the light plumage denotes cockerels, while the dark feathers indicate pullets. If you have ever tried to separate the sexes in a flock of White Wyandottes or Reds, before the masculine and feminine heads are apparent, you realize the difficulty of guessing right every time. And the best time for caponizing is when the cockerels are only six to ten weeks old, and weigh from a pound and a half to two pounds.

Some poultrymen report very good results from crossing Cornish Game males with Barred Rock females. The Cornish carry a large meaty breast, and have plenty of vigor, while the Barred Rock ranks high for meat production.

How to Start.

Before attempting to caponize large numbers of cockerels, it is well to remember that they require a long growing season, plenty of feed, and good housing during the fall and winter. A special market is necessary to dispose of many capons at high prices. Most local markets have their largest demand for plump hens, and the buyers have not been educated to order capons at high prices.

But if you wish to enjoy some fine poultry meat, and not risk much money or feed, try caponizing a few for home use. If the business proves satisfactory, it can later be developed. Possibly some of the egg customers can be induced to buy capons. Sometimes local dealers are glad to obtain a source of supply to fill banquet orders.

Moving the colony houses to clean

soil is a great help in reducing the danger of disease among the chicks. Some poultrymen state that chicks should be raised on the same soil only once in four years. This is undoubtedly true, if you wish to raise chicks under ideal conditions. But few poultrymen have the land to move their colony houses so that the chicks will not touch the different locations more than once in four years.

On most poultry or general farms there is only about so much acreage near enough to the farm and poultry buildings to enable the birds to receive the proper protection of the owner. You cannot place colony houses eighty rods or more from the house and barn without risking great losses from thieves, stray dogs, weasels, skunks and hawks. You cannot give the brooder fires proper attention during storms, if they are located a long distance from the house.

Rotate Ranges.

Many poultrymen find that ten or twenty acres is all they can buy or look after when poultry is their specialty, and much money is needed for buildings and equipment. It is obvious that the young stock cannot be moved beyond the limits of the land a man owns.

So it is my opinion that raising chicks on the same ground only once in four years, is ideal, but, under practical farm conditions most of us cannot do it. The land can be kept in a clover sod, or plowed and limed and planted to other crops. Part of the range can be plowed and planted in corn. This turns up clean soil and plows under a lot of the old soil. It provides a shady range for the chicks.

Other Measures.

Every effort can be made to keep old stock from ranging on the same soil the chicks use. Poultry manure can be scattered as far as possible from the poultry buildings, and used on garden soil which is fenced away from the poultry. Most of us will have to depend on zero weather in winter, and sunshine and plowing to help in keeping the soil as clean as possible for the chicks. I do not think it necessary to become discouraged if enough new soil is not available to permit raising chicks on the same ground only once in four years. I admit that would be an ideal arrangement. Moving the colony houses once or twice a year, and owning about two large chick ranges, is about all that seems possible for most poultrymen.

HENS EAT PAPER.

Please tell me why chickens eat paper. The inside of the roosting pen is lined with heavy building paper and the chickens keep picking at it. Does the paper harm the chickens?—O. E.

Hens have a tendency to peck holes in wall-board, building paper, or any kind of paper composition used on the walls of poultry houses where it can be reached by the birds. The material seems to contain mineral elements which they crave. Part of the pecking and tearing is probable due to the curiosity of the hens to try out any material which they can break loose, whether they have an appetite for it or not.

The habit is not due to any great deficiency in the ration, as hens which receive everything they need, have been known to tear up wall-board linings in poultry houses. Painting the material with lime-sulphur, asphalt paint, or any material with a bad taste, may help in preventing the de-



Free Test

Avicol

For White Diarrhea
In few hours, disease is stopped and sick chicks full of pep.

It's easy to stop chicks dying from white diarrhea. All you need do is drop an Avicol tablet in the drinking water. Thousands of poultry raisers, year after year, raise nearly every chick by this simple precaution. Mrs. E. E. Franks, Ramsdell, Tex., writes: "I was losing 10 to 15 chicks a day before I received the Avicol. I haven't lost one since."

A free test of Avicol will show how easily white diarrhea is prevented and stopped. The way it makes sick chicks lively and healthy, in just a few hours, is positively amazing. If you have never tried Avicol, write for a free sample, or send 50c for a full-sized package, to **Burrell-Dugger Co., 843 Postal Station Bldg., Indianapolis, Ind.** It costs nothing to try the 50c package, because Avicol is guaranteed to do the work or money refunded. But if you prefer, try the free sample first.



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Our 1927 Free Catalog tells how. Write for a copy.

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We are now taking orders for April and May hatched Pullets
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S. C. White Leghorns, Tanager strain, Michigan Accredited. Keep 1700 on our own farm. Hatch our own eggs and from 3 neighbors. All our own stock. Use 200 to 326 eggs. Pedigreed males only. Blood-tested for 3 successive years. Quality chicks. Prices right. Descriptive circular before buying.

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Six Leading Varieties to choose from.
Trapped Leghorns under R. O. P. Work.
Records show 67 to 71 eggs laid per hen in 92 days.
S. C. Heavy Type White Leghorns. White and Barred Rocks.
S. C. Anconas. S. C. Rhode Island Reds.
S. C. Brown Leghorns. We Guarantee Satisfaction.
Write for our Live and Let Live Prices.
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Get your fluffy little "Money Makers" from the largest hatchery in Livingston County. Our two Smith Incubators have a capacity of 25,000 healthy baby chicks per week. Our flocks are culled, leg-banded and final inspected by state men only. Prices reasonable. 100% live delivery.

Livingston Chick Hatchery
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Michigan Accredited CHICKS

Blood Tested for the Past Three Years
Krueper Holterman Barred Rocks \$15.00.
Selected Barred Rocks \$13.00. R. I. Reds \$15.00. White Leghorns \$10.00. Mixed Chicks \$9.00.

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MICHIGAN ACCREDITED CLASS A CHICKS
from well developed, strong, healthy layers. S. C. Eng. White and Brown Leghorns; Sheppard's Anconas; R. I. Reds and Assorted Chicks. No money down. Pay a week before chicks are shipped. 100% live delivery. Postpaid. Catalogue free. **THE BOS HATCHERY, R. 2-M, ZEELAND, MICH.**

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Just mail your order. We ship C. O. D. and guarantee prepaid 100 per cent live delivery of sturdy, pure bred chicks from healthy bred to lay flocks. Wh. Br. and Buff Leghorns 15c; Eng. Wh. Leg. 14c; Trapped Wh. Leghorns 15c; Bd. and Wh. Rocks, R. I. Reds, Anconas 14c; Buff Rocks, Buff Orpingtons; White Wyandottes 16c; Blk. Minorcas 15c; mixed 15c; all heavies 15c. Orders for 50 chicks or more, 25 chicks 2c more.
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OSSE High Bred Quality Chicks
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struction. The only great harm that may come from the habit, aside from the loss of the material, is the crop-bound condition that results if hens pack their crops with paper or any other indigestible material.

POISONING FROM BLUE OINTMENT.

After using blue ointment for chicken lice, would fowls be good to eat, as the ointment is very poisonous?—C. A.
The blue ointment used for lice is usually mixed with equal parts of vaseline, and a piece about the size of a pea is placed beneath the vent, while a small smear is placed under each wing. I have no record of any person being poisoned by eating poultry which has been treated with blue ointment, but the material is very poisonous and I would not wish to use it on birds that were to be marketed, or used for meat within a few days.

The fact that the bird receives only a small quantity of blue ointment, and the skin is carefully washed before the bird is cooked, probably safeguards consumers of the meat. We only treat the birds that are to be retained for at least a few weeks. A hen is small in weight compared with a person, and if much of the poison affected the bird internally, it would doubtless be a very unsafe means of combatting lice.

KEEP THE PULLETS GROWING.

A PULLET will not necessarily make a good hen, even though she has the best of ancestry behind her. A whole lot depends upon the manner of development. In order to make good layers, we should aim to develop heavy appetites in the growing birds. The heavy-laying hen is always the one able to eat and assimilate a large amount of food. While this trait is partly inherited, it is largely developed. The way to do it is by developing large crop capacity in the growing pullets. This is done by forcing them to eat bulky food during the stages of development. Free range, with plenty of shade and green grass, are essential conditions in the development of the future layer. May and June are important months with the early-hatched birds. Make them consume large quantities of mash, and feed the hard grain sparingly. This distends the crop, which condition will be found mighty useful next winter when it is necessary that the hen consume enough feed in about eight hours to last her twenty-four. The reason hens often fail to lay during the short days is because they cannot consume sufficient food during the short hours of daylight. Develop the appetite and the stamina now, and you will be well repaid later.—C. H. Chesley.

ASHES FOR HENS.

Would it be harmful to my chickens if I let them have coal ashes to dust in? Would the ashes from wood be harmful?—J. G.

We empty our hard coal ashes into a metal bushel basket to cool, and later place them in the dust boxes in the laying houses. The hens seem to find bits of mineral matter in the ashes, and eat quite a lot of the material, as well as dusting in it. It seems to cause no trouble, and helps out in providing minerals for the flocks. When the bones from the table scraps are thrown into the stove, that must also add some bone-building material to the ashes.

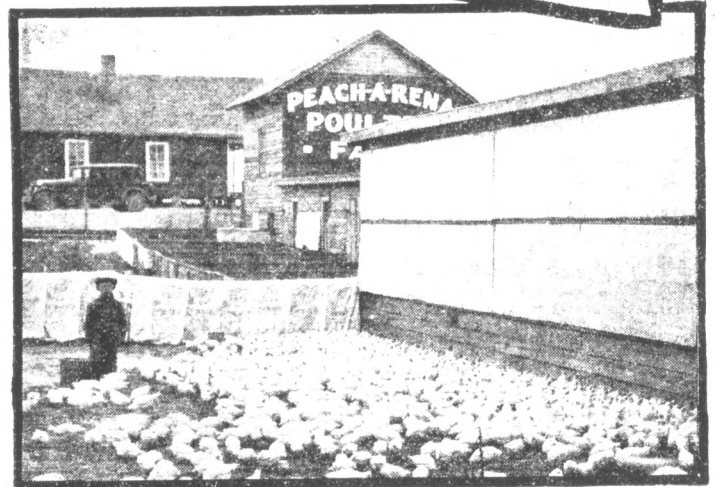
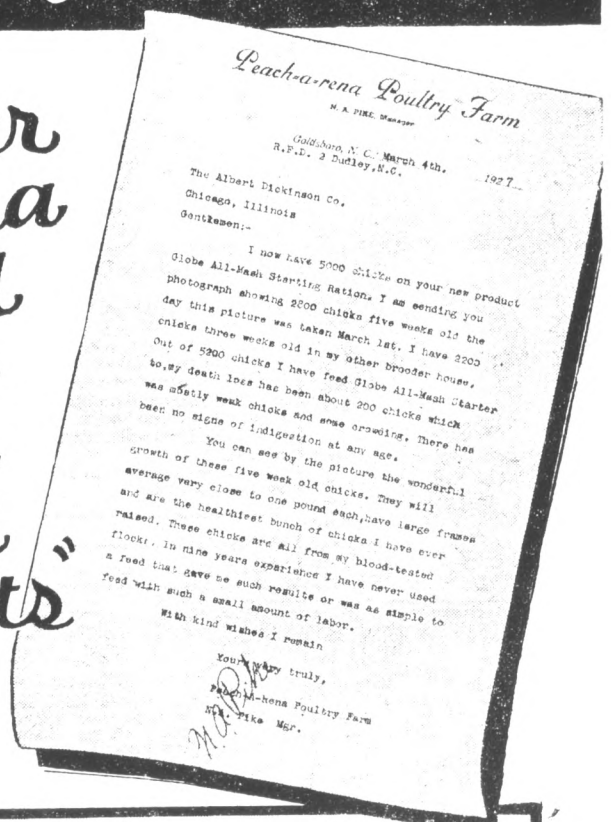
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"Never Had a Feed Give Such Good Results"



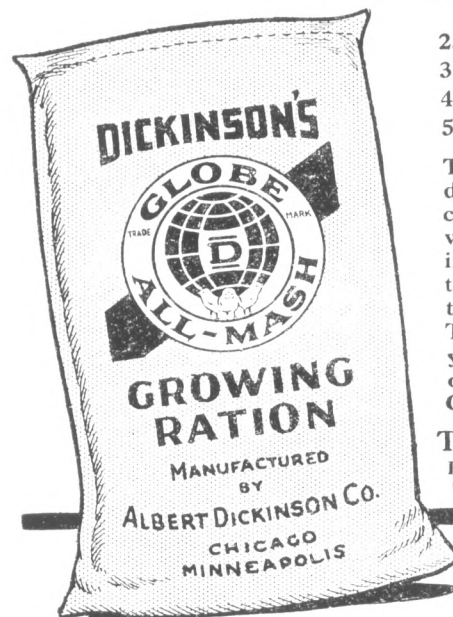
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5. Best results in nine years.

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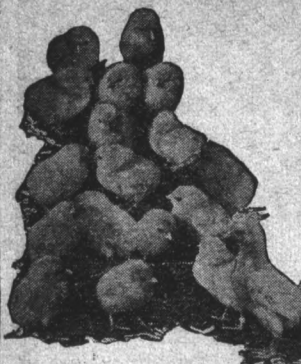
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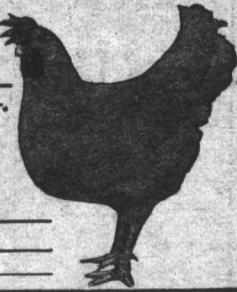
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S. C. White, Buff, Brown, Black and R. C. Brown Leghorns \$3.75 \$7.00 \$13 \$50 \$120
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Light Brahmas, Blue Andalusions, Partridge Rocks, R. C. Anconas 6.00 11.00 20 98 195
Mixed Assorted, \$10 per 100. Heavy Assorted, \$13 per 100. All other Breeds priced reasonable. **BIG, FINE, COLORPLATE POULTRY BOOK, FREE,** stamps appreciated. Don't fail to get this **GREAT BOOK** and invest your money this season in **FAMOUS NABOB 18K STRAINS.** The most profitable investment you can make in the Poultry field right now. **NABOB HATCHERIES, Box F-1, GAMBIER, OHIO.**

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Bk. Minorcas, Anconas, Brd. Rocks.....	3.25	6.50	12.00	23.50	57.50	110.00
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Sil. Spangled Hamburgs, each 14c. Assorted Breeds each 9c.						

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S. C. White & Brown Leghorns \$3.75 \$6.50 \$12.50 \$48.00 \$115.00
Barred Rocks 5.00 8.50 16.00 62.50 150.00
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Light Mixed, \$9.00; Heavy Mixed \$13.00 per 100. 100% live delivery prepaid. Our chicks are Michigan Accredited. 10% down books your order. Free catalog.
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Get your chicks for winter layers right now at these low prices. Order from the prices given below. These chicks are strong, healthy and pure-bred. We guarantee 100% live delivery and satisfaction.
S. C. White Leghorns, 10c; Barred Rocks, 12c; Assorted, 8c.
Reliable chicks have proved satisfactory for years. You can depend on them. Order today at above prices. Orders less than 100, 1c more. Bank reference.
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S. C. W. Leghorns..... \$13.00 \$50.00 \$115.00
S. C. Mottled Anconas \$13.00 \$50.00 \$115.00
S. C. Black Minorcas 15.00 65.00 125.00
Left-over Odds and Ends, 9.00 40.00
After May 15th, 2c per chick less on all varieties.
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Blood Tested Baby Chicks
Reduced Prices for April Delivery
100 500 1,000
Extra Selected B. P. Rocks \$15 \$72.50 \$140
Selected B. P. Rocks & Reds \$13 \$62.50 \$120
Mixed Heavies, 11c 100% live delivery
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S. C. W. ENGLISH LEGHORNS, \$11 per 100, discount on orders of 500 or more. 100% live delivery guaranteed. **HENRY WATERWAY, R. No. 4, Holland, Mich.**

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Get Myers Pure Bred Chicks for profits, from leading strains of S. C. White Leghorns, Barred Plymouth Rocks, Rhode Island Reds and White Wyandottes. Chicks from paying parent flocks will live and grow and pay for you.

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Flocks are pure bred, culled for egg production, size and type. Smith hatched chicks, healthy, vigorous and peppy. Order early. Shipped when wanted. Live delivery guaranteed. Write for descriptive catalog.
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Box 6
LIVE and GROW Mt. Pleasant, Mich.

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S. C. Buff Leghorns our specialty, also hatch White Leghorns, Reds and Rocks. Send for Catalog of Walhalla Wonderful Worth While Chicks, now. Don't delay.

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Noblesville, Ind., Box 50

The Great Confession

Our Weekly Sermon—By N. A. McCune

WHO do men say that the Son of Man is?" asked the Savior one day. "Thou art the Christ," said one of the twelve. Modern men are answering the question in the same way. If anyone is disposed to doubt this, I submit the following list of books about Christ, on sale by one book firm—not the entire list, as we must have room for something else, this week, but enough to give an idea of what moderns are thinking about this Galilean Teacher: "The Five Portraits of Jesus," "The Spiritual Pilgrimage of Jesus," "The Creative Work of Jesus," "Jesus, Man of Genius," "The Anthology of Jesus," "The Unfathomable Christ," "The Teaching of Jesus," "The Christ of Faith and the Jesus of History," "The Lord of Thought," "The Practice of the Principles of Jesus," "Our 'Lord's Earthly Life,'" "Jesus, Lover of men." Each of these authors of these studies is saying, "Thou art the Christ."



The confession of Christ has a singularly cleansing effect on the mind. It seems to wash the soul, as the rain washes the air. One day, a friend of mine, then a lad of eighteen, went to his work in the morning, in a factory. His foreman was the most profane and obscene man in the company's employ. He vomited his filth on every employee who did not measure up to his desires. As the young man entered the shop the old rake met him and said, "How's everything this morning, my boy?" The young man had been to church the night before, and he could not think of anything but the sermon just then. Said he, "I know that Jesus Christ came into the world to save sinners." The boss sat down and began to cry. Simple confession has an effect that nothing else has. No doubt Peter felt more a man that day, when he had expressed the deepest feeling of his soul.

Literature is full of the confessions of men and women to Christ. Some of these men paid Him tributes with their lips and not with their lives, but many backed the words with deeds. Said Jean Paul Friedrich Richter, "The despised Jew, being the mightiest among the lowly, and the lowliest among the mighty, and having with His pierced hands lifted the gates of empires off their hinges, and turned the current of history into a new channel, still governs the ages." Said Byron, "If ever God was man, or man was God, Jesus Christ was both." Said Charles Lamb, "If Shakespeare should come in that door, we would all rise, but if Jesus came in, we would all kneel." Said Phillips Brooks, "He was the only sinless man of history and that alone makes Him the most saving fact the world has ever seen." Said our own Whittier,

"O Lord and Master of us all,
What e'er our name or sign,
We own thy sway, we hear thy call,
We test our lives by thine."

Now, confession is different from controversy. Men have debated over religion for many centuries, and have generated more heat than light. Sects and schisms have been the children of controversy, but confession is the child of experience. It is a cross between experience and love. Confession does not mean that you must have the same experience I have, or you are lost (though people have sometimes taught that), but it means that my experience fits my nature as your will fit you. The sun is always the same old friend. But in one place he makes a warm spot behind the barn where chickens and cows gather, in another he grows a wheat field, in an-

other a stately garden of palms. "There are diversities of gifts, but the same spirit, and there are differences of administrations, but the same Lord." The very fact that your confession, or your experience is different from mine, is what helps me. If it were exactly the same as mine, it would not help me so much. "To every man is given the manifestation of the spirit to profit withal."

But Peter thought that the terrific ordeal to which his Friend and Teacher said He was to undergo at Jerusalem was unthinkable, and he said so, emphatically. But the Teacher was more emphatic than he. "Get out of my sight, you Satan!" That is the way the Master of temptation overcame temptation. When He was certain as to the right course, He shut out all other possibilities. Once decided, it was decided. He closed His mind, and it is the sign of a powerful mind to be able to do this. Probably everyone can do it in greater or less degree, with persistent practice. Lincoln is a good example. He set out to save the Union. He would yield this and that, to attain the main end. As he said, he would free all the slaves if necessary, or part of the slaves, or none. But the one great objective was to save the Union. On that his mind was closed. When to close the mind? When to make an irrevocable decision? "The way of man is not in himself. It is not in man that walketh to direct his steps." How did Christ know when to make an unyielding decision? What about those nights spent alone with God? What of those getting up at daybreak, to pray? If He required the frequent connecting up with the Divine batteries, needing recharging, so to speak, much more do we. "More things are wrought by prayer than this world dreams of."

**SUNDAY SCHOOL LESSON FOR—
APRIL 17.**

**SUBJECT:—Peter's Great Confession.
Matthew 16:13 to 24.
GOLDEN TEXT:—Matthew 16:16.**

"By the Way"

A NEW RADIO DISEASE.

Caller—"Why do you tune in on new stations so often?"
Radioite—"Because, I am a fresh air fender."

A GIVE AWAY.

Margaret is only seven years old, but sometimes quite naughty. On one occasion her mother, hoping to be particularly impressive, said, "Don't you know that if you keep on doing naughty things, your children will be naughty, too?"

Margaret dimpled, and cried triumphantly, "Oh, mother, now you've given yourself away."

HER HYMN.

Miss Teachem, wishing to arouse the interest of her Sunday School class, asked them each to write down the name of their favorite hymn.

All the scholars bent their heads over pencil and paper for a few minutes, and then handed in their slips; that is to say, all except Mary.

"Come, Mary," the teacher said, "write down the name of your favorite hymn and bring the paper to me."

Mary wrote and, with downcast eyes and flaming cheeks, handed the teacher a slip of paper bearing the words, "Willie Smith."

Rural Health

By Dr. C. H. Lerrigo

THE BRONCHOSCOPE.

SPEAKING of wizards and wizardry, everyone conjures up a picture of his own. To me, nowadays, the wizard is a white-gowned, white-capped doctor who skillfully operates an instrument known as a bronchoscope, which goes right down into the mysterious recesses of your bronchial tubes and shows just what is there. The instrument was invented as an aid to vision, as the "scope" in its name, indicates, but the skillful user makes it serve many purposes.

I think the leader in this work is Doctor Chevalier Jackson, of Philadelphia. I have just been looking at pictures showing some of his miracles. A girl of four had been ill for a year and a half. According to her numerous doctors, she had asthma, asthmatic bronchitis, tuberculosis, and several other things. The doctor inserted his bronchoscope, pulled out an iron staple that came within range of his vision, and the child got well in a few weeks. A boy of eleven who had his tonsils removed, failed to get well. Cough, fever, and general ill health followed. X-Ray examination showed a tooth deep in the right bronchus, evidently inhaled while unconscious from the anesthetic. The bronchoscope was put in place, out came the tooth, and recovery followed at once. In the bronchoscope clinics operated by Doctor Jackson, over two hundred cases of serious lung trouble, previously diagnosed as asthma, bronchitis or tuberculosis have been found to be due to foreign bodies which the patient (usually a child) has in some manner sucked into the bronchial tubes. Most of the objects are metallic. In several cases in which trouble has followed a tonsil operation, it has been found that some small section of the operating gear, or perhaps a loose tooth, has slipped out of sight into the depths below. When the X-Ray shows their relative position some wizard of the bronchoscope can locate and remove them through his magic tube.

If a child who develops asthma or an abscess of the lungs, without any known cause, (and still more if it follows closely upon a throat operation), I should not be satisfied with the diagnosis until careful search has been made by X-Ray pictures. And if they showed suspicious shadows I should manage in some way to get the child to one of the few doctors trained in operating the bronchoscope.

CHRONIC CONSTIPATION.

Will you please tell me what is the best treatment for chronic constipation, in the shape of foods and bending exercises, or any treatment you think advisable? Am sixty years old and have been troubled more or less most of my life.—D. F. S.

Foods that have in them a certain amount of "roughage" are good to cure constipation. The leafy vegetables, such as spinach, chard, lettuce and cauliflower, are good examples. Bran is good, and may be eaten like a breakfast food, or cooked into bran biscuits, using equal parts of bran and flour. Be sure to drink plenty of water.

HAS FLOATING KIDNEY.

I have floating kidney on my left side, palpitation of heart, diseased ovaries, and granular womb. I am nervous and irritable. I live on a farm and have lots to do.—G. R.

It may be that your symptoms are not really so formidable as they seem. Floating kidney frequently happens without producing any bad symptoms. The palpitation of the heart may be merely functional—a result of the two remaining conditions. Try the rest

cure for a good time—taking as much rest as you possibly can, and letting someone else do the work. Possibly the pelvic conditions are such as to demand a surgical operation, but it is worth while to try the rest cure first. It has disposed of many such troubles.

NOSE BLEEDS.

My nose bleeds very easily. I have hemorrhages on the slightest provocation and feel weak and tired, with irregular pulse. What do you think is the cause?—L. S. D.

I think you have an ulcerated place in the nose, probably in the membrane of the septum. If the nasal hemorrhages are frequent they would account for your tired, weak feeling, and also for the irregular pulse. Go to a good nose specialist for treatment.

HAIR IS FALLING OUT.

Please tell me what is good for itching scalp, scaly scalp, and falling hair. A doctor told me to rub vaseline on my scalp every night, and have my hair cut short. This I did for about six weeks, but had no cure. When rubbing with comb the scales come out in large number. I have had this trouble for at least ten years. I am thirty-two years old.—A. L.

No, I don't think much of the vaseline treatment. Doctors do not feel very much encouraged to make careful prescriptions in such cases, because they know that the prescribing should be done ten years before the trouble comes. When you get to the stage you are in, there isn't much, if any, life at the roots, and it is almost too late to expect anything. Massage, vigorous brushing, and the use of a mild antiseptic offer most hope.

NURSING BABY.

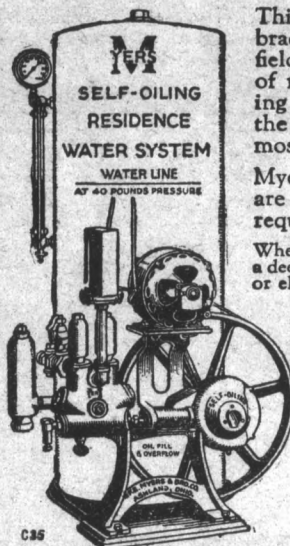
I would like to nurse my eight-month baby through next summer, but I am afraid that I am pregnant again. Ought I to wean the baby?—B. S.

Although it is well for a mother to nurse her baby for a full year if possible, the coming of pregnancy destroys that possibility. For the sake of yourself, the baby, and the newcomer, you must wean your child at once. At eight months the baby may have several additions to his diet, including cereals that are thoroughly cooked, as well as green vegetables that have been cooked a long time, mashed and strained. You should begin to teach him to drink fresh milk from a cup.

Miniature Waterfall at Your Fingertips

PICTURE to yourself the comfort and convenience of sparkling, running water at the turn of a faucet—water in abundance, literally at your finger-tips—in the house, the stables, the barnyard! Consider the time and energy saved, the added health, pleasure and comfort to you and every member of your family. Water in abundance—at your beck and call—every instant of the day or night—is available to you through one of the famous

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Michigan Accredited. S. C. White and Brown Leghorns, Anconas, Bk. Minorcas, and Barred Rocks. Our Leghorns are large, deep bodied birds with full lopped combs. **WRITE FOR SPECIAL PRICE REDUCTION ON MAY AND JUNE DELIVERIES.** Describes in full, gives full details of our matings and tells how to raise Baby Chicks for Greater Profit. Write for prices. **FREE 1927 CATALOG.** We Guarantee 100% Safe Arrival in Good Health.

Member International Baby Chick Association.
AMERICAN CHICK FARM, Box M, ZEELAND, MICHIGAN.



CHICKS

Michigan Accredited Chicks— White Leghorns a Specialty—also best strains of Barred and White Rocks, R. I. Reds, White and Silver Laced Wyandottes, Anconas. Expert selection of breeding stock, together with scientific incubation methods, assure husky, liveable chicks. **DEAN EGG FARM & HATCHERY** Birmingham, Mich. **Box B**

Free Catalogue

DEAN



Leghorns that Pay

\$375.00 net profit in one month

That is what Guy Burgis of Fair Grove, Mich., made last January with 832 pullets raised from 2000 Superior chicks bought last June. Write today for our latest low prices and get started with the right stock. Stock of this quality is cheap even at prices much higher than we are asking.

A BIG BREEDING PLANT

Right on our own breeding plant, the largest of any hatchery in Ottawa County, is where we blend our Tancred and Barron strains to produce those big bodied, profitable birds that are so characteristic of Superior stock. 600 pullets are entered this year in official R. O. P. We are individually pedigreeing thousands of chicks. Write for complete information.

EVERY CHICK MICHIGAN ACCREDITED

In addition to the beneficial results of a big breeding plant, scientific incubation, proper shipping and expert management, you have that official added assurance of the quality of our stock by the fact that our chicks are accredited. Every individual breeder has been approved by trained poultry specialist under supervision of the Mich. State College. Provide yourself with the best. Write for latest special prices.

SUPERIOR POULTRY FARMS, Inc., Box 359 ZEELAND, MICH.

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Reliable Poultry Farm

RELIABLE EGG-BRED BABY CHICKS

Bred 30 Years for Egg Production

Our long experience in breeding and raising pure-bred chicks paves the way for you to bigger profits from your flocks. Customers everywhere endorse our stock. We specialize in producing stock for Commercial Egg Farms.

Pay Only ONE CENT Per Chick With Order.

Tom Barron Strain S. C. White Leghorns, 270-300 Egg Foundation; 300 Egg Strain Anconas; all large, long bodied birds with large combs. Heavy winter layers. Also Evergreen Strain Rose Comb White Wyandottes.

Prices For April Delivery.

	Per 50	100	500
S. C. English White Leghorns, Selected	\$6.50	\$12.50	\$60.00
S. C. Sheppard Anconas, Selected	6.50	12.50	60.00
Rose Comb White Wyandottes	9.50	18.00	85.00
Broiler or Mixed Chicks	4.75	9.00	40.00

Write for prices on other quantities, also for prices on our Extra Selected Matings. We Guarantee 100% Live Delivery on all Chicks. Shipped postpaid. Reference, Zeeland State Bank.

RELIABLE POULTRY FARM & HATCHERY, R. I. Box 42, Zeeland, Mich.

PULLETS

Right Now is the time to order your 8-12 week Pullets for May and later deliveries.

Write for Prices.

Special Price Discount Effective At Once

PLACE YOUR ORDERS WITH US NOW FOR 8-12 WEEKS PULLETS FOR DELIVERY MAY AND ON

Order Direct From This Ad.

Hollywood and Ferris Strain Leghorns. Barred Plymouth Rocks. capacity. Thoroughly long bodied, breeding birds, with large abdominal Big, broad backed, culled. Mated to Large, Vigorous, Healthy Males.

PRICES TO MAY 16th.

	100	500	1000
Hollywood Leghorns	\$13.00	\$63.00	\$120
Ferris Leghorns	11.00	53.00	100
Barred Rocks	15.00	72.50	140

May 23rd to May 30th.

	\$11.00	\$53.00	\$100
Hollywood Leghorns			
Ferris Leghorns	9.00	43.00	80
Barred Rocks	13.00	62.50	120

Write for Prices on June and July Deliveries.

100% Live Arrival Guaranteed.

BAY VIEW POULTRY FARM Route 1, Box M Holland, Mich.

HA! LOOK! Buy Our Big Easy To Raise Chicks!

15 pure bred varieties of Barred, Buff, White Rocks, Single Rose Comb Reds, White, Brown, Buff Leghorns, Shepperd's Best Anconas, White Silver Wyandottes, Buff Orpingtons, Black Minorcas, Mixed Chicks 9c up. Some won 1st and 2nd prizes in production class. Won many 1st prize blue ribbons in large poultry show. Also have one flock of Morgan-Tanored Strain, blood tested White Leghorns of 250 to 312 egg breeding. Owner paid \$150 for 6 eggs to improve our flocks. Every breeder culled and selected for heavy production. Get free circular. Big discounts on baby chicks and brooders.

BECKMAN HATCHERY, GRAND RAPIDS, MICHIGAN

DILIGENT CHICKS DID IT and will do it for you

High in quality, low in price. "I have always liked your chicks the best," one customer writes. Do not pay fancy prices for chicks that are not better. Twelve years of honest dealing behind us. Pullets after May 1st.

Postpaid prices on

	25	50	100	500
Single Comb White Leghorn, English Strain	\$3.25	\$6.25	\$12	\$57.50
Barred Plymouth Rocks, Park Strain	4.00	7.75	15	72.50
S. C. Rhode Island Reds	4.00	7.75	15	72.50
Mixed Chicks	2.50	4.75	9	42.50

Diligent Hatchery & Poultry Farm, Harm J. Knoll

R. R. No. 11, HOLLAND, MICHIGAN.

WOLF SELECTED CHICKS

Baby chicks of highest quality. Special Pen Mated Stock and Extra High Bred Chick at slightly higher prices, if you prefer. Fine healthy pure-bred utility chicks at following prices. Catalog free.

Prices postpaid, (100% live del. guarant'd).

	25	50	100	500	1000
S. C. Wh., Br., Buff Leghorns, Anconas	\$3.50	\$6.75	\$12.00	\$58.00	\$110
S. C. R. I. Reds, Wh. & Rd. Rocks, Minorcas	3.75	7.25	14.00	68.50	130
Wh. Wyandottes, Buff Orpingtons	4.00	7.75	15.00	73.00	140
Jersey Giants	7.00	13.00	25.00	115.00	
Heavy Mixed Chicks	3.50	6.25	11.50	57.50	115
Assorted (Odds & Ends) Chicks	3.00	5.00	9.50	47.50	95

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Big Healthy Chicks that will Develop Into Profitable Pullets. Our stock has free farm range, is selected by a trained poultry specialist and mated with high record male birds. Order at these low prices:

	50	100	500	1000
Eng. White Leghorns & Anconas	\$6.50	\$12.00	\$57.50	\$110.00
Assorted chicks for broilers	8.00	37.50	70.00	

We guarantee 100% live delivery. Order direct from this ad and save. Ref: Zeeland State Bank.

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Our Pure Blood

Some flocks are blood tested and trapnetted with cockerels of 200 to 312 egg-record blood lines. Every breeder culled and selected. Get our FREE circular giving big discounts on baby chicks, hatching eggs and brooders.

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Our big free catalog is ready. Write for it today. Describes our stock and special matings at higher prices. 100% prepaid live arrival guaranteed. **HIGHLAND POULTRY FARM, Box C, HOLLAND, MICH.**

BUY GOLDEN RULE PURE BRED CHICKS

Best Quality From Select, Carefully Inspected, Free Range Stock

	50	100	400	500	1000
White, Brown & Buff Leghorns	\$6.50	\$12.00	\$47.00	\$70.00	\$115.00
White, Barred & Buff Rocks	8.00	15.00	58.00	84.00	140.00
White Wyandotte, Red, Black Minorcas	8.50	16.00	62.00	90.00	150.00
Buff Orpingtons, Buff Minorcas	11.50	22.00	82.00	110.00	
Light Brahma, Black Giant	6.50	12.00	48.00	72.00	120.00
Anconas & HEAVY MIXED	5.00	9.00	36.00	54.00	90.00

Order from this ad. Catalog free.

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OHIO ACCREDITED "Best-Yet" Chicks

DRAW BIGGER POULTRY PROFIT. Hardy, vigorous chicks. Quick growers. Sure success with our healthy chicks from carefully culled, inspected and selected flocks. Good types in the following heavy laying varieties:

Prices prepaid per

	25	50	100	500
White & Brown Leghorns	\$3.75	\$7.00	\$13.00	\$62.00
Wh. Leg. (Tom Barron & Wyckoff strains)	4.25	8.00	15.00	72.00
Br. Rocks, Anconas, S. C. & R. C. Reds	4.25	8.00	15.00	72.00
Wh. Bks., Wh. Wyan., Buff Orp.	4.50	8.50	16.00	77.00
Mixed	3.25	6.00	11.00	52.00

100% delivery. Our big catalog free. Members of the International Baby Chick Association. **BLUFFTON HATCHERY CO., Box M, BLUFFTON, OHIO.**



About Prohibition

Answering Christine Zeck's Arguments

AFTER reading Christine Zeck's letter, I could not help writing.

So she thinks prohibition has failed and, as a result, the Volstead Act should be repealed? Then, why not repeal all laws concerning criminals, as there is more crime now than ten years ago? Kill or imprison our murderers and robbers, yes. Yet let that deadly foe, alcohol, go uncurbed! It alone has wrecked more homes, killed or maimed more people, and robbed them, than all our murderers and robbers put together.

You say that it has not improved conditions. Before prohibition went into effect, we lived in a small village of perhaps 350 population, in which there were more saloons than grocery

for the person who is weak morally.

It is absolutely a fact that drunkenness increases with good times, and decreases with bad. People never used to notice men who were intoxicated; now they are arrested and written about in the newspapers. Thus, people think there are more cases of drunkenness than before. There are more happy homes and communities today as a result of prohibition. Children are going to school and being educated. My own community shows that.

You say that after prohibition drinking has been done on the road from a flask. What about the horse and buggy that used to go past on the road, the inhabitants drinking, or already drunk? Prohibition wasn't a law then, but people did not notice these things. We have several dance halls around here, and it is not a regular custom for the people who attend them to be under the influence of liquor. No one of these places allows a person in this condition on the floor. We have barn dances, but no evidences of drink, such as those of which you spoke.

The Volstead Act has not failed utterly to do what it intended to do, to promote temperance and sobriety. It has been stated legally that the country is financially better off, and in several states, with the increase of population there is a decrease of intoxication.—Farm Kate.



Edward, Fern, Roy and Ray Hagadorn, Four Names, Three Persons, and One Cat.

stores. Saturday nights it was unsafe for a woman to venture on the main streets alone, because one would meet a half dozen drunken men on every block. And the wife and children of these men were home, hungry, cold, deprived in soul and mind, just because these men were not masters of themselves. Now, one rarely sees a drunken man. That place is a pleasant little summer resort now, not the tough town it used to be. Yet, you say, prohibition has failed.

Drinking is more prevalent among the younger generation, you say. But, putting a saloon on every corner is not going to stop them drinking. A saloon keeper knows if "he has the boy, he has the man," so would supply a boy under age.

One drunken man and an auto can work havoc. If that isn't enough, think of the poor children of drunkards. What chance have they in the world, weakened in mind, body, and spirit by the alcohol their father had drunk?

By repealing prohibition, will it better conditions? Will it help anyone? Prohibition has not been a flying success, but it has not failed. And nothing will be gained by repealing it.—F. C. C.

Am answering Christine Zeck and her talk on prohibition. Christine, if you, and others like you, would spend more of your time helping to enforce this law, there would be less need of considering a chance of the Volstead Act.

How do you know conditions are worse now than when the Volstead Act was not a law? You know what temptations saloons were before the Volstead Act. It certainly was no enlightening situation for a man coming from work with his pay check burning his fingers, and a patient wife and children who needed clothing, at home awaiting him, to encounter these numerous liquor joints. Alcoholic liquor is one of the most tempting temptations of the human being, especially

Our Letter Box

Dear Uncle Frank:

I will start a new subject for discussion. This time it will be, "Should the state of Michigan have capital punishment?"

On this subject I say yes, because I believe there would be fewer criminals if we did have capital punishment. Giving criminals life sentences makes a lot of expense, because it costs money to feed these prisoners who are serving life terms. By hanging a criminal who has killed somebody it cuts the expense in half, because it does not cost any money to keep up the gallows. We should have capital punishment, as it cuts the expenses in half. Let's keep the ball rolling, cousins, and give our opinions on this subject.—Harold Snyder.

You give a rather hard-hearted argument, but I don't think you are as hard as your arguments would lead one to



Donald Cooper, Albion City Boy, Likes Farming.

believe. You naturally expect someone to disagree with you.

Dear Uncle Frank:

I don't think that Dagmar Thomsen expressed my opinion right about worrying about the future. It's all right to plan for the future, but I don't see any use in worry. I'm also planning about the future, but I'm trying my best not to worry. Why does the doctor always say to sick patients, "Don't Worry?" Some people sit from morning till night and do nothing but worry and worry, until they die from worry. I never have, in all my life, depended upon my neighbor, and I never

intend to depend upon my neighbors. I also believe in Holy Scripture when God says: Ps. 127:2: "It is in vain for you to rise up early, to sit up late to eat the bread of sorrow: for so He giveth His beloved sleep."

When you are planning you are not worrying, and when you're worrying you're not planning, that's my opinion about worry. How do you agree about this, Uncle Frank?—Gertrude.

I agree with you. You said it in a nutshell, "When you are planning, you are not worrying," etc.

Dear Uncle Frank:

I don't see what girls have against boys. I have five brothers, and I can find something to like in all of them. Three of them are married and away from home, but I like them just the same. So I think that girls who don't like boys have something wrong with their heads. It just isn't natural, so there now! Do you like to play checkers, Uncle? I do, and I beat dad four games out of seven this afternoon. That wasn't so bad, now, was it? I sure would like to know how Windy milks a kicking cow without her kicking, because I might have to milk next summer.—Chatterbox.

I'll agree that it isn't natural for girls not to like boys. If I'd play checkers with you, I'm sure of one thing—I'd lose. I haven't played since since grandpop was a pup.

Dear Uncle and Cousins:

Here I am again. My imagination does not work very well this morning, but as I look out over a sullen beclouded landscape, and listen to the slight stir of the first spring breeze, I can see beauty everywhere. But fancy cannot lead me. I hear the noisy hens waiting for food. The cows want consideration, too. And then along comes the housework, which there is never too little. These farm chores look small to the spectator, but they would not be so small if the onlookers tried their hands at it. I guess not. The result would be: backaches, lameness, and ruffled dispositions.

Esther Larson certainly gets my approval. The weather here is not even a "reflection" of paradise. It is fine to walk over snowless sidewalks, but when you have to shovel your own path, then that is where the blah begins.—Dimples.

There is wisdom in your letter. When you have wisdom, imagination is not an absolute necessity. I think we all would like some more of your unimaginable letters.

IMAGINATION CONTEST.

I HAVE about run out of artists' conceptions of what I look like, so I have nothing to refer to when I want to find out. Also, our artists have not been very busy lately, so this contest

is for those who want to draw what they think I look like. The boys and girls will be given equal chances—five prizes for each. The two best drawings from girls, and the two from boys, will be awarded fountain pens. The next three best drawings from girls will be awarded unique little clutch pencils, and the next three from boys, pocket knives. These drawings should be in by April 22, as the contest ends then. Send them to Uncle Frank, Michigan Farmer, Detroit, Mich. Please remember that all who send in good drawings will be given M. C. buttons and membership cards if not now members.

GRAMMAR WINNERS.

WE had many amusing answers to the Grammar Contest. Apparently quite a few did not know what a coach and six is. It is not a six-cylinder auto, but an old-type coach drawn



Percy White Thinks I'm a Horse Trader.

by six horses. We did not count as incorrect those replies which had the sentences slightly different than ours, but so arranged as to make the same sense. The fortunate ones in this contest are:

Fountain Pens.

Chester May, R. 1, Edmore, Mich.
Bernard A. Herold, R. 4, Dowagiac.
Combination Pencil and Sharpener.
Paul E. Hepworth, Pentwater, Mich.
John A. O'Leary, P. O. Box 717, Norway, Mich.
Clyde Bowman, Hersey, Mich.

Stationery.

Evelyn Phillips, Gen. Del., Niles.
Mildred Burt, R. 6, Eaton Rapids.
Pocketbook Clutch Pencils.
Pauline Martinus, R. 3, Birch Run.
Marie Buck, Morrice, Mich.
Bernice Sting, Galetown, Mich.

The Correct Answers.

1. He was driving away in a coach and six from the church where he had been married.
2. He blew out his brains with a gun, after bidding his wife good-bye.
3. We have two rooms, one above another, sufficiently large to accommodate two hundred pupils.

The Golden Circle Corner

"FORE!"

THREE rousing whoops for Uncle Frank and the Golden Circle reunion! I think it's the best idea we have struck yet for Our Page. It gives me a great pain to announce that the ensuing attempt on our special program will be a discourse on a certain Scotch habit. And I don't mean kilts!

Three years ago this coming summer, a distant cousin of mine from Toledo sold me the heretofore-unthought-of idea that golf was as she is played by Bobby Jones & Co., was a he-man's game.

It has been estimated by reliable statisticians that the American public spends a billion dollars annually on golf. It has also been estimated by somebody who was obviously a dub golfer, and therefore was in a position to know, that since the advent of the ancient and honorable Scottish pastime in America, there have been approximately 363,984,507 new words, phrases, and expressions added to the English language. And believe me, after having topped, sliced, hooked, and lost balls, missed two-foot putts, and committed every other indiscretion known to golf in the last three years, I don't doubt it a bit!

Naturally, the first time I ever swung a brassie in our cow pasture golf grounds, I attempted to deposit the unoffending "pill" in the middle of the

ensuing decade. As a result it merely counted as one strike.

"Who do you think you are, Babe Ruth?" inquired my cousin sarcastically. "Take it easy at first until you get used to it."

Following his advice, the next time I swung more carefully, and somehow managed to connect with it squarely. The ball took a joy-ride straight down the fairway toward the green, and another golf-fiend was born. In the next two years, during which I probably lost as many balls, missed as many putts, and dug up as much turf as the ordinary beginner, I improved little by little, until now I flatter myself that I am an "average" golfer.

Last year I put in two more holes and discovered that two and two made the surprising total of nine! I found that by playing the course forward and backward, and in between, I could end up where I started from, with nine holes played and have a different drive on every hole. Ain't science and nature grand?

One thing I have never yet been able to do is to make a hole in one. They say it only happens once in ten thousand times. The chances are that I may never do it, but, as Captain Kill remarked when he carved out the tongue of the last pirate, "You never can tell!"—Guilford Hal Rothfuss.

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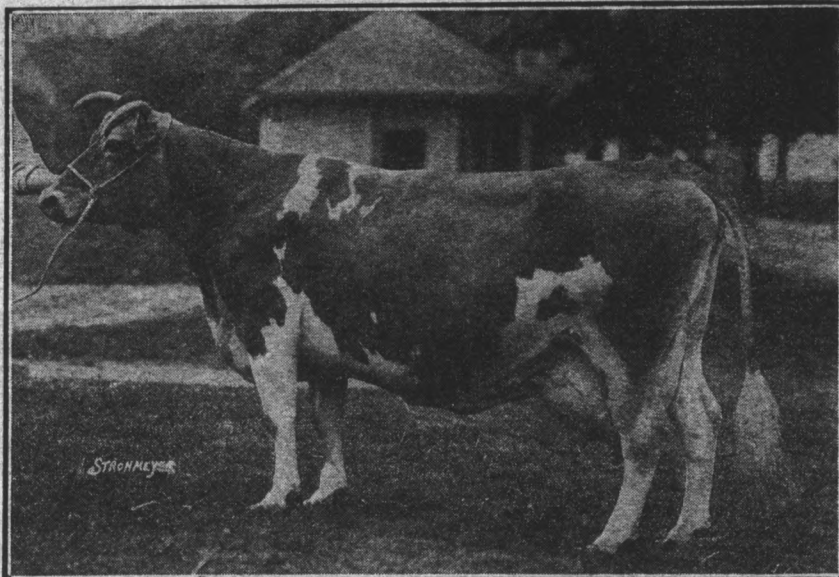
LIVE STOCK AND DAIRYING

POOR CREAM SEPARATING WASTES MONEY.

HOW many pounds of butter-fat per year are you pouring into your hog troughs or feeding in other ways? None, you say? Then you are an unusual exception, because most farmers do waste considerable butter-fat which could easily be prevented. If fed to hogs, it is not entirely wasted, but butter-fat at fifty cents per pound makes rather expensive hog feed.

A large dairy products concern made a systematic canvas of the cream separating in a small territory, and found rather surprising conditions, some being almost unbelievable. Space will not permit of going into details, but

adjustment. Check carefully the directions for operating the separator and follow them to the letter. If this does not stop the trouble, then take the matter up with the service department of the manufacturers and insist that they put the machine in condition to do good skimming. If they refuse to do this at a reasonable cost, and you are unable to find someone who can do it, it will be cheaper to dispose of the separator for what it will bring, or to throw it in the junk pile and buy a machine which has a good reputation in your locality, both for performance and for service. But do not condemn the machine until you are sure it is kept thoroughly clean, is setting level and solid so it cannot vibrate, is turn-



St. Austell Daffodil, Bred by C. G. Parnell of Jackson, Michigan, and Now Owned by Ward Acres, of New York, Has Given 73,887 Pounds of Milk and 3,522.72 Pounds of Fat in Five Successive Lactation Periods.

out of the first thirty separators tested, only three were wasting less than \$20 per year on the basis of twenty gallons of milk per day, and butter-fat at an average price of forty cents, and several were wasting over \$100 per year, and hand-skimming over \$700 per year on the same basis.

There are many causes for loss of butter-fat in skim-milk; such as the speed, temperature of the milk, rate of inflow, cleanliness of machine, smoothness of running, wrong adjustment, not setting level, vibration, and so on. While the age of the machine had something to do with the losses, one of the worst cases was a machine which had been in use only one month.

And all this terrific waste is so easily prevented. All any farmer has to do to check the work of his separator is to take an occasional sample of the skim-milk to an association tester, to a creamery or dairy, or to a milk station, and have the skim-milk tested for butter-fat. Any good creamery man will be glad to do this without charge for any of his patrons. If the tests show too much butter-fat in the skim-milk, have them figure up the loss per year, according to the number of gallons produced per year, and the average price of butter-fat, and see if it is a saving worth trying for.

The first thing to suspect is unclean separators. Tests in Minnesota showed that separators washed thoroughly twice daily wasted only half as much butter-fat as separators washed once a day and flushed out with water once a day, and only about one-fourth as much as those washed once a day and flushed with skim-milk or not at all. This shows that thorough and frequent cleaning of separators pays big wages.

If the waste of butter-fat continues in spite of thorough cleaning, then the trouble is in the speed or the proper

ed at the correct uniform speed, and that the temperature of the milk, and the rate of inflow are according to directions.—I. W. Dickerson.

OILING HARNESS—BREAKING COLT.

Will a harness last longer if soaked in oil drained from a car? I have a three-year-old colt which I was able to harness once, but the second time she began kicking, and I have not tried to harness her since. How could I break her?—S. T.

Mineral oil is not good for leather. It hardens it and makes it crack. Animal or vegetable oil only should be used on leather, and animal oil is much more preferable.

A colt usually kicks because he is afraid. Kicking is his natural means of defense. He thinks he is going to get hurt. A little careful handling, a little kindness in showing him that he will not be hurt, ordinarily is all that is necessary. The man who understands colts, a natural master of them, can nearly always get their confidence in a short time and have no trouble. But there are colts that haven't intelligence enough hardly to be handled in this way, at least by the ordinary man. Then they must be handled differently. Strap up one front leg so he can kick, carefully put the harness on, when the colt will find that he is not injured. Cautiously dangle the harness around the hind legs, talking encouragingly all the while. The colt will soon cease to be frightened. It is just a matter of education.

But there are other colts that are vicious. They usually must be handled still differently, yet such colts, many times, can be cured by kindness. If not, then one must resort to force until the colt gives up, finds out that it does no good to resist. Strap his head to the manger so he can't bite, tie up his front leg to prevent kicking,

or perhaps may be necessary to tie his hind feet. You are warranted in using him a little rough until he learns to obey. It is better that all colts have the same driver until they are thoroughly broken.

Some colts have such strong personality that it is best to employ a professional horse trainer to break them. When once broken they usually make the best kind of horses.

WHO PAYS COST OF SHEARING?

In a case where no contract is made, and you rent an equipped farm, the renter furnishing the labor and receiving one-third, is the renter to pay the whole cost of sheep shearing, or just his one-third?—G. W. B.

As to who bears the expense of sheep shearing, depends on the size of the flock somewhat. If experienced shearers are brought in and the flock is sufficiently large enough, such expense should be paid by both parties. Such operations should be classed the same as outside machine hire.—F. T. Riddell.

FLOUR SWEEPINGS FOR PIGS AND HENS.

Is flour (sweepings from big bakeries, mixed flour), good for pigs, or for mixing in mash for chickens? The flour is quite clean and contains no refuse of any kind.—A. A. M.

If this flour doesn't contain too much dirt, there is no reason why it is not suitable food for both pigs and chickens. If it is half dirt, which has no food value, you wouldn't want to pay much for it, neither would you want to feed all this dirt.

Flour, when fed alone, is quite sticky and bothers in feeding, but if mixed with other food for a dry mash, or even a wet mash, no difficulty would be experienced. For hogs it would be fine if made into a slop with corn meal or barley.

MILK HAS BAD ODOR.

I have a very good registered cow whose milk tests eight per cent or better, but her milk has a bad odor, and the butter a poor flavor. What can I do in this case? I would like to keep the cow.—W. L. W.

Quite often cows that are owned as a private family cow will give milk that has a bad odor and flavor. It is sometimes characterized as a bitter flavor. However, this condition is usually present in the milk from cows that are almost dry, and due to freshen soon. There is more trouble, generally speaking, with family cows where there is only one cow in the barn, because of the fact that they are usually over-fed in the owner's attempt to keep up their milk flow when they are naturally declining in milk. In their efforts to get all the milk that is possible, the usual practice is to feed the cow quite heavily on grain, and this is where the trouble begins. Cows under this condition are usually quite fat. About the only remedy for clearing up the situation is to give the cow a good physic, such as a pound of epsom or Glauber's salts, and cut down the food to the point of almost taking all the grain away from them, and then gradually bring the grain up to the normal amount, which should be in proportion to the milk produced, usually one pound of grain to each three pounds of milk produced daily.—O. E. Reed.

COST OF KEEPING A PONY.

How much should it be worth to care for a pony weighing about 400 pounds, for six months? I am unable to make any use of it.—E. J. B.

It is possible that there might be no market for timothy hay, and one had it in such abundance that he could afford to winter a pony on hay alone, but ordinarily it is not economical to feed hay alone. In a maintenance ration the proportion of protein to carbohydrates should be about 1:7, whereas, in timothy hay it is about 1:16, hence when fed alone there is a great waste of carbohydrates, because an

animal must have a definite amount of protein.

Experiments disclose that a horse doing no work, just yard exercise, requires a little over one pound of digestible protein per 1,000 pounds of live weight, to neither gain nor lose in live weight. Therefore, it would take about forty pounds of hay per day to furnish a horse a maintenance ration. The pony weighs only about one-half as much, hence would require about twenty pounds.

In six months of the winter it would require 1.8 tons at \$10 per ton, the usual price figured for timothy in the barn, this would amount to \$18. Then it would take about a ton of straw for bedding, worth at least \$5.00, or a total of \$23. To this must be added the cost of labor for care, which can hardly be estimated by anyone who does not actually do the work.

If, instead of feeding an all hay ration, two pounds of oats is fed, then it will require only ten pounds of hay per day to furnish the required protein, and the cost would then be:

Two pounds of oats per day for six months equals \$5.00; ten pounds of hay per day for six months equals \$9.00, and straw, \$5.00; or a total of \$19.

Of course, if clover hay was fed instead of timothy, the ration would figure differently. But even then, a ration entirely of bulky feed is not the best, especially for a horse.—L.

HAY FOR BULL—COST OF KEEPING.

How much alfalfa hay should one feed a four-year-old Guernsey bull per day when nothing else is fed? What does it cost to keep a bull per year?—A. L.

A bull should not be fed entirely on alfalfa. It's too rich in protein. It would be very extravagant, and besides, it would be detrimental to the health of the bull.

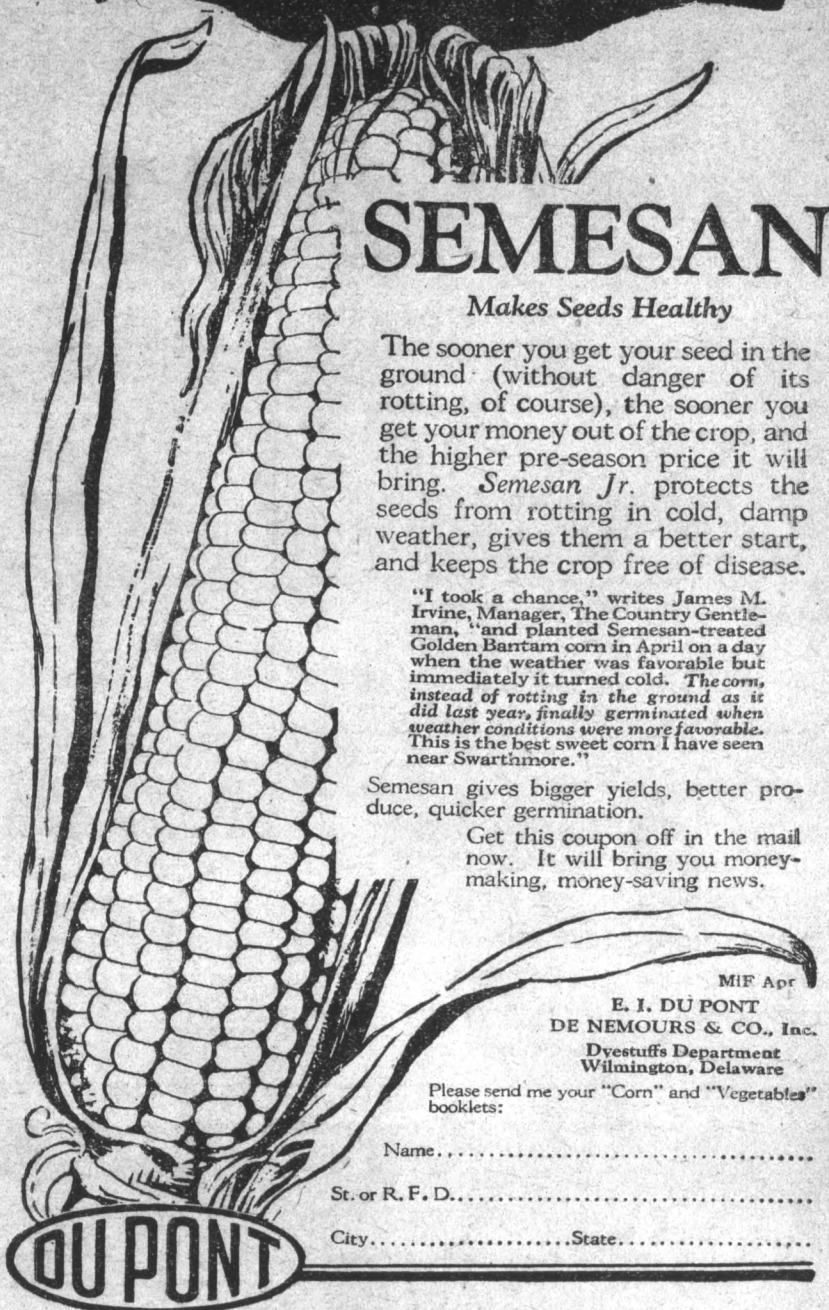
A bull usually has very little exercise, not enough to keep him in good health, and requires but little more than a maintenance ration, certainly no more than an animal at light work, and should be fed accordingly. One and one-fourth pounds of protein per day per 1,000 pounds live weight is all that is necessary, and all that is best. If fed on alfalfa alone, twelve pounds would furnish this amount, but it would be necessary to feed more because the twelve pounds of alfalfa would not furnish sufficient carbohydrates. In other words, alfalfa does not contain the food nutrients in right proportion to be fed alone as an entire ration. For an animal kept under the conditions a bull is usually kept, the nutritive ratio, that is, the proportion of the protein to the carbohydrate, should be about 1:7.7, that is, one pound of protein to every 7.7 pounds of carbohydrates; but alfalfa has a nutritive ratio of about 1:3.6.

A ration of eight pounds of alfalfa, ten pounds of silage or cornstalks or straw, and three pounds of ground oats will supply the necessary amount of protein, and also the necessary amount of carbohydrates. In other words, furnish a balanced ration which would be cheaper, and much better for the health of the bull.

Many bulls are over-fed. Some are fed as much as one would feed an ox in the yoke doing heavy work. They get too fat, and many become useless as sires when they should be in their prime. And all because of much feed and little exercise. If the bull could be worked every day, the case would be different. The ration proposed above would cost \$50.73 for one year. This is figured on a basis of 1,000 pounds of live weight. If the bull weighs less he would require less feed, and if he weighed more he should be fed more.

A young growing bull, of course, would require more liberal feeding. After he has gotten his normal growth he should be fed only a sufficient amount to keep him in fair condition, and never be allowed to become fat.

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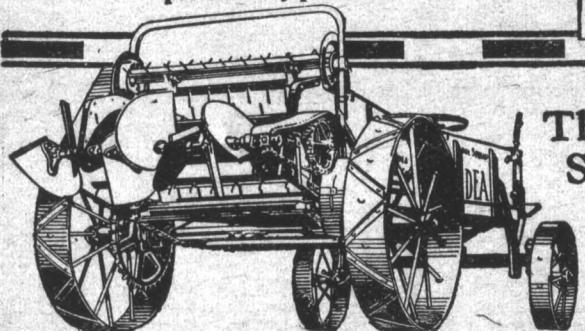
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Gentlemen: Please send me FREE, your new booklet "Farm Records", also Super-Zinc-ed Fence Catalogue.

Name _____

Address _____

DAIRY COOPERATION IN MINNESOTA.

(Continued from page 527).

such work is only possible where creameries have federated into one big organization. The creameries in one district recently built the only sweet buttermilk drying plant in America, and it is extracting enough fat from the buttermilk to pay all the operating expenses of the plant, leaving the dried product, worth ten to twelve cents a pound, all profit. These creameries are applying packer efficiency to their business. The packer wastes only the squeal of the hog; they lose only the water evaporated in drying the buttermilk.

This sweet buttermilk powder is being used for candy making, ice cream mixes, in cake flours and for general baking. Used with pure milk fat it makes fine ice cream. These two products give the association the most concentrated milk products known, and great savings in freight and express costs are possible.

Sweet cream is another important product. Last year 288 cars of fresh, and eighty-nine cars of frozen cream were shipped, some as far away as Florida, where it was served absolutely sweet a week after shipment. Cheese is also being handled, this product coming from the Minnesota and Wisconsin factories that are members of the Wisconsin Cheese Producers' Federation. In the Twin Cities, it markets eggs for the Lake Region Cooperative Egg and Poultry Exchange.

The association also buys supplies for its member creameries. Last year supply sales reached \$1,750,000. The patronage refund to creameries on this business last year reached \$123,166.

Thus far, the assembling, grading and merchandising of the butter represents the greatest advancement over methods used prior to the federation of these creameries. Every one of the cooperative creameries was a competitor of each other. Since the first creameries were built back in the early nineties, they had all sold the bulk of their fine butter in New York and Philadelphia, shipping in less than carlots. They were always at the mercy of the buyers who discriminated somewhat in prices, but who treated them well, as there was seldom enough fine butter to supply the market.

Had the 3,508 cars of butter shipped by the association last year gone under the old less than carlot rates, the freight bill would have been \$355,083 greater than it was under the plan of assembling and shipping in carlots. The money saved by creameries on this one item alone greatly exceeds the entire cost of the organization.

Then, as all dairy farmers know, New York sets the price of butter. When that market is flooded, prices drop. For thirty years the creameries of Minnesota, Iowa and Wisconsin which supply that market with the bulk of its fine butter, saw prices fluctuate without adequate reason. It did not matter if some other city was crying for fine butter, the price went down if New York was over-supplied.

Here is where Land O' Lakes helps every dairyman. It is developing new markets for fine butter. Instead of being dependent upon four or five markets, principally New York and Philadelphia, it is building up "outside" markets through advertising. Last year 216 communities bought Land O' Lakes butter. Thirty-six cities took over a million pounds each. Boston took 17,228,000 pounds, a bit more than New York, and Boston has always been a centralizer market. Buffalo, another centralizer market, took over 5,000,000 pounds, almost a million more than Philadelphia, and even Chicago, long recognized as a low quality market, took more 93-score than Philadelphia. Cleveland, Washington, and Pittsburgh took over 3,000,000 pounds each.

The plan is this: When the New York market becomes loggy the association diverts its butter to these other markets. It tries to give New York and Philadelphia just enough fine butter to meet the trade demands. And who can say what might have happened to the butter market the past winter if Minnesota had dumped all its fine butter on New York, as it did in the years gone by? It doesn't need much imagination to see that when this organization controls enough of the fine butter that it will cut the market from under the poorer butter, and get a greater spread for the fine butter.

This cooperative is built from the ground up. There were 633 of these local creameries in Minnesota before any attempt was made to federate them, and there are counties in Minnesota today with more than a creamery to the township. When joining they agree by contract to sell through the association for a period of two years, but they may withdraw at the end of that period on thirty-days' notice. Very few of the old local creameries have contracts with patrons, but most new ones are organizing on that basis.

This organization can well be classed with "big business." It is managed by eighteen farmers, one from each district association, but it is operating like any big private business firm. Only about two-thirds of Minnesota's creameries have joined. These "hold-outs" still prefer the old methods, and are being teased to follow them by the private butter buyers who even tempt them with premiums. Supply salesmen also spread plenty of poison, generally unsupported by facts, but despite this bitter opposition the association continues to grow and show marked progress. Wisconsin is learning more and more toward greater affiliation, and two or three creameries in Iowa are now interested. When the top notch creameries of those states join those already federated, Land O' Lakes will be such a dominant factor in the fine butter market that even higher premiums will be paid for quality.

Any discussion of the dairy cooperatives of Minnesota would be incomplete without mention of the Twin City Milk Producers' Association. It was organized in 1916 to supply fluid milk to the Twin Cities, and it has rescued the dairy farmers in a forty-mile zone of those cities from a deplorable condition. It now has 6,908 members, and its operation has been studied by delegations from all parts of America, and even foreign countries. It is the model copied by numerous other fluid milk associations.

Briefly, it has provided a market for every pound of the farmers' milk every day in the year. It bargains with the distributors on the basis of what milk is worth when turned into butter and cheese. It has had no disputes with distributors for six or seven years. Its surplus is turned into butter, cheese, ice cream and condensed milk, and it makes a full line of milk powders and casein. Nearly 300,000,000 pounds of milk were handled last year, of which only 49.7 per cent was sold as market milk. This organization has done fine work in improving quality, and has been able to handle always the increasing production due to satisfactory market conditions. The loyalty of its membership is indicated by the fact that only three exercised the yearly option last year to withdraw.

Yes, Minnesota dairy men have long realized the value of cooperative manufacture; now they are learning the importance of cooperative merchandising. May their experience prove an inspiration to farmers in other sections who have not yet learned of these advantages, many of whom do not even cooperate as yet in even handling the raw product.

Charles Darwin was a semi-invalid, due mainly to an eye defect which caused extreme dizziness.

Heaves

If a horse isn't ready to work when you need him you suffer heavy loss. You lose the very thing you feed him for—his power to work. Don't let any of your horses suffer with heaves. No matter how bad the case seems, or how long it has existed, it will nearly always respond if you use Fleming's Tonic Heave Powders.

At work affected animals fag easily, lag in the collar, puff and pant, or sweat profusely and lose weight and strength. If treatment is neglected and particularly if the horse is worked, look out for chronic indigestion, heaves, chronic cough, blood disorders and skin diseases.

Fleming's Tonic Heave Powders



for all horses that need a tonic

Successfully in use for over 30 years. Not only are results wonderful in treating heaves, but the horse is "toned-up" and kept in tip-top condition all the time.

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Fleming's Tonic Heave Powders improve digestion, absorption, and nutrition. Imparts strength and tone to the entire system. Increases digestive juices and builds rich protective blood insuring high resistance to disease and giving the horse vitality and vigor—POWER IN THE COLLAR. Send for a package today, \$1.00 postpaid.

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SPAVIN AND RINGBONE PASTE—Bone Spavin, Ringbone, Sidebone \$2.00
SPAVIN LIQUID—Bog Spavin, Curbs, Splints \$2.00
LINIMENT—Sprains, Strains, Soreness \$1.00
TONIC HEAVE POWDERS—Heaves, Blood Disorders, etc. \$1.00
SWEENEY BLISTER—Hip Sweeney, Shoulder Sweeney \$1.00
COLIC MIXTURE—Spasmodic and Pica-vent Colic \$1.00
WART REMOVER—Flat, Blood & Seed Warts \$1.00
EYE LOTION—All Eye Inflammations50
HORNSHOP—Stops Horn Growth in Calves and Kids50
GALLOFORM—Galls, Uicers, Sores50
HEALING OIL—Abrasions, Wire Cuts, Wounds50
HOG WORM CAPSULES—Sure, Safe—per 100 \$4.00
CHICKEN LICE POWDER—2 1/2 Lbs.85
5 Lbs. \$1.40

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Sons of BROOKMEAD'S SECRET KING for sale.
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FOR practically pure-bred GUERNSEY or HOLSTEIN calves, from heavy, rich milkers, write EDGEWOOD DAIRY FARMS, Whitewater, Wis.

Guernsey Dairy Heifer Calves, practically pure bred \$25.00 each. We ship O. O. D. Write L. Terwilliger, Wauwatosa, Wis.

Guernsey Bull For Service Special terms and prices on A. B. O. Stock. J. M. WILLIAMS, No. Adams, Mich.

FEED FOR FRESH COWS.

Our cows freshen soon. What feed should we buy to give them a balanced ration? We have only ground rye with vetch in it, and mixed clover and timothy hay. Are mineral feeds a benefit?—M. I. C.

Vetch in the rye helps out on the protein content of the ration, as it contains about twenty per cent protein, but the question that puzzles one in mixing the right amount of the different feeds to make a balanced ration, is what proportion of vetch to rye in the mixture. Does vetch form one-fourth or one-third of the mixture? The writer is assuming that it is one-third, but if less or more, it would make some difference in the proportion of the different feeding stuffs. The same question comes up in the question of hay. What per cent of it is clover? In this we are assuming that it is fifty per cent clover. With this understanding, we suggest:

Fifteen pounds of mixed hay would contain .73 pounds of protein; six pounds of rye and vetch would contain .77 pounds of protein; two pounds of cottonseed meal, (or of cottonseed and linseed meal mixed), would contain .75 pounds of protein. This would make a total of 2.25 pounds of protein.

This is sufficient protein in the ration for cows giving a good, liberal flow of milk. Cows should not be given cottonseed meal for the first two weeks after freshening, then begin with a half pound, and gradually increase to the full amount in two weeks' time.

Minerals are very essential as part of the food for all kinds of animals. They cannot live for long without them. But ordinarily, food grown on good land contains these minerals in sufficient quantity so we do not have to pay any attention to them. Legumes like clover and alfalfa, contain sufficient lime and phosphorus, also grains—corn, oats and rye—have plenty of the mineral elements. But in some instances on sand land, and other land deficient in lime, the crops grown may be deficient in minerals. And if they are, then it is highly essential that minerals in the form of bone meal, wood ashes, etc., be supplied the animals.

Pigs watered in the ordinary way took 111 days to increase in weight from fifty-six to 225 pounds; while another group fed exactly in the same manner, but had access to an automatic waterer, reached the 225-pound mark in five days less time, and on forty-four pounds less feed.

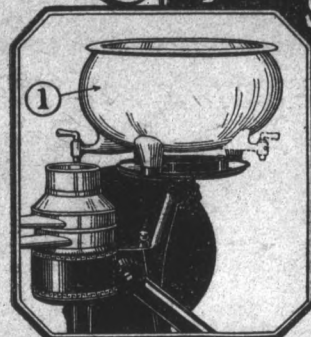
VETERINARY.

Bitter Cream.—The cream from our Jersey cow becomes bitter when it stands eight or ten hours. What causes this, and what can be done? C. B. G.—The bitterness is produced by bacteria, which may be present in the milk when drawn from the cow, or it might become contaminated afterward. Feeding mouldy or spoiled feed, mouldy, decomposed bedding, a damp, dirty barn, or letting the milk stand where it is dusty, are some of the causes of bitter cream. Take four small drinking, or wine glasses, milk an equal quantity of milk from each quarter into a separate glass. See if the four samples all have a uniform color. If you find one or two a little off color, it would indicate that one or more quarters were not healthy. If the milk passes this color test, has a good odor and taste, I think it would be safe to use.

Swamp Fever.—I have had two of my horses die. First, they dragged their front toes; then, whatever ailed them moved to their bodies and hind legs. They hop from one leg to the other for two or three days. The third horse is getting the same way. They eat and drink well. When they lie down they seem to rest a little better. They stagger when they try to walk. H. C.—Your horses are no doubt suffering from swamp fever. It would be advisable to have your local veterinarian treat them for you. The medicine that has given the best results, is an arsenical preparation called atoxyl. This is given in doses from five to twenty grains once daily in a ten per cent solution under the skin. The horses should be given good nourishing food, in order to keep up their strength.

You will appreciate this new De Laval feature

The Turnable Supply Can



Separator users who have seen and tried the new 1927 De Laval are pleased with the turnable supply can—it is so handy and convenient. The supply can may be turned so that tinware and bowl can be put in place or removed, even though the supply can is filled with milk. This is just one of a number of new features on the 1927 Series De Laval Separators, which are everywhere being praised as the best separators ever made. Other features are:

2. Easier Turning: For three years the De Laval experimental and engineering departments have been conducting extensive tests to develop still easier turning separators. The results of these tests are embodied in this new series, which both start and turn easier than any other machines.

3. Oil Window: The new oil window enables you to see at all times the level and condition of the oil. It shows at a glance whether or not the separator is being properly oiled.

4. Floating Bowl: All new De Laval have the wonderful "floating bowl," now used in De Laval Separators with such splendid results. It is self-balancing, runs smoothly without vibration, with the least power and wear, skims cleaner and delivers a richer, smoother cream.

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During the past year 882 cows and heifers of all ages in Michigan State Herds averaged 10,571 lbs. of milk, more than two and a half times the average for Michigan cows. Improve your herds by using a sire bred by Michigan State Herds.

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Dept. C
Lansing, Michigan

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Bull Calves at prices the owner of a small herd can afford to pay. The sire of many of these calves is a Son of the highest record (30 lb.) two-year-old daughter of Creator. His sire is King Segis Alcartra Prilly, an undefeated Show bull with 70 A. R. daughters. Others sired by 5 times 1200 lb. Champion Bull, the famous K. P. O. P. breeding.

Bred cows and heifers served by these sires are available for foundation stock.

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Reference: Northville State Savings Bank

YOUNG REG. HOLSTEIN BULL priced to sell. Out of a 27-lb. cow with a good cow testing record, sired by a 31-lb. bull. You will like this bull. He is a show prospect.
MAPLEHURST DAIRY FARM, Onondaga, Mich.

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CALVES, YRL'S & TWO'S. Well marked, beef type, showing splendid breeding. Dark reds. Most all bunches dehorned. Good stocker order. Can show few bunches around 45 to 90 head. Each bunch even in size. Also a few bunches Shorthorn steers. Will sell your choice of one car load from any bunch. Write, stating number and weight you prefer, 450 lbs. to 800 lbs.

Van D. Baldwin, Eldon, Wapello Co., Iowa.

Choice Jersey Bulls ready for service, and bull calves, for sale from R. of M. dams accredited herd. SMITH & PARKER, Howell, Mich.

BUTTER BRED JERSEY BULLS FOR SALE
CRYSTAL SPRING STOCK FARM, Will Silver Creek, Allegan County, Michigan

FOR SALE, my entire herd of Jersey cattle, 30 cows including seven 2-yr.-old heifers, 5 yearling heifers and 7 heifer calves. Also 2-yr.-old herd bull. COLON C. LILLIE, Coopersville, Mich.

Shorthorns Best of quality and breeding. Bulls cows and heifers for sale. BIDWELL STOCK FARM, Box D, Tecumseh, Mich.

SHORTHORNS For sale, several good cows with calves at foot, and bred again. Also bulls and heifers sired by Maxwilton Mock or Edglink Victor, two of the good bulls of the breed. Will make very attractive prices on all of these cattle. GOTTFREDSON FARMS, Ypsilanti, Mich.

SHORTHORNS milk or beef breed. 20 bulls, 40 females, all ages, at farmer's prices. CENTRAL MICHIGAN SHORTHORN BREEDERS' ASS'N. Write for New list. Oscar Skinner, Sec., Gowen, Mich.

REG. SHORTHORN COW—good individual, heavy milking strain, calves at side, some yearling bulls. Write JOE MORIARTY, Hudson, Mich.

Brown Swiss Bulls For Sale
MAPLE LAKE FARM, Harrisville, Michigan.

HOGS

BERKSHIRES Bred sows. Registered pigs, both sexes. Choicest breeding. Write TALCOA FARM, R. F. D. No. 7, Lansing, Mich.

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DURCO JERSEY FALL BOARS at a very reasonable price. Cholera immunized and guaranteed satisfactory. JESSE BLISS & SON, Henderson, Mich.

O.I.C. PIGS Feb. & Mar. farrow. Eligible to registry. Stock from some of Michigan's best herds. Reasonably priced. Ship on approval. WALTER L. DIETZ, R. 1, Chief, Mich.

FOR SALE Reg. O. I. C. boars and sows. Ready for breeding and service. All stock shipped on approval. No deposit required. FRED W. KENNEDY, R. No. 1, Chelsea, Mich.

LARGE TYPE P. C. Fall boars ready for service, good ones. Sired by great boars and out of large prolific dams. Prices reasonable. Come and see them. W. E. LIVINGSTON, Parma, Mich.

B.T.P.C. FALL PIGS either sex, and G. W. NEEDHAM, Saline, Mich.

LARGE TYPE POLAND CHINAS size and breeding to sell. JAMES G. TAYLOR, Belding, Mich.

A Few good Hampshire spring boars at a bargain. Place your order for bred gilts. JOHN W. SNYDER, St. Johns, Mich., R. 4.

Hampshire BOARS ready for service. Best of breeding. Write us your wants. J. P. SPITLER & SON, Henderson, Mich., R. 1.

SHEEP

FOR SALE—10,000 Black-faced and White-faced Yearling Ewes. **FOR SALE**—10,000 Feeding Lambs, September and October delivery. Wool Growers' Commission Co., U. S. Yards, Chicago, Ill.

HORSES

FOR SALE Pair grey Percheron mares, registered, 8 years old, with foal. Weight 3,800; and two Guernsey bull calves. ORVILLE MILLER, R. 2, Morley, Mich.

9-YEAR-OLD GELDING sound and right, weight 1,500 pounds, price \$125. M. E. COLE, Holly, Michigan, R. No. 4.

FOR SALE Four-yr.-old Registered Black Percheron Stallion. J. B. SIMPSON, R. No. 10, Charlotte, Mich.

Belgian Stallion 9 years old, excellent sire, weight 1,900 lbs. M. I. LEONARD, Highland, Michigan.



THE LATEST MARKET REPORT



GRAIN QUOTATIONS.

Tuesday, April 12.

Wheat.

Detroit.—No. 2 red at \$1.31; No. 2 white \$1.32; No. 2 mixed \$1.30.
Chicago.—May \$1.32½; July \$1.27½; September \$1.26½.
Toledo.—Wheat No. 2 red \$1.31½ @ 1.32½.

Corn.

Detroit.—No. 2 yellow 78c; No. 3 yellow 76c; No. 4 yellow 72c; No. 5 yellow 68c.
Chicago.—May at 70½c; July 76c; September 79½c.

Oats.

Detroit.—No. 2 Michigan 50½c; No. 3, 47½c.
Chicago.—May 43½c; July 43½c; September 42½c.

Rye.

Detroit.—No. 2, \$1.08.
Chicago.—May \$1.01½; July 98½c; September 94½c.
Toledo.—Rye \$1.05.

Beans.

Detroit.—Immediate and prompt shipment at \$4.40 f. o. b. shipping points.
New York.—Pea domestic at \$4.75 @ \$5.25; red kidneys \$6.75 @ 7.25 to the wholesalers.
Chicago.—Spot May beans, Michigan choice hand-picked, in sacks, at \$4.50; dark red kidney \$5.25.

Barley.

Detroit.—Malting 86c; feeding 75c.

Seeds.

Detroit.—Cash red clover at \$27; cash alsike at \$24; timothy, old \$2.40; new \$2.65.

Hay.

Detroit.—No. 1 timothy at \$17 @ 18; standard \$16.50 @ 17.50; No. 1 light clover mixed \$16.50 @ 17.50; No. 2 timothy at \$15 @ 16; No. 1 clover \$16 @ 17; oat straw \$12 @ 13; rye straw \$13 @ 14.

Feeds.

Detroit.—Winter wheat bran at \$36; spring wheat bran at \$35; standard middlings at \$36; fancy middlings at \$41; cracked corn at \$34; coarse corn meal \$32; chop \$33 per ton in carlots.

WHEAT.

Wheat prices made but little progress in the past week. The market features remain much the same. Export demand is fair, receipts at primary markets are light, and foreign markets are still absorbing large amounts of wheat. On the other hand, the new crop outlook is highly favorable. Apparently, values are well adjusted to the supply and demand situation and some change in basic conditions is being awaited. New crop prospects in the northern hemisphere point to a larger crop than last year. The acreage, as far as it has been reported, is about 3.4 per cent larger than last year, and the crop in both the United States and Europe has come through the winter in better condition than last year. The incentive for any important move in wheat prices probably will have to come from the new crop outlook. Comparative stability may continue until the ultimate outcome of the crop is more certain.

RYE.

Rye has been stronger than other grains. The visible supply is large, but enough of it is sold for spring shipment to prevent pressure. Reports from Germany still show a big need for this grain before another crop can be grown. The condition of the new crop on April 1 was 86.4 per cent of normal, compared with 80.2 last year and a ten-year average of 85.8.

CORN.

Corn prices have strengthened recently. Receipts have been light and the visible supply has begun to decrease in spite of moderate demand. The chances are that stocks at terminals have reached their peak, and that decreases from week to week will be the usual order from this time on. Stability in other grains has helped the corn market, and speculative support has been more aggressive.

While a moderate rise in corn prices is to be expected during the spring or early summer, no big move is probable unless weather conditions become unfavorable for planting the new crop. Some important corn sections are complaining of excess moisture.

OATS.

The oats market has been relatively stable, but the visible supply is decreasing each week, and wet weather has delayed seeding operations in some sections. The oats market is in position to respond if other grains have an advance of any consequence, but

they are not likely to move independently.

SEEDS.

Demand for seeds from the northern states is becoming more active as conditions favor planting. Rains would check sales, but dealers generally are expecting a good trade from this section. Large sales of alfalfa and sweet clover are expected in Kansas and Nebraska. Prices generally are steady.

FEEDS.

The feed market is quiet with the demand limited. Cooler weather during the past week has held back pasture growth in northern sections, but with the season farther advanced than is usual at this date, there is little incentive to buy ahead of actual needs. Feed for deferred shipment is quoted at substantial discounts under prompt shipment. Corn industries have announced their "grass prices" for gluten feed.

HAY.

The hay market holds steady at unchanged prices in spite of a slow trade. Slightly less hay remains to be marketed than a year ago, but dealers generally expect a quiet spring trade, so that supplies should be equal to the demand. Consumers are buying on a hand-to-mouth basis, as is usual prior to the opening of the pasture season. Demand for leafy alfalfa hay for dairies particularly has fallen off.

EGGS.

The egg market was marked a little lower last week, as supplies continued to increase. As yet, no indication of any falling off in country collections can be seen, but it is believed that the peak of production is close at hand. Storage holdings are being built up rapidly and the surplus of 400,000 cases in holdings in the four leading distributing markets, and a proportionate gain at interior storing points on April 1, as compared with a year ago, is growing. Prices are not expected to work much lower, although they would have difficulty in holding any material advance so long as supplies remain so large. Broilers are more plentiful than usual this early in the season, and prices are on the down grade. The high point usually is not reached until late in April.

Chicago.—Eggs, fresh firsts at 23 @ 23½c; extras, packed in white wood cases 31 @ 32c; ordinary firsts 22½c; miscellaneous 23c; dirties at 21½c;

checks 21½c. Live poultry, hens 28c; springers 32c; roosters 18c; ducks at 34c; geese 18c; turkeys 30c.

Detroit.—Eggs, fresh firsts at 23½ @ 24c. Live poultry, light springers 30c; broilers 48 @ 53c; heavy hens at 31c; light hens 32c; roosters 20c; geese at 22c; ducks 35 @ 38c; capons 35c.

BUTTER.

The butter market has declined again after regaining the losses of a week ago. Trading has been on a hand-to-mouth basis as dealers believed prices were too high, and that a change to lower values was close at hand. More liberal supplies have been received at leading distributing markets, exceeding the quiet trade and causing some accumulation on dealers' floors. Some progressive increase in production of butter is to be expected as the season advances, and values are likely to sag.

Prices on 92-score creamery were: Chicago 48½c; New York 50½c; Detroit, fresh creamery in tubs 48½c.

POTATOES.

Prices on old potatoes moved into higher ground last week, although new stock declined. Idaho, Colorado and Washington are reported to be running short of potatoes, with stocks on April 1 only about half as large as on the same date a year ago. The market is expected to hold its stronger position at least until competition from new stock increases. Northern round whites, U. S. No. 1, are quoted at \$2 @ 2.20 per 100 pounds, sacked, in the Chicago carlot market.

APPLES.

Apple prices continue steady in spite of the dull trade. Supplies of high-grade stock are dwindling as the season advances. Michigan and New York A-2½-inch Rhode Island Greenings are quoted at \$4.75 per barrel at Chicago.

BEANS.

New York reports that the market is absolutely dead and that all varieties are without new features or price changes. In Chicago moderate prices prevail, with trade very quiet.

CHEESE.

The cheese market is steady, with twins and young Americas scarce and slightly higher. Buyers are purchasing in small amounts for actual needs.

Live Stock Market Service

Tuesday, April 12.

CHICAGO.

Hogs.

Receipts 21,000. Market slow, 25c lower on better grade hogs, compared with Monday's best prices; packing sows around 10c lower; general market steady with Monday's close, bidding 10 @ 15c lower than on Monday; tops \$11.50; choice light hogs \$11.10 @ 11.40; most 210-240-lb. butchers \$10.85 @ 11.25; bulk 250-300-lb. butchers at \$10.50 @ 10.75; packing sows at \$7.50 @ 7.75 mostly; better grade pigs \$10.75 @ 11.25; good packers inactive.

Cattle.

Receipts 11,000. Market slow; weak on practically all classes; killing quality fat steers plain; heavy kind very scarce; best heavies \$13.15; bulk \$9.75 @ 11.75; packers and feeders slow and steady, mostly \$8 @ 9; most bulls \$7 @ 7.25; top Holsteins around \$7.35.

Sheep and Lambs.

Receipts 10,000. Market is slow; no early sales; weak to 25c lower; fat wool lambs on steady prices; sheep steady.

DETROIT.

Cattle.

Receipts 238. Market opening steady but very slow.
Good to choice yearlings
dry-fed \$10.00 @ 10.75
Best heavy steers, dry-fed 9.25 @ 10.50
Handy weight butchers 7.75 @ 9.25
Mixed steers and heifers 6.75 @ 8.50
Handy light butchers 6.25 @ 8.25
Light butchers 6.00 @ 7.00
Best cows 6.00 @ 8.00
Butcher cows 5.25 @ 6.00
Cutters 4.25 @ 4.50
Canners 3.75 @ 4.00
Choice light bulls 5.50 @ 7.50
Bologna bulls 5.75 @ 7.25
Stock bulls 5.75 @ 6.25

Feeders 6.25 @ 8.25
Stockers 5.50 @ 6.25
Milkers and springers \$55.00 @ 100.10

Calves.

Receipts 775. Market steady.
Best \$16.00
Others 8.00 @ 16.50

Sheep and Lambs.

Receipts 2,077. Market steady.
25c higher on lambs; sheep steady.
Best lambs \$15.00 @ 15.25
Fair lambs 11.50 @ 13.25
Light to common lambs 9.00 @ 11.25
Fair to good sheep 6.00 @ 9.50
Bulk wool lambs 16.25
Culls and common 3.00 @ 4.50
Best clipped lambs 13.00 @ 13.50

Hogs.

Receipts 2,054. Roughs 10c higher; others 15 @ 25c lower.
Mixed \$11.50
Roughs 9.35
Pigs, lights and yorkers 11.50
Stags 7.50
Heavies 12.00
Extreme heavies 10.00 @ 10.25

BUFFALO.

Hogs.

Receipts 960. Market around steady; pigs normally \$12.50 down; 160-180 lbs. \$12.25; 190-210 lbs. \$12; 225-240 lbs. \$11.65 @ 11.75; few 265 lbs. at \$11.25; 311 lbs. \$10.75; packing sows at \$9.50 @ 9.75.

Cattle.

Receipts 100. Market around steady. Few late cutters at \$9.25.

Calves.

Receipts 300. Market is steady to strong; tops \$15.50, few at \$16; culls and common \$10 @ 11.50.

Sheep and Lambs.

Receipts 500. Quality plain; market steady; few good to choice clipped lambs \$12.25; few good culls \$16; culls and common clipped \$11.50 @ 12.50.

so that trade is not large. Prices average several cents a pound higher than at this time a year ago.

Chicago.—Twins 22½ @ 22½c; single daisies 22½ @ 23½c; double daisies at 22½ @ 23c; Longhorns 22½ @ 22½c.

New York.—Single daisies at 24 @ 24½c.

Philadelphia.—Single daisies 24½ @ 24½c; Longhorns 24½ @ 24½c.

WOOL.

The wool trade is quiet for the most part, with occasional spurts of brisk buying of small lots to cover immediate needs of mills. Activity is not general, however. Sales of foreign wool held in bond for re-export from Boston have attracted attention, as they show clearly that Boston is below the world parity. Mills are keeping production of goods in check in an effort to widen their manufacturing margins. While this creates a healthier situation in the goods market, it reduces the amount of raw wool required. Foreign markets remain strong. The London sale closed after selling 78,000 bales to the Continent, 43,000 to British buyers, and 4,000 bales to the American trade. Sales in the west are scattered with prices one to two cents below the peak of several weeks ago. Some old clips in Ohio and Pennsylvania have been bought at 39 cents at country points.

GRAND RAPIDS.

Potatoes \$1 bu; leaf lettuce 15 @ 16c lb; radishes 60 @ 75c dozen bunches; parsnips 65c bu; green onions 12½ @ 15c bunch (36 onions); vegetable oysters 50c dozen bunches; parsley 40c dozen bunches; apples, Spies \$1.75 @ 2.50 bu; Starks and Suttons \$1; Russets \$1 @ 1.25; Baldwins 50c @ \$1 bu; Ben Davis and Gano 50 @ 75c bu; various other varieties 50c @ \$1; beans, white \$3.85 cwt; red \$5 cwt; wheat \$1.13 bu; rye 77c bu; hens 24 @ 28c lb; pork 13½ @ 14c; veal 15c; beef 6 @ 10c; lamb 25c; mutton 11c; eggs 21 @ 22c; butter-fat 52c lb.

DETROIT CITY MARKET.

Apples 50c @ \$3.50 bu; beets 75c @ \$1 bu; cabbage \$1 @ 1.25 bu; savoy cabbage \$1.25 @ 2 bu; carrots 80c @ \$1 a bu; dry onions \$1.50 @ 1.75 bu; green onions 50 @ 60c dozen bunches; root parsley 75c @ \$1.25 bu; potatoes 60c @ \$1.40 bu; turnips \$1.50 @ 2 bu; leeks 75c @ \$1 dozen bunches; parsnips \$1.50 @ 2.25 bu; vegetable oysters 75c @ \$1 dozen bunches; horseradish \$2.50 @ 4 bu; root celery \$1.50 @ 2.50 bu; eggs, retail 30 @ 35c; hens, wholesale 30 @ 33c; retail 33 @ 35c; springers, wholesale 28 @ 31c; retail 32 @ 34c; Leghorn springers, hens, wholesale 27 @ 29c; veal 19 @ 21c; dressed hogs 17 @ 19c; dressed poultry, hens, retail 35 @ 38c; springers, retail 35 @ 38c.

CATTLE PRICES HIGHEST OF THE YEAR.

ALL killing classes of cattle have reached new high prices for the season. The Chicago top for heavy steers stands at \$13.75, with fat yearlings at \$12.50. Most of the weighty steers are selling at \$12.50 to \$13, and yearlings at \$9.50 to \$11.50. Fat cows are quotable above \$9.25, but the bulk of sales run \$6.50 to \$8.25, while yearling heifers are going to the shambles at \$9 to \$10.25.

Small receipts and anticipated improvement in meat trade with the ending of Lent were the basis for the strength. Steer prices have advanced since the first of the year with only small setbacks, but the rise has not brought heavy runs, which is a convincing symptom that numbers of marketable cattle in the country are moderate. Supplies of heavy cattle are extremely light, but receipts of lower grades of light cattle are about all the market will stand. These have advanced but little in the past month in spite of the fact that liquidation of short-feds began to abate about that time.

Out of the thirty-two principal lines of agriculture and industry reporting to the executive committee of the Midwest Shippers' Advisory Board, thirteen lines expect increased business in the next three months, as compared with the corresponding period in 1926; fourteen lines report that their probable business activity during the coming quarter will approximately equal their business in the same months last year, while five lines report that their business during the next ninety days will be below that done last year.

PLAN TO ATTEND.

DURING the first week of August the American Country Life Association and a number of allied organizations will hold sessions at the Michigan State College. A camp is being arranged so visitors can bring their families and their camping outfits, and at little cost spend the week enjoying the various programs.

LAMB PRICES REACT.

LAMB prices advanced to a Chicago top of \$16.85 for fat Colorados, but a setback occurred in the last few days. Shorn lambs sold as high as \$15.75, and native springers designed for Easter trade at \$22. Receipts at leading markets remain moderate, and arrivals of California spring lambs on eastern dressed meat markets have exerted no depressing effect, but probably helped to halt the advancing tendency. Some frozen native and Argentine lamb carcasses are being offered in the east. In the feedlots of northern Colorado and western Nebraska, which have most of the remaining supply of fed lambs, there were estimated to be 442,000 head still on feed on March 26, compared with 560,000 a year ago and 685,000 two years ago.

HOG MARKET ON SLIPPERY FOOTING.

HOG prices have been extremely erratic in the last three weeks. The market has had two fair rallies, but these did not hold and, at present, values are the lowest of the season. Since the first of the year, the numbers available for slaughter have been slightly larger than last year and the stocks of product in storage are rather burdensome in the face of the continued narrow export demand.

Stocks of hog meats at Chicago increased 46,000,000 pounds since January 1, compared with an increase of only 13,000,000 pounds last year. In

March alone, they gained 21,000,000 pounds, against a decrease of 2,000,000 pounds in 1926. Stocks of lard increased 21,000,000 pounds since January 1, against a gain of 25,000,000 pounds a year ago. Prices of hogs in Germany, and of Wiltshire sides in Liverpool are about 25 per cent lower than last year. This is more of a decline than has occurred in our prices, hence the difficulty of making export sales.

Little change in the market conditions for killing cattle is probable in the next month or two. By that time, grass cattle will begin to appear on the scene. Some of the southern cattle at Kansas City already show signs of a grass diet, but the early supply of grassers from Texas will be moderate. South Texans sold at Kansas City recently at \$8.60, the highest since August, 1920. The veal calf market strengthened under pre-Easter demand for choice vealers, but further weak spells are probable in the next thirty days.

Stocks and feeder cattle prices keep edging upward. Demand is fairly persistent in spite of the high price level and supplies reaching the principal markets are scanty. The total numbers purchased recently have been nearly as large as last year, but considerably smaller than two years ago.

Demand for Veal is Good
Ship YourDRESSED CALVES
and LIVE POULTRYTO
DETROIT BEEF COMPANY

1903 Adelaide St. Detroit, Mich.

Oldest and Most Reliable Commission

House in Detroit
Tags and Quotations and New Ship-
Guide Free on Application.

SEEDS AND NURSERY STOCK

CABBAGE PLANTS. My frost-proof cabbage plants will head three weeks earlier than home-grown plants and double your profits. Varieties: Copenhagen Market, Early Jersey and Charleston Wakefield, Flat Dutch and Golden Acre. Prices, by express in quantities \$1.00 per 1000. By mail, postpaid, 500 for \$1.25; 1000 for \$2.25. Tomato plants leading varieties, by mail, postpaid: 500 for \$1.50; 1000 for \$2.50. By express, 10,000 and over, \$1.50 per 1000. All plants wrapped in damp moss to assure safe arrival. Prompt shipments, satisfaction guaranteed. P. D. Fulwood, Tifton, Ga.

TIFTON'S RELIABLE PLANTS. Frost Proof Cabbage, Bermuda onion plants. Varieties: Copenhagen Market, Early Jersey and Charleston Wakefield, Flat Dutch, and Succession. Tomato plants. Varieties: Greater Baltimore, Bonnie Best, Earliana, and Livingstone Globe. Prices: Postpaid, 250, \$1.00; 500, \$1.50; 1000, \$2.50. Express collect: \$1.50, 1000; 10,000 and over \$1.25 1000. We guarantee to ship size to please you. References: Bradstreet, Bank of Tifton, and Postmaster. Tifton Plant Co., Tifton, Ga.

MASTODON—the marvelous everbearing strawberry, 100 plants \$3. Raspberry, grapes, shrubs, 12 spirals \$1. 100 Eldorado Blackberry \$1.75. Cherry trees, fruit, shade. Everything to plant. Seed potatoes, 100 Washington asparagus roots 75c, 1000 2-yr. \$7. Gardeners Hubbard squash seed \$1 pound. Wax beans, sweet corn, 1000 strawberry plants \$3. Write. Prestage Nursery, Allegan, Mich.

REGISTERED AND CERTIFIED SEED CORN. Clement's white cap yellow dent, fire-dried on racks, seed tested and guaranteed. Also Worthy seed oats. Good Seed is scarce order yours early. Paul Clement, Britton, Michigan. Member of the Mich. Crop Improvement Association.

SEED CORN—Fire Dried. Certified Polar Yellow Dent (frost resistant) \$7.00 per bu. Duncan Yellow Dent (good for ensilage or grain crop) \$6.00 per bu. 90-day eight-rowed Yellow Flint \$5.00 per bu. All corn is shelled and graded. 56 lbs. to the bu. Bags free. Arthur W. Jewett, Jr., Mason, Mich.

COPENHAGEN and Wakefield Cabbage plants, \$1.00 1000. Collard \$1.00; tomato \$1.00; Bell Pepper \$1.50; onion \$1.25; Porto Rico Potato \$2. Large, open field grown. Carefully packed. Quitman Plant Co., Quitman, Georgia.

PURE SEEDS of high germination. Certified Pickett Yellow Dent corn \$7 per bu. Certified Wisconsin Pedigree barley, grown from head-selected seed stock, \$1.50 per bu. Certified Robust beans \$4.50 per bu. Fritz Mantey, Fairgrove, Mich.

GUARANTEED GRAPE PLANTS from highest producing vineyard in Michigan. Lowest prices ever quoted. Garden collection Concord, Niagara, Delaware, six each, dollar prepaid. Local agents wanted. Root & Son, Paw Paw, Mich.

FROST-PROOF CABBAGE—onions, also tomatoes, strong hardy plants. Leading varieties, 100, 40c; 300, 85c; 500, \$1.10; 1,000, \$2.00. Pepper, 100, 50c; 1,000, \$2.75. Everything postpaid and guaranteed. East Texas Plant Co., Ponta, Texas.

WOLVERINE OATS SOLD OUT—Improved Robust Beans, absolutely pure, choice stock, \$7.00 per hundred, freight prepaid. America Banner Wheat. A. B. Cook, Owosso, Mich.

FROST-PROOF CABBAGE and onion plants; large rooted, quality plants. All varieties. Quick shipment. Postpaid, 500, \$1.00. Express 75c thousand. Hollywood Farms, Pavo, Ga.

FROST-PROOF PLANTS—Bermuda Onion, large type, early Wakefield Cabbage, 500, 75c; 1,000, \$1.25; 5,000, \$5.00. Now shipping. Satisfaction guaranteed. Other plants. Catalog, valuable information free. Progress Plant Co., Ashburn, Georgia.

ASPARAGUS ROOTS—quality and price are right. Price list and culture directions free. J. C. Dunham, Lawton, Mich.

FOR SALE—Northern grown Certified Golden Glow seed corn and Certified Robust Seed Beans. L. G. Van Liew, Bellaire, Michigan.

WASHINGTON ASPARAGUS ROOTS—one year old. \$1.50 per hundred, delivered. H. G. Bliss, Albion, Mich.

STRAWBERRIES, \$3.00 to \$3.50 1,000; raspberries, blackberries, grapevines. Wholesale prices. Cloverleaf Nursery, Three Oaks, Mich.

FOR SALE—Strawberry and raspberry plants. Dunlap \$3.50 per 1000. Write for bargain prices. Fred Stanley, Bangor, Mich.

CHOICE SEED SPELTZ and Certified Wisconsin pedigreed six-row barley, \$1.50 bu. Harry Box, Lansing, Mich.

FOR SALE—1925 Certified Wolverine Oats and Wilk's Two-row Barley. John C. Wilk St. Louis, Mich.

60 LARGE GLADIOLI \$1. None alike. 12 Dahlias, \$1.25. Catalogue. A. Sherman, Chicopee Falls, Mass.

TOBACCO

SEND US 5 NAMES of tobacco users with order for 4 lbs. of our tobacco for \$1, and get an extra lb. free. Pay when received. Farmers' Association, West Paducah, Ky.

HOMESPUN TOBACCO—Guaranteed, good flavor. Chewing, 5 lbs., \$1.00; 10, \$1.75. Smoking, 5 lbs., 75c; 10, \$1.25. Pay when received. Farmers' Union, Mayfield, Ky.

GUARANTEED HOMESPUN TOBACCO: Chewing, 5 lbs., \$1.00; 10, \$1.75. Smoking, 10, \$1.50. Pipe Free! Pay when received. United Farmers, Bardonia, Kentucky.

SEND ME—the name and address of 10 tobacco users with 25c to cover postage and get 2 lbs. of tobacco free, state what kind wanted. Roy Carlton, West Paducah, Kentucky.

POULTRY

PULLETS, COCKERELS—A bargain in eight-weeks Barred and White Rocks, Reds, Leghorns. If you want a flock of laying hens for this fall and winter, we want you to read the description and see the price of these birds. Send for our Pullet and Cockerel Circular. State Farms Association, Kalamazoo, Mich.

GESE EGGS THAT HATCH!—Fourth successful season as shippers of Mammoth Toulouse eggs. Price 50c each postpaid. Sold under guarantee of fertility. Goslings \$1 each. Order from this ad today. Hart-horne Hill Farm, Middleville, Michigan.

WHITTAKER'S MICHIGAN CERTIFIED REDS—BOTH COMBS—Trapped, Bloodtested, Michigan's Greatest Color and Egg Strain. Chicks, Eggs, Cockerels. Catalog Free. Interlakes Farm, Box 9, Lawrence, Mich.

BARRED PLYMOUTH ROCK hatching eggs and baby chicks from our high record egg producing strain. Circular on request. F. E. Fogle, Okemos, Mich.

HATCHING EGGS—S. C. Rhode Island Reds, trapped. Splendid color and type. Record layers. Prices reasonable. Write for circular. Koenig & Banne, Holland, Mich., R. 4.

DUCKINGS WANTED—Only Michigan farmers and hatcheries need answer. Write J. Taylor, 136 North Post Ave., Detroit, Mich.

HATCHING EGGS—S. C. Rhode Island Reds, pure-bred, 15 eggs \$1.50, prepaid. Victor Niente, R. No. 1, Trenary, Mich.

PULLETS—One thousand twelve weeks old Leghorn pullets for sale, Feb. hatching, July and August layers. H. L. French, Pomeroy, Ohio.

S. C. BUFF LEGHORN CHICKS—Michigan State Accredited. Send for circular. J. W. Webster & Son, Bath, Mich.

ROSE COMB RHODE ISLAND REDS—Hatching Eggs \$1.25 for 15. \$7.00 per 100. Postpaid. Mrs. Albert Marwood, R. 4, Charlevoix, Mich.

RINGLET BARRED ROCK EGGS—\$6 per hundred. Blood tested and Michigan Accredited flock. Robt. Martin, Woodland, Mich.

BARRED ROCK EGGS—Heavy layers. Blood tested. State accredited. Write for prices. W. F. Alexander, Owosso, Mich.

PURE TOULOUSE EGGS, \$4.50 per 10. Loyd Southworth, Allen, Mich.

WHITE LEGHORN PULLETS and Cockerels, best stock, lowest prices. John Wolding, Holland, Mich.

TURKEYS

WHITE HOLLAND TURKEYS, toms and hens. Toulouse ganders; White Pekin ducks, drakes. Aldam Whitcomb, Byron Center, Mich.

TURKEY EGGS—Thousands of them. All breeds. Special prices. Eastern Ohio Poultry Farm, Bealsville, Ohio.

BABY CHICKS

KLAGER'S "PURE-BRED" CHICKS are from healthy parent flocks culled for egg production. Will grow into profits for you. Most quality per dollar. Cert-O-Cult Chicks. Fire leading breeds, White Rocks, Barred Rocks, Rhode Island Reds, White Leghorns, White Wyandottes. Get information about our chicks before placing your order for the season. Order now—chicks delivered when you want them. 100% live delivery. Postage prepaid. Descriptive circular free. Klager's Hatchery, Bridgewater, Michigan.

MICHIGAN ACCREDITED CHICKS—Buy your chicks from heavy laying flocks that are officially accredited by inspectors supervised by Michigan State College, and of prize winners at the Holland Poultry Show. White and Brown Leghorns, Anconas, Barred Rocks, S. C. R. I. Reds. 100% live delivery postpaid. Send at once for free catalogue. Chicks, 8 cents and up. Full particulars and detailed prices. Hillview Hatchery, C. Boren, Prop., Holland, Mich., R. 12, Box B.

WHITE LEGHORN CHICKS sired by pedigreed males, records 200 to 293 eggs. Low prepaid prices. Shipped anywhere C. O. D. and guaranteed. Hatching eggs, cockerels, pullets, hens, egg-bred 27 years. Winners at 17 egg contests. Write for free catalog and special price bulletin. Geo. B. Ferris, 934 Union, Grand Rapids, Michigan.

WE HATCH ONLY GENUINE Tom Barron English White Leghorn large type overlying combs with egg laying qualities. Non-setters. Barred Rocks from M. S. C. stock. 1927 flocks headed with cockerels whose dams have official trap nest records, 203-233 M. S. C. egg laying contest. Free circular explaining all. Hillside Hatchery, Holland, Mich.

REDUCED PRICES ON BABY CHICKS for May, 100% live delivery. Guaranteed pure-bred. Leghorns 10c; Rocks and Reds 12c; Wyandottes and Orpingtons 13c. Discount on large orders. Send for free catalog and prices. Model Hatchery, Box 9, Monroe, Indiana.

GOOD STOCK—Michigan Accredited, blood-tested for four seasons, and eleven years' experience operating incubators, enable us to produce big, fluffy chicks ready to live and grow. Seven breeds hatching each week. Catalog. Pierce Hatchery, Jerome, Michigan.

BABY CHICKS—Healthy chicks from carefully culled flocks of the following breeds: W. Leghorns, W. Wyandottes, Barred Rocks, S. C. R. I. Reds. High quality and reasonable prices. Jones Chick Hatchery, 60 S. Monroe St., Coldwater, Mich.

MICHIGAN ACCREDITED blood tested Chicks backed by real bred-to-lay breeding and at live and let live prices. Quick service. 100% live delivery, and a square deal. Big discount on large orders. Catalog free. Carl Poultry Farms, Dept. A, Montgomery, Mich.

BABY CHICKS—White Leghorns, \$10 per 100; White Rocks, R. I. Reds and Barred Plymouth Rocks, \$13 per 100. Prepaid by parcel post. Snowflake Poultry Farm & Hatchery, R. 5, Middleville, Mich., L. Van-Schie, Prop.

BABY CHICKS—English S. C. W. Leghorns at \$10 per 100. 100% live delivery guaranteed. Order from this ad and save time. Waterway's Hatchery, R. No. 4, Holland, Mich.

CHICKS—Pullets, Barron's large English White Leghorns. We import direct from England. Breed English Leghorns only. Catalog free. Willacker Poultry Farm, Box M, Washington, Ohio.

QUEEN QUALITY ACCREDITED CHICKS—Hollywood and Tanager, S. C. White Leghorns, \$11 per 100. Barred Rocks, S. C. and R. C. Reds, \$14 per 100. Queen Hatchery, Zeeland, Mich.

BABY CHICKS AND EGGS—Superior Ringlet Barred Rocks, Rose Comb Reds, Barron and Tanager White Leghorns. Catalogue. Wyndham's Ideal Poultry Yards, Tiffin, Ohio.

BABY CHICKS—Standard varieties from strong producing and carefully culled flocks. Circular of prices, also discounts in large orders. Shepard Poultry Farm, Littlefield, Mich.

RICHARDSON'S ROCKY RIDGE Barred Rock Baby Chicks, from stock blood-tested third time for Bacillary White Diarrhea. W. T. Richardson, Hanover, Mich.

PULLETS—6 to 10 weeks old. Chicks of 15 varieties. Can ship at once. Some blood tested, 175 to 312-egg breeding. Free Circular. Beckman Hatchery, Grand Rapids, Mich.

HI-GRADE LEGHORN CHICKS—April 10c, May 9c, June 8c. 100% live delivery guaranteed. Shadyawn Hatchery, R. 3, Zeeland, Mich.

CHICKS—Stock best price lowest. Explanation free. 15,000 comp. Two hatches each week. Merrill Hatchery, Merrill, Mich.

SITUATIONS WANTED

EXPERIENCED FARMER wishes change, ten years' practical experience on College farm, six years managing present farm. First-class ploughman, well up in cow testing and general farm management. Scotch, age 33. Michigan Farmer, Box 93, Detroit, Mich.

WANTED—Position as herdsman, expert milker and caretaker. Prefer good dairy section. Box 94, Michigan Farmer, Detroit, Mich.

AGENTS WANTED

IF YOU ARE A MAN worthy of the name and not afraid to work, I'll bet you \$50 you can't work for us thirty days and earn less than \$200. Think I'm bluffing? Then answer this ad and show me up. Openings for managers. Wonder Box sells on sight. The best selling proposition in America today. Write Tom Walker, Dept. 164, Pittsburgh, Pa.

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results under classified headings. Try it for want ads and for advertising, miscellaneous articles for sale or exchange. Poultry advertising will be run in this department at classified rates, or in display columns at commercial rates. Rates 8 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 6 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order. Live stock advertising has a separate department and is not accepted as classified. Minimum charge 10 words.

Special Notice

All advertising copy discontinued orders or change of copy intended for the Classified Department must reach this office ten days in advance of publication date.

One	Four	One	Four
10.....\$0.30	\$1.20	20.....\$1.00	\$4.00
11......88	3.52	21......92	3.68
12......96	3.84	22......96	3.84
13.....1.04	4.16	23.....1.00	4.00
14.....1.12	4.48	24.....1.04	4.16
15.....1.20	4.80	25.....1.08	4.32
16.....1.28	5.12	26.....1.12	4.48
17.....1.36	5.44	27.....1.16	4.64
18.....1.44	5.76	28.....1.20	4.80
19.....1.52	6.08	29.....1.24	4.96
20.....1.60	6.40	30.....1.28	5.12
21.....1.68	6.72	31.....1.32	5.28
22.....1.76	7.04	32.....1.36	5.44
23.....1.84	7.36	33.....1.40	5.60
24.....1.92	7.68	34.....1.44	5.76
25.....2.00	8.00	35.....1.48	5.92

REAL ESTATE

FOR SALE—FARM OF 355 ACRES on paved road M-17 one mile from Francisco Station, M. C. R. R. about six miles West of Chelsea, 20 miles West of Ann Arbor, 17 Miles East of Jackson, Michigan. About 200 acres of plow land under fine state of cultivation; balance woods, pasture land and huckleberry marsh. Dark heavy soil. Fences in good repair. Fine brick house with large wood furnace, 3 basement barns, garage, chicken house and other out buildings. It is known as the Michael Schenk farm and is one of the very best farms in Southern Michigan. It would make an ideal country home. No better in Michigan for farming purposes. For full particulars, see or write, Elmer Kirkby, Attorney and Administrator, 124 Michigan Ave. West, Jackson, Michigan.

RECEIVER'S SALE—1000 acres fine pasture land in one field, woven wire fenced, watered by fine trout stream, one mile to railroad, three miles to good town. In Michigan's best dairy and sheep section. Price \$3.00 per acre. Write W. F. Umphrey, Ewart, Michigan.

FOR SALE—110 acres, with milk route, dairy herd. Complete equipment. Income last year, four thousand. Immediate possession, immediate income. W. B. Stickle, Owner, Three Oaks, Mich.

FOR SALE CHEAP—60 acres, stock, grain and fruit farm. Good buildings and soil. Well fenced. One mile Onaway County Normal. H. S. Gillespie, Onaway, Mich.

FOR SALE—100 ACRES—less than 1 hr. by truck to Cleveland or Akron, best markets, cement road, good land, buildings, school. Address Box 92, Michigan Farmer, Detroit, Mich.

SACRIFICE—135 acres on State Highway. Productive soil and good buildings. 1/4 mi. to markets. Owner, F. Slanker, 436 S. Division, Ann Arbor, Mich.

WONDERFUL OPPORTUNITIES—Southern Georgia farm lands. Write for complete information. Chamber of Commerce, Quitman, Ga.

FOR SALE—70 acres, good buildings, four miles from Gaylord. Henry Widger, Gaylord, Mich.

WANTED FARMS

WANTED—To hear from owner of farm or unimproved land for sale. O. Hawley, Baldwin, Wis.

MISCELLANEOUS

NOTICE—Those interested in the Pacific Coast send 50c for three months' trial subscription to the Dairy Journal, 1033 Chamber of Commerce Bldg., Portland, Oregon.

FOR SALE—20 hives of bees, frames, excluders, comb supers, other equipment. No disease. Thomas J. Herivel, 9339 Burnette, Detroit.

FOR SALE—A Hercules Stump Machine in good order. Inquire of Mr. Lewis Lake, Lum, Mich.

SPECIMENS WANTED—Meteorite or natural metallic iron. Stuart Perry, Adrian, Mich.

CHOICE EXTRACTED HONEY—5 lbs. \$1.00 postpaid. Homer Buzzard, Fenton, Mich.

FARM MACHINERY

FOR SALE—One Judson Bean Picker with mill and gas engine complete. Clarence Wilcox, R. 6, Brown City, Mich.

PATENT ATTORNEYS

PATENT SENSE—valuable book (free) for inventors seeking largest deserved profits. Lacey & Lacey, 694 F St., Washington, D. C. Established 1869.

MATTRESSES

MATTRESSES made any size, low factory prices. Catalog free. Peoria Bedding Company, Peoria, Ill.

MISCELLANEOUS WANTED

BIGGER CREAM CHECKS depend upon correct weight and tests, and price received for butter by the firm to whom you ship your cream. We are located in the Fruit Belt and tourist section where the highest prices for butter prevail. We guarantee satisfaction and protect you from any loss. We mail check the same day cream is received. For information and shipping tags, write The Hartford Creamery, Hartford, Mich.

PET STOCK

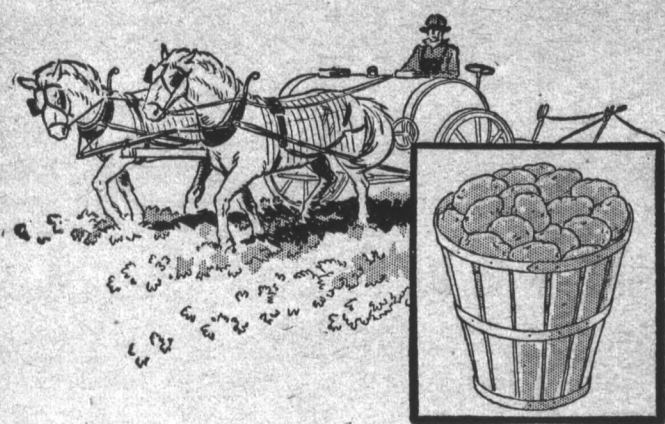
FOR SALE—English Shepherd puppies, seven weeks old, from strictly heel driving parents. Males \$7, females \$5. One English Shepherd female, 1-yr.-old, heel driver, \$20. English Shepherd female 3 yrs. old, broken, a heel driver, and gets cows alone, \$25. Safe arrival and satisfaction guaranteed. Earl White, Live Stock Dealer, Arcade, N. Y.

FOR SALE—Pedigreed White Collie Pups from natural heelers. Make fine stock dogs and companions. Price \$10 and \$15. Also pedigreed police pups \$15 and \$20 each. Homestead Kennels, Saranac, Mich.

FOR SALE—A few extra nice white collies, farm bred, at farmer's prices. J. E. Hegner, R. No. 4, Reed City, Mich.

COLLIES—stock dogs, beauties. Write for pictures. Cloverleaf Farm, Tiffin, Ohio.

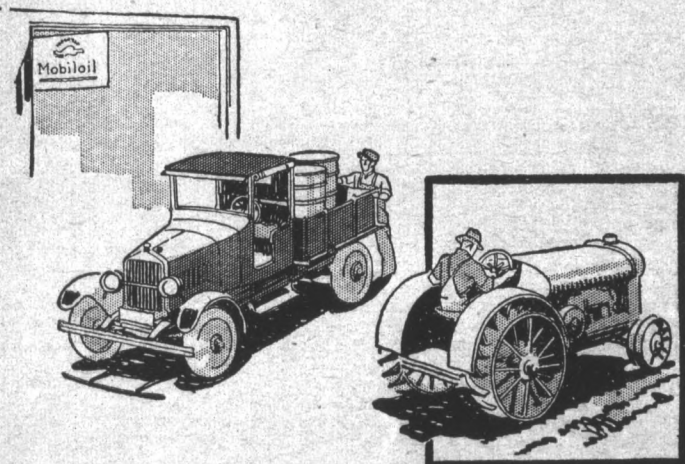
What experiment stations report on potato spraying



In 323 tests during the past nine years, a Pennsylvania experiment station has compared the yield of sprayed and unsprayed potatoes. The sprayed vines have produced an average of 67 bushels of potatoes more per acre than those not sprayed.

In North Carolina 10-year tests show an average increase from spraying of 53.3 bushels per acre. Ohio demonstrations during the past 3 years have averaged an increase of 70 bushels per acre for the sprayed vines.

Mobiloil gives this same marked economy



Buying low-priced oil is like trying to save money by not spraying potatoes. To be sure, you pay a few cents extra for Gargoyle Mobiloil. But you get an engineering margin of safety in lubrication which is worth many dollars in a year's running.

In tractors, Mobiloil users frequently report that Mobiloil lasts twice as long as ordinary oil. And the costly delays from overheating and breakdowns are materially cut. In cars and trucks Mobiloil's economy is equally striking.

If you think any oil will do, consider this fact:

THE correct grades of Gargoyle Mobiloil for engine lubrication of prominent passenger cars are specified below.

The grades of Gargoyle Mobiloil, indicated below, are Mobiloil "E," Mobiloil Arctic ("Arc"), Mobiloil "A," Mobiloil "BB," and Mobiloil "B."

Follow winter recommendations when temperatures from 32° F (freezing) to 0° F (zero) prevail. Below zero use Gargoyle Mobiloil Arctic (except Ford Cars, use Gargoyle Mobiloil "E").

If your car is not listed below see any Mobiloil dealer for the complete Chart. It recommends the correct grades for all cars, trucks and tractors.



NAMES OF PASSENGER CARS	1927		1926		1925		1924	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buick.....	A	Arc	A	Arc	A	Arc	A	Arc
Cadillac.....	BB	Arc	BB	Arc	A	Arc	A	Arc
Chandler Sp. 6.....	A	A	A	A	A	A	A	A
" other mods.....	A	Arc	A	Arc	A	Arc	A	Arc
Chevrolet.....	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chrysler 4.....	A	Arc	A	Arc	A	Arc	A	Arc
" other mods.....	A	A	A	A	A	A	A	A
Dodge Brothers.....	A	Arc	A	Arc	A	Arc	A	Arc
Ford.....	E	E	E	E	E	E	E	E
Franklin.....	BB	BB	BB	BB	BB	BB	BB	BB
Hupmobile.....	A	Arc	A	Arc	A	Arc	A	Arc
Jewett.....	A	Arc	A	Arc	A	Arc	A	Arc
Jordan 6.....	A	Arc	A	Arc	A	Arc	A	Arc
" 8.....	A	Arc	A	Arc	A	Arc	A	Arc
Lincoln.....	A	A	A	A	A	A	A	A
Moon.....	A	Arc	A	Arc	A	Arc	A	Arc
Nash.....	A	Arc	A	Arc	A	Arc	A	Arc
Oakland.....	A	Arc	A	Arc	A	Arc	A	Arc
Oldsmobile.....	A	Arc	A	Arc	A	Arc	A	Arc
Overland.....	A	Arc	A	Arc	A	Arc	A	Arc
Packard 6.....	A	Arc	A	Arc	A	Arc	A	Arc
" 8.....	A	Arc	A	Arc	A	Arc	A	Arc
Paige.....	A	Arc	A	Arc	A	Arc	A	Arc
Pierce-Arrow.....	A	A	A	A	A	A	A	A
Star.....	A	Arc	A	Arc	A	Arc	A	Arc
Willys-Knight 4.....	A	Arc	A	Arc	A	Arc	A	Arc
" 6.....	A	Arc	A	Arc	A	Arc	A	Arc

50% of all engine troubles are directly caused by faulty lubrication. The oil you pour into the crankcase today determines the size of tomorrow's repair bills. The added margin of safety in Mobiloil is important, both in postponing expense and increasing the usefulness of your engines.

When necessary, many farmers find that Mobiloil is well worth a special trip to town. Let the nearby dealer supply you with a season's supply of Mobiloil, now. In barrel and half-barrel lots Mobiloil can be purchased at a substantial saving.

Be sure to secure the right grade of Mobiloil to use in your tractor, truck and car. For Mobiloil is recommended with scientific accuracy for all engines. The 42 Mobiloil engineers have painstakingly studied each make and model of engine that you drive. The recommendations are in the complete Chart at all dealers.

Start using Mobiloil today. Before the year is out you will find that the extra margin of safety in Mobiloil has substantially reduced the cost of operation of your car, truck or tractor.

VACUUM OIL COMPANY

MAIN BRANCHES: New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, Dallas

Other branches and distributing warehouses throughout the country