

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
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Whole No. 4750



Some hunters give heed to posted signs while others do not. Is it unreasonable to ask the hunter to secure the written consent of the farmer before going on his farm, as provided in the proposed trespassing bill we published February 12?



**"When you
get to town
Stop at the Havoline dealer's
and have him change the oil—
and grease everything.
Don't forget—"**

Sound advice, that. Next time you're in town, get your car *completely lubricated*—from bumper to rear end. Clean Havoline Oil—the right grade—for the crank-case. Complete Havoline grease job for the chassis—and front wheels. A look into transmission and differential. Finally, light oil forced into all springs.

Then, on the way home, notice the difference. Notice the easier riding, the new **POWER**. You're getting the power you paid for when you bought that car—power you never find in an under-oiled or wrongly oiled car or truck.

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Havoline, the power oil, costs no more than any other well-known make of oil. Order now—in 5-gallon cans, or in 30- or 50-gallon drums—from nearby Havoline dealer or Indian station.



And, while you're about it, try Indian Gas, Havoline's partner in power. Indian is a fine, quick-starting, anti-knock gas—always dependable. Havoline plus Indian—an unbeatable power-combination.



Indian Refining Company
Incorporated
Lawrenceville, Ill.



Oil is more than oil—it is power

Travel Accident Insurance

GEORGE M. SLOCUM, publisher of the Michigan Business Farmer, a bi-weekly farm paper published at Mt. Clemens, Michigan, ran the following statement in his issue of February 12:

WE are all through with cheap accident policies. The Business Farmer will not knowingly be a party to a scheme which is so easily misrepresented. The fault lies not with the terms of the policies, or the companies which issue them, but that promises and misrepresentations regarding these policies have been made to farmers in Michigan, which brand them as something which The Business Farmer can have nothing to do with.

The terms under which insurance is paid are so restricted in the policy that it is usually only after a serious accident happens to the assured that he wakes up to find that his cheap accident policy is only worth its weight as scrap paper.

Unscrupulous agents have promised farmers in Michigan that these dollar policies gave full accident coverage—nothing could be farther from the facts!

An official of one of the largest accident insurance companies in America advised us recently that the actual cost of an accident policy which gave full coverage to a farmer would be \$34.00 per thousand per year!

The value of the protection which a dollar policy gives to the farmer who buys it, can be determined from this statement.

The Business Farmer does not apologize for offering this service to our readers. The policy we offered was issued by a strong, reliable company which is supplying some of the largest daily papers with the identical policy! We have never seen a better or more liberal accident policy offered for a dollar. Our agents in the field were instructed to offer them at cost to us, if the subscriber desired it, and to point out the limitations of the policy before accepting the application.

We have carried out our agreement, so has the company issuing the policies. There are, to our knowledge, no existing claims unsettled, in regard to any policy we have issued. Every policy will remain in full force to its expiration.

But as we stated in the first paragraph, we are all through with cheap accident insurance policies and if any agent has misrepresented the policies, we will cheerfully return the amount of the unexpired term of the insurance policy, out of our own pocket.

GEORGE M. SLOCUM, Publisher.

Perhaps Mr. Slocum's charges of misrepresentation refer only to his own agents, or to the agents of a national farm paper which has been offering a similar service to the farmers of this state. But as The Michigan Farmer has also extended a travel accident insurance service to its readers, we are giving Mr. Slocum's statement added publicity in our columns, and will note a few points in connection with it which may be of interest to readers who have taken advantage of our travel accident service.

Mr. Slocum says he has never seen a better or more liberal accident policy offered for a dollar, than the one he has been putting out. Evidently Michigan farmers were not of the same opinion, since his publishers' statement for the six months ending December 31, 1926, shows that during that period his publication sold a total of 375 policies, while the Michigan Farmer statement of the same date shows that 18,338 farmers took advantage of our travel accident insurance service during the same period. Perhaps a comparison of these figures had nothing to do with Mr. Slocum's decision to drop the service, but a comparison of the policies offered may have had something to do with the figures. We quote from a page advertisement of this service in Mr. Slocum's paper of June 19, 1926, under the heading, "What the Policy Says in Part:—" as follows:

"Paragraph 3. By wrecking of any private horse-drawn vehicle, not being used for business purposes, as specified in policy."

"Paragraph 4. By the wrecking of any private automobile, not being used for business purposes, as specified in policy."

It is not to be wondered at that, as Mr. Slocum states, the holder of a policy containing such provisions might wake up after a serious accident to find that his cheap accident policy is only worth its weight as scrap paper. Perhaps Mr. Slocum has never seen one of the Federal Life Insurance Company's travel accident policies put out by The Michigan Farmer. This policy contains no such limitations, as the reader who has one will see by referring to it. It covers him when, on business as well as when on pleasure bent. The great majority of the many loss claims settled under these policies were for accidents which would be excluded under the restrictions quoted from Mr. Slocum's paper. A single example will serve to illustrate this point. A claim of 78.57 was paid to John A. Thurman, of Mt. Clemens, Michigan for injuries sustained from tipping over with a load of hay on the public highway, on July 16, 1926. Perhaps Mr. Slocum may not have heard of this typical case of fair settlement under our Federal travel accident policies.

Perhaps Mr. Slocum has good authority for his statement regarding full coverage accident rates. However, I hold in my hand, as I write this, a full coverage accident policy which I have carried for twenty years, written by one of the oldest and strongest casualty companies in the United States. The face of this policy when written was \$2,500.00, with provision for double indemnity for loss of life or serious injury. Like The Michigan Farmer Federal travel accident policy, the indemnity increased ten per cent per year for five years. It now covers single indemnity of \$3,750.00 and double indemnity of \$7,500.00. This policy also provides for beneficiary indemnities, covering my wife against accident as well as myself. The annual premium on this policy is \$15.00, or \$2.50 per \$1,000 coverage.

I also carry a Michigan Farmer Federal travel accident policy, because it is valuable insurance at low cost, as thousands of Michigan farmers have learned. One of the big, sound life insurance companies of the country, and The Michigan Farmer, with a record of more than eighty years of honest service to Michigan farmers, stand solidly behind it.

This service was offered to our readers because of its unquestionable value to them, and the general need of farmers for such insurance protection under present day conditions. Its reception by our readers proves conclusively that it is appreciated by them, and we are glad to be able to offer them this valuable service.

I. R. WATERBURY, Manager.

STUDY COSTS OF APPLYING LIME.

A GROUP of Emmet county farmers who kept cost accounts of the expense of applying equivalent amounts of finely ground limestone and quicklime, found that there was little difference in the cost of the materials as correctors of soil acidity. The lower price of the limestone was compen-

sated by the saving in freight

Members of the Berrien county horticultural society recently held a meeting at Benton Harbor at which one of the most popular subjects for discussion was the subject for top-working Duchess apple trees. The vogue of the Duchess seems to be definitely past in Michigan.

DEVOTED
TO
MICHIGAN
—
VOLUME CLXVIII

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
PUBLISHED WEEKLY
ESTABLISHED 1843.

A Practical Journal for the Rural Family
MICHIGAN SECTION THE CAPPER FARM PRESS

QUALITY
RELIABILITY
SERVICE
—
NUMBER IX

A Chemist Turns to Farming

The Story of Ralph Arbogast, Master Farmer

By Burt Wermuth

THE subject of this article, Ralph Arbogast, gives credit for his success to "book" farming. Fifteen years ago he came to the farm at Union City after a long service of seventeen years as chemist in the private laboratories of Thomas Edison.

The first year on the farm he had opportunity to pay his respects to

up the quarters where the others had died, put the treated animals in these same pens. Certainly this was placing faith in science, but his faith was justified, for not a single pig died from the disease.

But this, Mr. Arbogast told the writ-

Mr. Arbogast being named one of Michigan's Master Farmers.

However, his modesty forbade him to mention this other fact, that it requires a high degree of intelligence, imagination, persistence, and faith to thoroughly understand the involved problems of agriculture, and to interpret the recommendations of the professors in the language of the soil and the stable. But this has been done in a most unusual manner on "Bostwick Farm."

The income on this farm is derived from several sources. The important sales are of cream and surplus dairy stock, of registered and grade Guernseys, eggs and poultry, hogs, pedi-

greed corn, oats and wheat, and cloverseed. The program is so planned that all the roughage and grain outside of that sold for seed is fed on the farm.

Early in his agricultural experience Mr. Arbogast absorbed the idea of keeping the land fertile. Business experience trained him to believe that greater profits can be realized in growing crops on rich land than on poor land. He, therefore, laid out a program designed to keep his land in the highest state of fertility.

Nitrogen is largely manufactured on the farm. Legumes play a big part in his rotation. Alfalfa is grown. In 1926 he had eighty-four acres of this crop. All of it is fed to the dairy cattle.

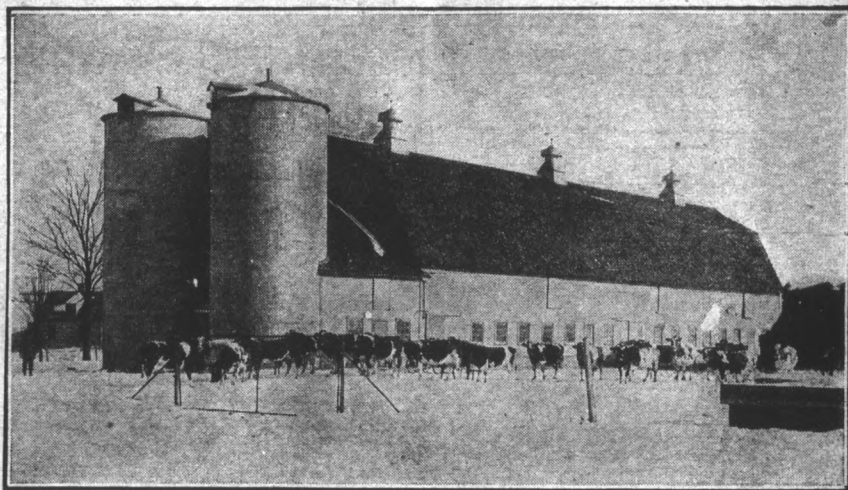
(Continued on page 282).



The Arbogast's Remodeled Home Contains Every Modern Convenience.

science. Hog cholera took all the hogs he had upon the premises. He made a trip to the Michigan State College to learn what was known about this disease. He got information from the college men, provided himself with the necessary material, came home and purchased forty more pigs, treated them as they were taken from the wagon, and after thoroughly cleaning

er, helped him more than saving his pigs from the horrors of hog cholera. It introduced him to scientific farming. Thereafter, he took his problems to the college to learn what experimenters had done toward their solution. As a result, the plans, conveniences, and methods employed upon this 600-acre farm are very much up-to-date, and in part were responsible, no doubt, for



Bostwick Farm Has One of Michigan's Fine Dairy Barns and Guernsey Herds.

Feeding and Poultry Diseases

Deficiency in Rations or Unclean Feeds Frequently Cause Troubles

By Dr. George Conn

POULTRY diseases of a digestive nature are much more common than one would suppose. The writer is fortunate enough to be employed by a number of the leading farm papers as veterinary editor, and the majority of inquiries are concerning poultry, and a large number of them have to do with errors in feeding. The feeding of poultry is not the simple problem that it once was. It is becoming more complicated each year, for poultry is being bred up for increased production and for more rapid growth. This changes the requirements of poultry. Another factor that must be taken into account is the ever-increasing number of milling by-products that are being employed for poultry feeding. If it was possible to feed poultry properly and to furnish completely the nutrients that they require for body maintenance and production, and then house the flock properly, we would have eliminated most of the causes of poultry diseases.

Errors in feeding poultry are numerous and will vary considerably. Some owners may over-feed their flock, while others will under-feed them. The mistake of under-feeding them is the one most often found. The feeding of

unsuitable material is another very serious mistake, and one that the experienced poultry keeper is not so likely to make as the beginner or the inexperienced one. Feeds that are too bulky, or contain too much fiber, should not be given to poultry, and yet there are many poultry owners who rarely give this a thought. The use of a feed that is not balanced—that is, a feed that furnishes too much of one single nutrient, and very little, if any, of the other nutrients that are needed. There is no single grain or plant that will make a complete feed for poultry. Thus it is impossible to employ any one of the common grains or seeds, such as corn, oats or wheat, as a sole source of a satisfactory feed for poultry. The ordinary farm does not supply all of the needed feeds for poultry, and regardless of how much feed that is produced thereon, the owner should realize that he will be compelled to purchase some supplements to his home-grown feeds, if he is to get the most good out of them, and likewise the most good from his flock.

The use of spoiled feed, when done

intentionally, is an indication of carelessness of the rankest kind. Spoiled feed should never be given to any animal nor to poultry. While poultry frequently do eat feeds that, for other kinds of domestic animals would be very dangerous, such feeds are often the cause of serious losses too with the poultry flock. Moldy or musty feed, decayed vegetables, spoiled meat, or anything of such nature, should never be given poultry. Poultry frequently have access to dead animals that have decomposed, with the result that losses are heavy. The writer has observed heavy losses in farm flocks from this cause. All dead animals, when it has been caused by disease, should be buried deeply in quicklime if it is available. If not, then it is best to burn them.

Regular feeding is also an important factor in successful poultry management, and should not be overlooked. It is bad enough that the feeds be of good quality. They must be given at the proper time, in the correct amounts, and in the right proportions and correct combinations. Regularity of feeding is very important, and no

experienced poultry owner fails to recognize this.

Crop Bound (Impaction of the Crop).

This condition is quite common in the flock that is fed on dry, fibrous feeds. It may also be caused by feeding spoiled feed over a long period of time.

The first thing noticed will be an enlargement of the crop which, upon examination, will be found filled with a hard mass of food. This large mass presses against the windpipe and suffocates the bird after a time. The bird should be held head downward, and an attempt made to massage the mass out through the gullet. If a small syringe is available and a small quantity of water is injected into the crop, this will help. If this is impossible, the only thing to do is to make a small incision through the skin and the crop at the top and then remove the contents. Take some linen thread and dip it in tincture of iodine and suture the opening. The walls of the crop should be sutured separately from the skin.

Limberneck (Ptomaine Poisoning).

This condition is caused by the eating of spoiled or decayed foods. It is most often caused by eating animals

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MICHIGAN SECTION THE CAPPER FARM PRESS



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 experienced doctor.
 FARM:—Answers to all kinds of farm ques-
 tions, by competent specialists.
 HOME:—Aid in the solution of all kinds of
 home problems.

VOLUME CLXVIII NUMBER NINE

DETROIT, FEB. 26, 1927

CURRENT COMMENT

Farm Property Tax High

A SPECIAL study of farm taxes in this state is being made by R. W. Newton, of the Department of Economics of Michigan State College. This study covers a period of seven years. The most favorable situation during the period existed in 1919 and the least favorable was from 1920-1923.

The taxes paid by Michigan farmers during this time averaged fifty-two per cent of the net rents on all of the farms investigated. The average gross rent per acre for these farms was \$4.88 per acre. But out of this the owner was obliged to pay depreciation, repairs, and other expenses, which left a net rent of \$2.79 before a tax averaging \$1.45 had been deducted.

A volume of detailed information has been gathered by the department in the study. All of which goes to show clearly that taxes upon farm lands in Michigan are much higher than the income from the land justifies.

It appears that one of three things is necessary: either these lands must be made to produce a larger revenue; or other property must be called upon to bear a larger portion of taxation; or the expenses of government should be reduced.

As to the first question, it must be said, in connection with all the discussion in Congress and elsewhere, that our farms are now producing in excess of demands. So, the larger income could not well come from increased production. To reduce the output of our farms would decrease the marketable surplus and this might even reduce the income by increasing the overhead. Anyhow, it would be impossible to control production without adequate organization of farmers.

Recourse would seem to lie, then, in either shifting some of the tax burden to some other property, or reducing the cost of government. Undoubtedly,

greater justice would result if taxes were levied on income rather than on property. No one seems to satisfactorily answer this statement in the negative. At least, our State Constitution ought to be amended to provide for levying an income tax.

As to the reduction of government expenses, the Indiana plan may be found effective. In that commonwealth the state tax commission can be called in to review a local tax levy, or bond issue, providing ten or more local taxpayers appeal to the commission for such review. After six years of experience with this plan, the people of Indiana generally feel that it has demonstrated its value in keeping down government costs. We believe that a careful study of this plan would be wise, in the light of the serious tax situation in the rural districts of our state.

The Value of Advertising

THOSE who are breeding stock for sale, either animals or poultry, know the value of advertising, for many have built up a fine business by the consistent use of space in a good farm medium.

But in a broader way, few of us realize what advertising has done for farming. We are aware of the great increase in the use of oranges and other citrus fruit, but we generally do not know that ten years of publicity on the part of organized orange growers has raised the consumption per capita from thirty-one oranges to sixty-five.

We used to buy raisins by the cluster, but now by the pound or package, either plain, seedless, seeded, chocolate-coated, or in most any way you want them. The advertising which had for its slogan, "Have you had your iron today?" is greatly responsible for making the raisin a common table article, and has made the raisin business a profitable one, when many thought the Volstead Act would destroy it.

The Hawaiian pineapple growers have changed the habits of the people regarding pineapples, by advertising. Fresh pineapples were the common way in which we could get them. Seven hundred thousand cases, annually, of the fresh were sold. Now only 26,000 are sold, while five million cases

of canned pineapples are consumed annually. This is an increase from 400,000 cases per annum ten years ago.

These are products rather foreign to our own agriculture. But the advertising of our own products is now being given consideration. The egg industry has organized to tell the public of the value of hen fruit. The leaf lettuce growers of Michigan and other states now have a story of the value of their product which they are to tell the consuming world, to counteract the increasing use of head lettuce. And the apple growers of the nation are organizing for the sole purpose of telling the public why apples are healthful, and of otherwise stimulating apple consumption. The consumption of milk has been greatly increased by a consistent campaign which informed the public of its value.

Advertising is becoming a potent force in our modern agriculture, as it is in our modern civilization. It is potent because it influences people's minds.

The Farm Movement

SOME people have a line of work at a definite place in which they probably expect to engage the greater share of their lives. But a great many folks are constantly changing. These changes usually come of necessity.

If it were not for this changing population, it would be difficult to get work done where there is temporary need of extra help. An industry booms—extra workers are needed. Even in agriculture, the harvest seasons in grain, fruit, and other sections, make extra help necessary.

The rural communities are usually the sources of this extra help. When wages are alluring, the hired man and the farm tenant leaves, and if the condition lasts long enough, even owners leave their farms for city jobs. This condition has prevailed during the last few years. But now we can see a reversal of the movement.

A report of the National Association of Real Estate Boards shows that the demand for farm lands is increasing and that in some sections a definite back-to-the-farm movement is starting. "Rooms to Rent" signs in the rooming house sections of the cities show

that labor conditions there are not as good as they have been. Our own advertising columns show that there are more men seeking farm jobs than heretofore.

All these signs seem to indicate that the great spurt industry has made during the past few years is slowing down and that a period of sound and sane adjustment is at hand. To live in the city without a constant income, is a condition which few can afford, while on the farm such a thing is more nearly possible. Somehow one can eke out a living on the farm when he cannot in the city.

So, when plenty of jobs are not available in the city, we see thousands go back to the old farm home. Is this not just another indication of the stability of agriculture?

Keeping Up

THE other day I went out and dusted off the old bus. She was standing there just like I left her three months ago. You see, we're using old Bess nowadays, 'cause she's got the best non-skid feet I ever saw, and she kin negotiate snow drifts, etc., lots better than the old bus.

But you know, the old bus looked kinda ancient. She's clean and nice, but she oughto go to a museum to show folks the kinda autos they used once upon a time.



I got her started, and say, she goes just like she's been feeding on monkey glands all winter. She was hitting on all

four, and sometimes it sounded like she was hitting on a fifth fer good measure. She's sure all there with the goods.

But the looks—that's the trouble. Her brass radiator, and the hood being so far down, while you're sitting on top o' the world when you're in her, that's what's funny. She was class once, but not now. I know the neighbors is talkin' already about Hy's Noah's Ark. Of course, I'm presuming they're talking about the machine, and not referring to what's in her when I'm driving.

I don't know what to do. She's there with the work yet, but she ain't there with the style. It's a problem to know if I should pay out good money for style so I kin make my neighbors envious, or to save the money and drive the old bus and let the neighbors have a lot of fun at my expense. It's up to me, I guess, to decide if paint and varnish and shape is more important than utility.

You know, when a fellow comes to think of it, he kin spend a lot for just keeping up. You feel like a king or a piker, depending on whether you are in style or not. Now, Sofie and the kids like riding in one of the latest models, but Sofie is conservative; she don't like to spend money just for style. But you know, the high school girls ain't as anxious to ride with me as they used to be. Maybe that's why Sofie ain't anxious to buy a new one. But I'd like to show them some class, so I guess I'll look around. Maybe I kin get enough for the old bus as a antique, to buy a new one. You kin never tell what the museums will pay for things like that.

HY SYCKLE.

Many individual farmers, and some of the farmers' organizations of the state, are taking active steps to inform themselves and their neighbors of the benefits which will accrue to the farmers of Michigan when the Great Lakes-St. Lawrence Deep Waterway is constructed.

A fine display of vegetables, grains, and apples was shown at the Community Fair and Festival held at the Byron school, in Livingston county.

Senator Horton Introduces Trespass Bill

A BILL drafted to meet the farm trespassing situation in Michigan, and published in these columns in the issue of February 12, was introduced into the Michigan Legislature by Senator Horton last week. This is the first step in an effort to secure for the farmers of Michigan a reasonable degree of protection against trespassing by irresponsible hunters and fishermen:

One of the very important provisions of this bill is section four, which gives to the owner, lessee, or person entitled to the possession of the land, authority to arrest without warrant, any person found violating the statute. The whole section reads as follows:

Section 4. It shall be lawful for any owner, lessee or person entitled to the possession of such lands, or his agent, to arrest without warrant any person found violating this statute and immediately take him before a justice of the peace for trial; and in so doing such owner, lessee or agent is hereby vested with all the powers and rights of a game warden, constable, and deputy sheriff, as to such matter; and it is hereby made the duty of all game wardens, constables and sheriffs, upon the request of such owner, lessee or agent, to see that the law is enforced.

This provision was taken from the West Virginia statute, where it has proven effective and meets the commendation of the law-abiding public. The difficulty with any farm trespassing law which depends upon the sheriff's office, or even upon constables for police service, is that the officers seldom are within reach when wanted. As a result, they usually arrive after the trespasser has disappeared into the next county or state.

The seat of governmental authority is now too far from the farmer. The aggravating experiences that farmers have been obliged to put up with from a certain type of would-be sportsmen, are largely the result of this very condition. Vesting the authority to make arrests in the owner or possessor of the land, seems to be the only means whereby this measure can be made effective. It is the purpose of section four to extend the authority of the law all the way to the farm.

We suggest that the reader go back to his February 12 issue of the Michigan Farmer, read the whole text of this bill, then write to the men who are representing his district in the State Legislature, a strong message on the whole proposition, laying special emphasis upon section four.

Planning the New Home

The Bungalow vs. Two Story Structure

By A. C. Page

THE two-story house is probably the cheapest arrangement for securing the required space for more than four rooms, since it requires the minimum amount of basement room and roof area, two of the most expensive parts of the building; while the wall area for the two-story type is only slightly greater, due to the lower ceilings of the upstairs rooms.

Two-Story Gives Better Light and Air.

The two-story home has better light and air than the bungalow. With more than four rooms on the ground floor, it becomes difficult to get outside windows on two sides of all the rooms, and to get free air circulation without the connecting doors open, which is not always convenient in the case of sleeping rooms in cold weather. With the two-story house, up to nine or ten rooms, there is little or no trouble in getting outside light on two sides and a cross breeze without an open door. The upstairs bedrooms get more than those downstairs because they are above more of the breeze obstructions.

The Heating Question.

Contrary to the general opinion, the two-story house is more easily heated than the bungalow. The heaviest heat losses in a home are first, through the ceilings, second through the windows, and third through the walls. In the bungalow there is practically twice as much exposed ceiling as with two stories, since any heat escaping through the lower ceilings is not wasted but goes to heat the upstairs rooms.

There should be but little difference in the amount of window area or in the heat lost through them; and with the use of building paper and insulation between the studding or against masonry walls, the slightly greater wall area of the two-story house will make hardly any appreciable difference in the heat lost through the walls.

Not only is there less heat loss in the two-story house, but almost any kind of a heating system will work more efficiently where the rooms are within close horizontal reach of the heating plant. Either hot air, hot water, or steam is hard to move any distance horizontally, but naturally moves upward.

With the bungalow type it is always a problem to get heat to the outer rooms, especially against the wind; but with the other it is a simple matter to heat the upstairs rooms, often with nothing more than a register in the floor using waste heat from the downstairs rooms. Another point making for better heating efficiency with

an upstairs is the greater chimney draft, as a thirty to thirty-five feet height is bound to work better than twelve to fifteen feet. Also considerable more radiated heat will be obtained where the chimney goes up through the middle of the upstairs, which is the proper location for a chimney.

Bungalow Saves Steps.

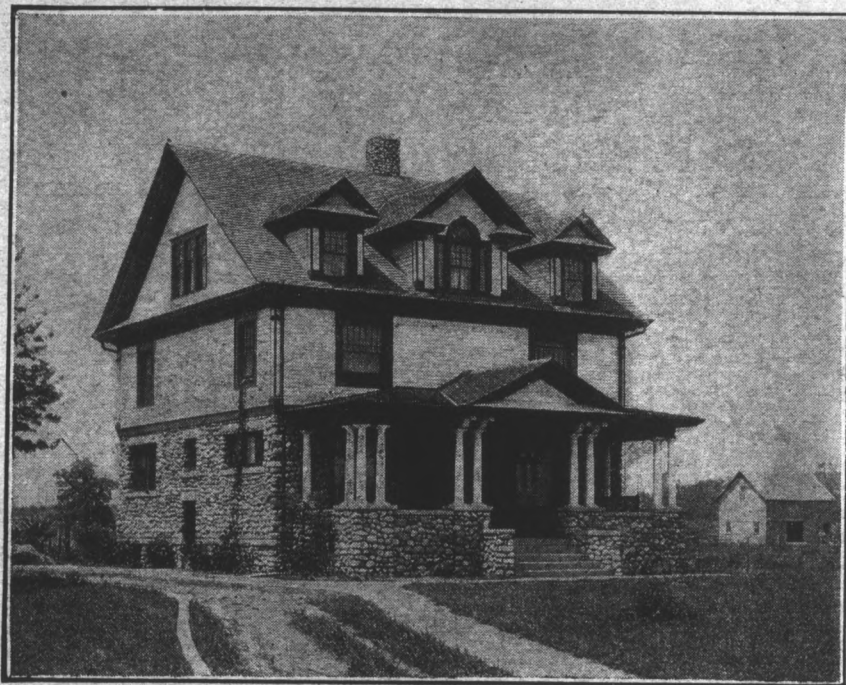
A point often made in favor of the bungalow type of home is that it is so much more convenient, having the bathroom and sleeping rooms all on the same floor, and that it saves the continual running up and down stairs, so tiring to many women. Undoubtedly it is more convenient to have all

the home operations on one floor, and this may in some cases be the deciding factor for choosing this type, especially where there are small children in the family. The importance of this is sometimes over estimated, especially if there is a toilet and lavatory downstairs, since few trips upstairs should be necessary.

The great point in favor of the bungalow home is its appearance. While the two-story home may be entirely appropriate for hilly and timbered sections, many artists and architects feel that a lower type with horizontal rather than vertical lines is more suitable for prairie homes, where most of the strong lines are horizontal. And it does seem that in many locations, the bungalow type has a better appearance than the two-story type. Just how important this is, each home builder must decide for himself, but the point is worthy of careful consideration.

Story-and-Half a Mistake.

The story and a half home is a compromise between the bungalow and the two-story type. It is often used instead of the two-story house from the standpoint of economy, but this is a mistake; since the saving is only in a small amount of outside wall and perhaps a small amount of ceiling in the upstairs rooms and this will be more than balanced in the cost of dormer windows required to secure air and light to the upstairs rooms. Also these upstairs rooms are likely to be uncomfortably hot in summer because of the lack of attic space above them. Sometimes the story and a half is preferred because of a better appearance, and this consideration may be all right under certain conditions. On the whole, however, the story and a half is not so satisfactory as either the bungalow or the two-story home, and should not be selected without careful consideration.



Room is Provided Cheapest in Two-story Farm House.

Has Faith in His Books

They Give an Accurate Story of the Year's Work

By V. O. Braun

MR. FARMER, what was your farm income for 1926? I asked this question of three of my farmer friends. Number one replied, "I made about \$1,000." Number two assured me that he made a good living and that was about all, while number three, a very good-natured fellow, laughed and remarked, "I made about \$200 less than nothing."

In spite of these remarks, I am of the opinion that all three of these farmers made a fair profit on their investment, for I am well acquainted with their farm practices and know the productivity of every square foot of their farms. The point is, and the one I wish to emphasize, that neither of them kept books or accounts of any kind and could not determine definitely whether he made three, five, or eight per cent on the amount invested. This, of course, is poor business methods, and I most sincerely hope that every farm reader of the Michigan Farmer will determine to keep a simple system of books in order that he may be able to determine next year just how much profit he made, and what per cent on his investment his money yielded him during 1927.

Every good business man keeps a set of books, and, of course, the farmer should not be an exception to this rule. If farmer number two would have kept books on his business, I am sure he would have given me a different answer.

I am selecting farmer number two for a few illustrations because he is as near the average farmer as I could choose. He informed me that he made a good living, and he based his judgment on the fact that he had about the same amount of money in the bank as he had a year ago, and also that his farm inventory was about the same. This data seems to indicate that his conclusions were correct, but upon closer observation, which could have been determined with a set of books kept on the farm, I found that he spent quite a sum of money from the farm income, which must be called farm profit. For instance, he had one boy in college, two girls in high school, had bought a new car, and paid out a \$500 hospital bill during the year 1926. The money from these expenditures alone would yield him a fairly good labor income and six per cent interest on his farm investments. Thus, this farmer who figured he was making only a living was, after all, making a good profit from farming.

I have found similar instances in discussing profits with different farmers. I was showing to a friend my own set of books on my 160-acre farm, and he pointed out to me that I did not make any money during 1926 because the cash on hand at the end of the year was no larger total than the cash on hand at the beginning of the

year. This was true, but I pointed out to him that the inventory for January 1, 1927, amounted to nearly \$1,200 more than the inventory for January 1, 1926, which would yield more than a six per cent dividend on the capital invested. Farm property should, like other property, if properly managed over an average number of years, yield a six per cent interest, or better, on the amount invested, and I am inclined to think a large part of the farmers who only believe they are making a living would find, if they kept books, that they were in reality making a good dividend from their farms. Of course, there are exceptions to this rule. Some farmers are not making money and some never will; the same is true with every other kind of business.

I believe nearly every farmer will agree with me that books should be kept on the farm, and I also believe that nine-tenths of them, including myself, do not like the job of keeping these books after a hard day's work in the field. Then there are probably quite a number who will assert they do not understand bookkeeping, and are not capable of keeping a set of farm books.

I believe I am capable of keeping a set of up-to-date farm books, as I have had a year of bookkeeping and a short course in accounting, and if any

one wishes to keep a complicated set of farm books, I will say amen to the idea, but I am not going to recommend such to the farmer, and I do not keep such a set. The system I am going to recommend, and the one I use, can be kept by any person with a sixth grade education, and will not take more than ten to fifteen hours per year of labor. By doing so, I believe I can appeal to the busy and untrained bookkeeper and farmer and get him to adopt business principles to his own business; at the same time I will admit to the man who keeps a better set that he is probably doing a better job with his regular printed guide outlines and forms.

As I started to write this article in my office I was interrupted by a telephone call from a farmer who wished me to send him a blank guide bookkeeping account book. He had kept such accounts in 1926, and when I explained my own method, which was not so difficult, he said he believed he would try my method for 1927, as it seemed very simple and took so small an amount of labor. I do not usually recommend this method to the farmer who keeps a better set, but I do recommend it most heartily to the farmer who keeps no set at all.

The capital outlay for this set of books will cost the sum of five cents, and consists of an ordinary composition book of ruled paper opening from the side. Open the volume and on

(Continued on page 279).

State Capitol News

By Our Lansing Correspondent

DESPITE the fact that the voters at the election last fall refused to increase the pay of members of the Legislature from \$800 to \$1,200 per two-year term, the lawmakers have decided that they are not going to hurry their deliberations in order to get home to attend to their personal affairs. Although nearly all members agree that the present salary is inadequate to pay campaign expenses and those incurred while attending the session, the members of the House finally voted down the proposed constitutional amendment offered by Representative Ate Dykstra, of Grand Rapids, which would have limited the regular biennial legislative sessions to ninety days.

In speaking of the bill, Representative Dykstra declared that our neighboring state of Indiana found that they could enact all the necessary legislation in a sixty-day session without any trouble. The resolution was opposed by Representative John M. Harris, of Boyne City, who declared that the measure of value of the Legislature is its efficiency and the quality of work done. He said, "Legislation is not a typewriting proposition that you can work out by the hour."

Other members opposing the resolution were Representatives John P. Espie, of Eagle; Wm. B. Hartzog, of Mason, and Fred R. Ming, of Cheboygan. Ming called attention to the fact that there is great danger in rushing through legislation, and pointed out that nearly sixty days of the present session were already gone and the real work was just being started.

Representative Charles H. Reed, of Clio, favored the resolution, declaring that all needful legislation could be, and would be, considered in sixty or ninety days. On final passage, the resolution received fifty-five affirmative and thirty-seven negative votes. However, as it involved a constitutional amendment a two-thirds majority, or sixty-seven votes, would have been required for its passage. Following its defeat, Representative Fred R. Ming, of Cheboygan, urged all members who had voted for the short session, to get to work and demonstrate what could be done in ninety days.

* * *

Real protection for Michigan farmers against the depredations of hunters, fishermen, trappers and campers would be provided by the passage of a bill sponsored by Senator Norman B. Horton, of Fruit Ridge. Senator Horton's bill is substantially the same as that proposed by The Michigan Farmer, and printed in full in our issue of February 12. This measure would require all hunters or other persons covered by its provisions, to secure the written permission of the owner or other person entitled to the possession of the property before entering any enclosed or improved land.

This bill is especially specific in its provisions regarding enforcement. It is made the duty of each prosecuting attorney to prosecute all persons charged with violating the provisions of the bill and otherwise to see that it is enforced. Then, too, section four of the measure would make it lawful for any owner, lessee or person entitled to the possession of such land, to arrest without warrant, any person found violating this statute, and immediately to take the offender before a justice of the peace for trial. For this purpose such owner or his agent is vested with all the powers and rights of a game warden, constable, and deputy sheriff.

Violation of this statute would be made a misdemeanor punishable by a fine of not less than \$10 nor more than \$50, and the offender may be committed to the county jail until such fine and costs are paid, not exceeding thirty days. For a subsequent conviction

the penalty would involve not less than three nor more than thirty days in jail in addition to the fine imposed.

* * *

The first purely agricultural legislation to be passed by either branch of the Legislature slipped through the House of Representatives with the perilously narrow margin of only one vote to spare. This was the bill designed to control or discourage chicken thieves by requiring all buyers of poultry to record certain facts about each lot of poultry purchased, and to keep this information on file available for sheriffs and other peace officers. This bill was fathered by Representative Luther E. Hall, of Ionia. It is now being considered by the Senate committee on agriculture.

Representative Otis Huff, of Marcellus, has introduced a second bill to make it unpleasant for chicken thieves.



WANT STATE COOPERATION.

A RESOLUTION has been introduced in the House by Representative Madden, chairman of the House committee on appropriations, proposing that no part of the appropriation of \$10,000,000, authorized in the act approved February 9, 1927, for eradication of the European corn borer, shall be expended until all the states in the proposed control area shall have provided necessary regulatory laws.

PRESIDENT HAS MILK BILL.

THE Taber-Lenroot bill, designed to prohibit the importation of impure milk and cream from Canada, and to protect the dairy industry of the United States, has passed Congress and been sent to the White House. It requires Canadian producers and ship-

This bill would provide stiff penalties for the larceny of the feathered live stock. For stealing poultry of not to exceed \$25 in value, the penalty would be confinement in state prison not less than two years nor more than five years.

* * *

An appropriation of \$100,000 for each of the next two years for the Michigan State Fair at Detroit is proposed by Senator Chester M. Howell, of Saginaw. This would be divided into \$35,000 for maintenance and operation, and \$65,000 for premiums. For the past few years the annual state-aid has been \$75,000, but Senator Howell proposes the increase in view of the fact that it is reported that the State Fair hereafter will either be a free fair or will charge a very low admission.

One hundred thousand dollars of state-aid for county fairs to assist them in the payment of premiums is provided in a bill introduced in the House of Representatives by Representative Wilber B. Snow, of Comstock.

pers of milk and cream for the American markets to submit to the same sanitary regulations and inspections as are required of milk producers on this side of the line. Upwards of 7,000,000 gallons of milk and 5,500,000 gallons of cream, forty-three per cent butterfat, or 11,000,000 gallons of coffee cream comes into the United States annually from Canada. A good deal of milk and cream now received from Canada is not up to the dominion government requirements. This country is being used as the dumping ground for milk produced under conditions that are below the requirements of Canadian cities.

McNARY-HAUGEN BILL ADVANCES.

THE closing debates on the McNary-Haugen bill in both House and Senate drew large gallery crowds,

indicating that city people as well as farmers are becoming interested in the subject. Recent propaganda in the daily papers has had the effect of inciting strong opposition of consumers' organizations to the bill.

It has been generally understood that the Coolidge administration is opposed to the McNary-Haugen bill, although it would be difficult to quote anything the President has said directly against it. The attack made by Secretary of Labor Davis on the bill, and later the statement issued by Secretary Mellon, however, are taken to indicate that President Coolidge is preparing to veto the measure. There is little expectation in Washington that it will become a law. In this case the fight for farm relief will be carried over into the next Congress.

News of the Week

Norval Hawkins, former sales manager for the Ford Motor Company, predicts the merger of many of the smaller auto companies and that a price war will be on.

The General Motors Corporation made the biggest profits in 1926 ever made by a motor organization. The profits were \$187,000,000.

The troops of Marshal Sun, defender of Shanghai, have been pushed back by the onrushing Cantonese army in China.

The Chinese have appealed to the League of Nations, demanding the withdrawal of the British order to send troops to China.

At Long Beach, California, between 2,000 and 2,500 people were rendered homeless by a severe rain and wind storm. It is one of the worst storms to visit the Pacific Coast in history. Twenty-four people from various parts of California have been reported dead. Avalanches on mountains also caused damage.

Louis Weintz, eighty-two years old, the last of Abraham Lincoln's bodyguard, died at Middletown, New York, last week.

A division of airplanes and a company of marines have been ordered to Nicaragua by the navy department. They are on hand for emergency purposes while the civil war is raging in that country.

For the theft of twenty-three chickens, valued at \$45, a man and a woman in Pontiac were sentenced to prison for two to fifteen years.

The Butler University, at Indianapolis, entered a new student recently in the person of Phillip A. Randall, seventy-three years old, and bearded. He wants to qualify as a teacher.

Automobile insurance rates have been raised by the members of the Western Automobile Underwriters' Association, because of the heavy losses through theft.

France has refused our proposal to further limit naval armaments. Great Britain and Japan still have it under consideration.

After a life time of research, Prof. Henry Steenbock, of Wisconsin, has found a means of impregnating food with an essential element by the use of violet rays. He has had the process patented and has given it to the University of Wisconsin to prevent its commercial exploitation.

Dr. Louis I. Harris said, at a banquet of the National Farm Schools in New York, that the city had food enough to last only three days if shut off from an incoming supply.

The British have broken negotiations with the Cantonese Chinese government and have landed troops at Shanghai.

The New York Central Railroad has just made a giant engine which will haul twenty passenger coaches ninety miles an hour.

The rebels in Mexico are active in four states. The Mexican Yaqui Indians are on the war path.

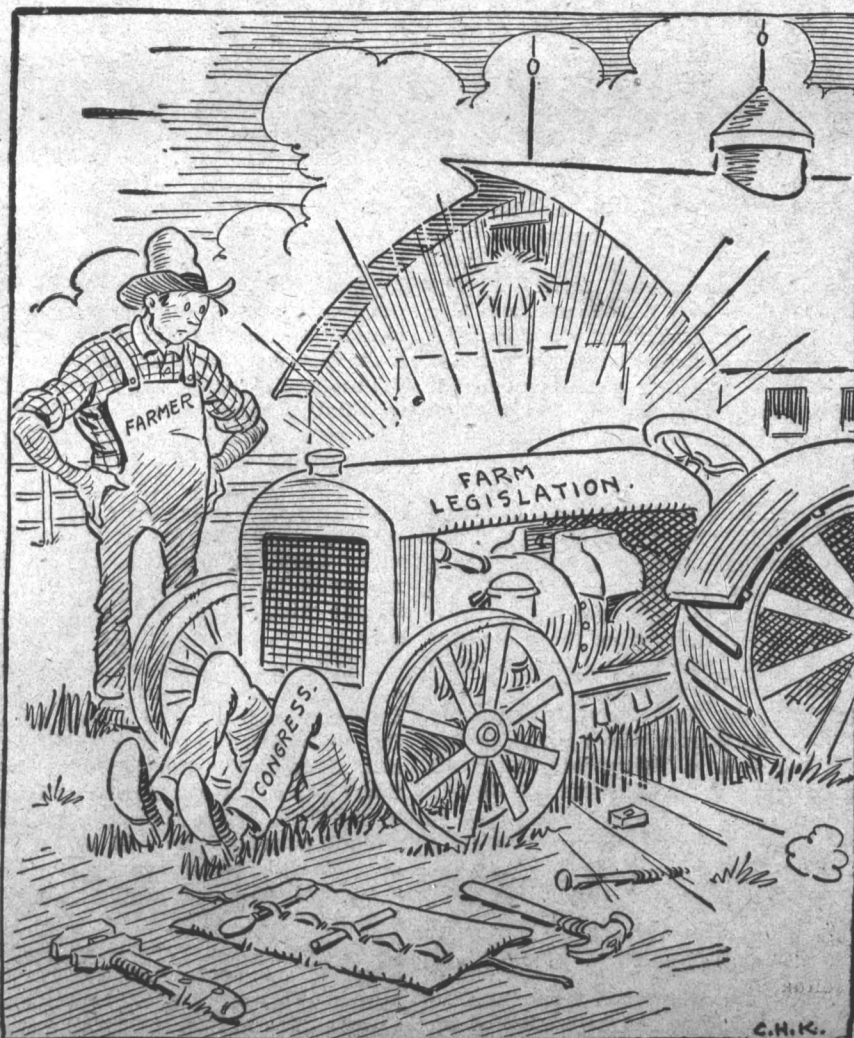
Prof. Howard Lord, of the history department of Harvard University, has resigned to become a priest.

Josephine Williams, known as "Jolly Josephine," a side show fat lady, weighing 550 pounds, married a man in California weighing one-fourth as much.

A secret investigation by a foreign power reveals that there are twenty plants in Russia making war gas, three-fourths of which are being added to reserves which the Soviet government has been hoarding during the past three years.

Elihu Root, former secretary of state, and former senator, was eighty-two years old on February 15.

The Hired Man Has Gone to Work at Last



Tops the List

Master Farmer Given First Place

By L. D. Kurtz

A MASTER FARMER has proved worthy of his title. Last fall, Paul Clement, of Britton, Michigan, was selected by the Michigan Farmer as one of eleven charter members of its honorary Master Farmers' Club. On February 3, the Michigan Crop Improvement Association announced Mr. Clement as winner of the Michigan Five Acre Corn Contest for 1926.

One of the outstanding corn growers of the state, and named on Michigan's exclusive 100 bushel honor roll, which lists but three growers, Mr. Clement has been trying for four years to top the Michigan contest. Each year his yield per acre has been one of the highest, his cultural cost of production per bushel one of the lowest. Last year, his yield was 100 bushels per acre, but Willard Hilton, of Coldwater, grew 105 and Ernest Gilbert, of Waldron, 112 bushels per acre, and received the gold medal of the Michigan Crop Improvement Association for this achievement.

Clement's winning yield in the most recent contest, was ninety bushels per acre, just one bushel ahead of his old rival, Ernest Gilbert. It must be remembered that this is ninety fifty-six-pound bushels per acre of shelled corn at fourteen per cent moisture, in no way to be confused with the basket measurement of ear corn, with which many farmers gauge their corn yield. Figured at seventy-three cents per bushel, it made Clement's crop worth \$65.70 an acre, from which must be deducted \$9.77 an acre representing actual cultural costs, besides interest, taxes, overhead, harvesting and marketing costs to determine his actual net profit.

Because of the difficulty of arriving at the overhead, harvesting and marketing costs, these are not made a part of the Michigan contest, but the cultural costs, such as labor, fertilizer, seed and so on, are kept by each contestant, and Mr. Clement, the winner, the market value of whose crop showed the greatest margin above cost of these cultural operations, was awarded the first prize of two tons of fertilizer by the Michigan Farm Bureau Seed Service, on this basis.

George Bruce, of Britton, who finished second with a yield of eighty-one bushels per acre, at a cultural cost of \$8.15 an acre, received eighty steel fence posts, while Ernest Gilbert, of Waldron, who finished third on this basis, and Otto Wegner, of Riga, who finished fourth, each received one-half bushel of Certified Grimm Alfalfa seed from the Michigan Farm Bureau Seed Service.

Silver medals for yields above eighty-five bushels per acre were awarded by the Michigan Crop Improvement Association to Paul Clement and Ernest Gilbert, while bronze medals for yields above seventy-five bushels per acre, were given to George Bruce, with eighty-one bushels per acre, Otto Wegner with eighty-four bushels per acre, and Fritz Mantey, of Fairgrove, with seventy-five bushels per acre.

Alfalfa played an important part in bringing out the winners, Clement, Bruce and Gilbert all growing their corn on land which had been into alfalfa the previous season. On this land, Clement used 100 pounds of twenty per cent acid phosphate, and 100 pounds of 0-20-20 fertilizer per acre. Ernest Gilbert, with the second high yield, also used fertilizer, his application consisting of 270 pounds of twenty per cent acid phosphate per acre, while Otto Wegner used 105 pounds per acre of forty-four per cent phosphate.

Several varieties or strains of corn proved their merit in the 1926 contest.

Paul Clement used seed of his own breeding, known as Clement's White Cap, as did Otto Wegner, of Riga, and Ford Lownsbury, of Britton. The latter grew sixty-four bushels per acre.

Ernest Gilbert's corn was also of his own selection, a yellow dent variety. Duncan corn yielded seventy bushels per acre for A. J. Lutz, of Saline; sixty-five for Fred Shilling, of Coldwater, and sixty-four for Harry Kelley, of Prattville. Duncan corn proved well suited to the southern counties. Fred Shilling entered adjoining fields of Duncan and Pickett corn on his farm near Coldwater, giving each the same treatment, and the Duncan yielded eight bushels per acre more than the Pickett.

The earliness of Pickett corn, however, made it the better variety for growers farther north. Fritz Mantey, of Fairgrove, with this variety, is the first of the Thumb District growers to make the medal class of seventy-five bushels per acre. Ferden's Yellow Dent, grown by Ferden Brothers, of Chesaning, also showed to advantage among the earlier strains of corn, yielding sixty-one bushels per acre. Last year, these growers made the bronze medal class, their corn yielding seventy-seven bushels per acre.

Farley Brothers, of Albion, grew the new Polar Dent Corn bred by the Michigan State College, in the hope of securing frost resistance. Their yield was seventy-three bushels per acre. This strain of corn has withstood some rather heavy early spring frosts and may prove a valuable strain for early planting, provided its added value, due to the possibility of early planting, is not offset by the danger of the corn borer which seems to prefer the early planted corn.

That cultural methods which insure high yields are profitable, is the big lesson taught by the 1926 corn contest, as well as those in previous seasons. In general, the contestants finished in about the same order on the basis of yield per acre as they did on the basis of margin of value above cultural costs. The one exception was the case of Fritz Mantey, of Fairgrove, who put in a lot of time hoeing the crop and ran his labor costs unusually high.

DISK VS. MOLDBOARD PLOWS.

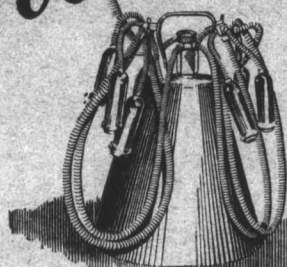
What is the advantage of a disk plow in rather stony soil? How does the disk plow compare in draft with other plows? Why is it that the disk plow is not used more?—N. N.

The disk plow substitutes rolling friction for the sliding friction of the moldboard, landside, and share, and the draft is in general somewhat less than that for the standard plow. Tests at Ohio State University indicating that the disk plow pulled about ten per cent lighter. The disk plow gives less trouble in tough, sticky gumbo soil, where moldboard plows would fail to scour, and be hard to penetrate. It is also used in hard-packed or stony soil that could hardly be plowed at all with the ordinary plow. Extra weight piled on the frame adds but little to the draft, but is all used in securing better penetration when needed, but better than with the usual type.

It has the rather serious disadvantages of not making so smooth a job of plowing, of less pulverizing effect, and of failing to cover trash well. This last is probably the chief reason it is not used more.—D.

A car consumes more gasoline going down hill when the clutch is engaged than when it is released, because the car coasting will turn the motor over faster than if the clutch is disengaged and the motor slowly idling.

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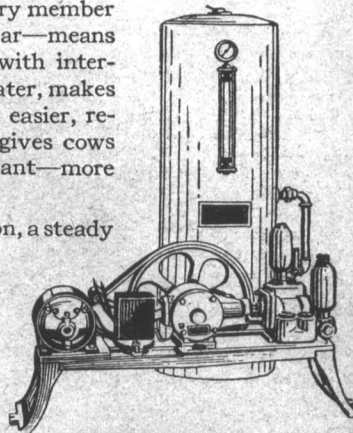
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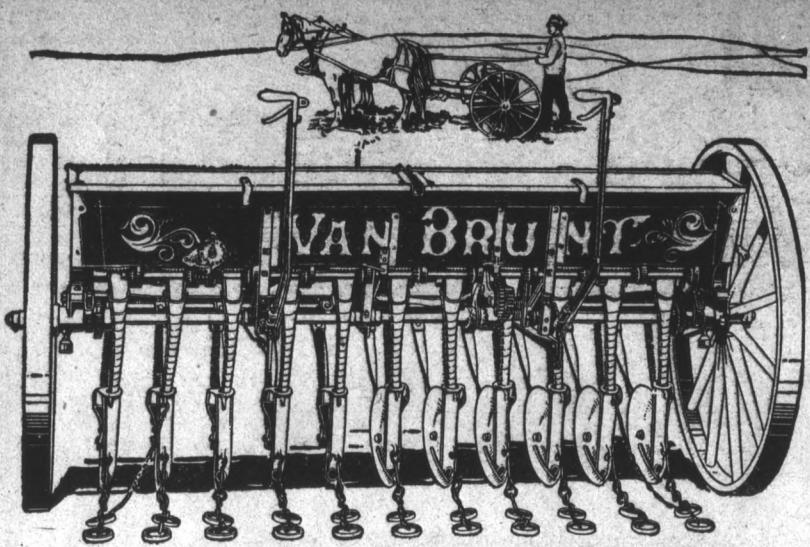
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COTTER PIN TOOL.

A HANDY cotter pin tool may be made from a piece of three-eighth-inch round cold rolled steel. This piece should be about nine inches long and tapered at the end. The tapered end is bent into the form of a button-hook for pulling the cotter pins, and the other end is upset to form a light hammer for driving the pins into position when this is necessary.

REMOVING THE ENGINE OR BODY.

AS the private garage is not equipped with a hoist, when a heavy part, such as the motor or body, must be removed, it presents a problem. However, here is a method which will answer quite as well as a hoist in the average case. The car is first jacked as high from the floor as possible. The part is then fastened by ropes to the roof beam joists. Now lower the car to the floor, and if the radiator has been removed the chassis can be rolled from under the part.

BUILDING THE CHIMNEY.

AT this time of year when so many readers are planning the construction or remodeling of farm homes, a safe and proper construction of the chimney is of the utmost importance, if the installation is to be fire-safe and the heating equipment is to operate satisfactorily. So far as I am aware, no insurance firm has as yet offered a rebate for a flue lining in the chimney, but it probably soon will be done, just as it is now for lightning rods, fire-resistant roofs, and so on. The following chimney specifications, formulated by Howard R. Linn, a prominent heating expert, are offered for the guidance of our readers:

The walls of the chimney shall be of brick and shall be lined with fire clay flue lining. The joints of the flue lining shall be made air-tight. The clean-out space at the bottom of the chimney shall be air-tight when the clean-out door is closed. Flue lining shall start at least four inches below the bottom of the smokepipe in-take, and shall be continuous the entire height of the flue and project at least four inches above the chimney top to allow for a two-inch projection of the lining. The wash shall be formed of a rich cement mortar.

Chimneys shall not rest upon, or be carried by, wooden floors, beams or brackets, nor be hung from wooden rafters, but shall be built upon concrete or masonry foundations properly designed to carry the weight imposed without danger of settling or cracking.

Flues shall be not less than ten by ten inches, built vertical, without offsets, and full size from the smokepipe inlet to the top of the chimney.

The top of the chimney shall be at least three feet higher than the highest point of the building, and in no case shall it be less than thirty feet above the boiler or furnace grates.

There shall be but one connection to the flue, to which the boiler or furnace smokepipe is connected. The boiler or furnace smokepipe shall be thoroughly grouted into the chimney and shall not project beyond the inner surface of the flue lining.

The chimney flue to which the heating boiler is connected shall be sub-

jected to a smoke test by the mason contractor in the presence of the architect or his representative, after the mortar has thoroughly hardened, and must be "smoke tight."

The method of conducting this test shall be as follows: With a good fire in the boiler or furnace, or in the base of the chimney, put about a square yard of tar paper on the fire. As soon as smoke appears at the top of the chimney close the top of the flue with a piece of old carpet or wet newspapers held down by a weighted board. Keep the tar paper burning in the firepot for five minutes. The architect or his representative shall sign an acceptance in triplicate, stating that the chimney was tight under the above test, and shall give one copy to the mason contractor, one copy to the heating contractor and one copy to the owner.

I wonder how many of our present farm home chimneys conform to these specifications. Very few, I fear, and only a small proportion of them would be passed by a fire inspector as reasonably safe against fire. For those who want further details in regard to chimney construction, flashing, and so on, I would refer to Farmers' Bulletin No. 1230, "Chimneys and Fireplaces," which may be secured free on request from the United States Department of Agriculture, Washington, D. C.

HEIGHT AND DIRECTION OF AERIAL.

I have an aerial that is only twenty feet high at one end and twenty-five at the other, and which extends southwest from the house. I get south as far as Florida and west to California, but have trouble in getting New York and Canadian stations. Can you tell me what the trouble is and what I can do to remedy it?—J. B.

I do not believe that in your case the direction of your aerial has anything to do with your trouble, but it seems more likely that these New York stations are being shielded off because of the house or barn or a group of trees. I believe that if you could put your aerial up fifteen or twenty feet higher, it would do away with the trouble you are having.—I. D.

MAKING HOLE IN CONCRETE TANK.

Please tell me the most practical way to cut a hole through a twelve-inch cement tank so as to put a hog waterer on it.—W. E.

You do not state the size of hole required, but I presume it is to be large enough to put in a three-quarter-inch pipe. The only practical way I know of doing this out on the farm is to get a sharp rock drill of a size a little larger than the hole absolutely required, and then go after it just as though you were drilling a hole in a rock for blasting. The quickest way is for one man to hold the drill while another strikes it with a heavy hammer or sledge. The drill should be turned about an eighth of a turn between blows. It is quite a job, but will go faster than one imagines. If air pressure were available, it would not take long to put the hole through with a pneumatic drill.

A LEAKY TUBE.

EVEN a slow leak in the inner tube will injure the casing. Within a few miles, under-inflation will rob a tire of many miles of service. Leaky tubes come from many causes. It may be that the valve plunger is worn or sticks, the lock-nut at the base of the valve stem may work loose, or running flat may honeycomb the inside of the tube with tiny holes through which air constantly seeps.

HAS FAITH IN HIS BOOKS.

(Continued from page 275).

page one make the farm inventory for a certain date. A farm inventory is a detailed list of all of the farm property with assigned values, and consists of land, buildings, live stock, tools, feed, and cash on hand. The inventory is an important part, as it shows the amount of capital invested in the farm enterprise, and also the different amounts invested in each division, as live stock, buildings, etc.

The next page, which is a double page, is set aside for the first month's accounts. On the left side of the page list the farm receipts for that month, with their respective values, such as butter, eggs, grain, hogs, or any other produce sold from the farm. On the opposite page list the farm expenditures, such as tools, hired help, feed, lumber, nails, etc. Items paid for in cash for the support of the farm can only properly be classed as farm expenditures. Clothing, automobiles, movie money, etc., should not be put in this list as it is not part of the farm expense. At the end of each month, these two sheets should be balanced and the profit or loss found for the month. The same is done for each of the twelve months and at the end of the year another inventory is taken and the books for the year are completed. Thus this system consists of about fifteen pages in a five cent notebook, and a total of about ten to fifteen hours of labor.

Now to find the farm income: Add up the profits for each month, which shows a profit, and subtract the losses, if any occur during each month. If there is an increase in the inventory at the end of the year, the increase is considered a profit and added to the monthly profits to make the total farm income. If there is a decrease in the inventory at the end of the year, the decrease is considered a loss and is subtracted from the total monthly profits to make the total farm income.

We have now the total farm income or the difference between the receipts and expenses. This amount is the return for the use of the capital invested, and the unpaid labor of the farmer.

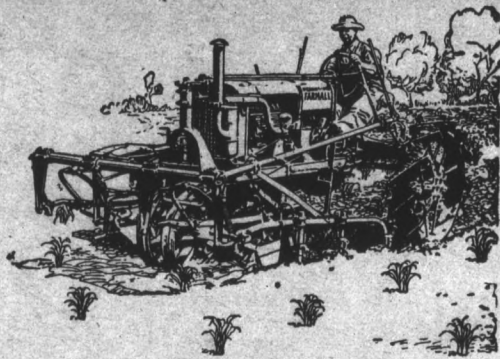
The unpaid labor of the farmer should not be figured too high, as in our system of books we have given him and his family their board and lodging. When this amount is subtracted, wherever the farmer considers its value, from the total farm income, the remainder is the interest on the capital invested, and should yield six per cent or better.

I feel that this simple method has given me a quite accurate report on my farm for 1925 and 1926. It does not, however, show, as a more complicated system would, whether the majority of the income, or a greater dividend, came from the cows, hens, cash crops, or where, but I feel that the farmer's daily contact with the different farm enterprises tells him, to a large degree, which enterprise pays him most. On my own farm I belong to the cow testing association, and the reports show the dividends on the cows. I also have a demonstration farm for poultry, and my reports show the dividend on the poultry. Every farmer can join the cow testing association, and a check can be kept on the poultry receipts if desired.

Other defects may be pointed out in this plan, but on account of its simplicity I hope that a large number of fellow farmers will adopt it during 1927, and carry on farming in a more business-like method.

HARVEST BIG CROP OF ALFALFA

SCHMALZRIED BROTHERS, of Levering, Michigan, recently finished threshing 120 bushels of Grimm alfalfa seed. This is one of the largest harvests of Grimm alfalfa seed on one farm that we have learned about. We would like to hear from other producers of this seed.



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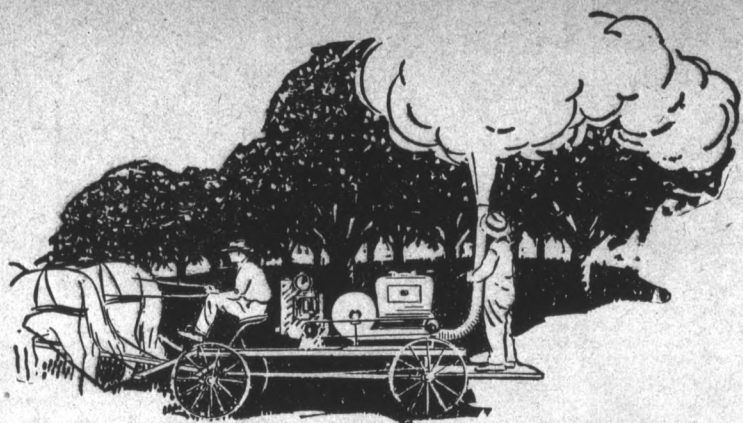
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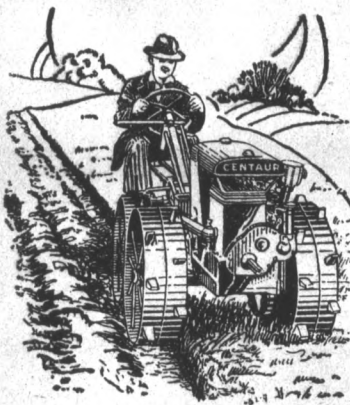
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heavy harrow, seeder and other field implements. And it is just right for belt jobs. In brief, the CENTAUR is the tractor that you have always looked for—a small size, full-powered unit that will handle your farm work easily and economically.

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Send CENTAUR Catalog and details of easy payment plan.

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Some Thrilling Experiences

By Winners of Contest

THE writers of the following experiences won the prizes in our recent Thrilling Experience Contest. The prizes of five dollars, three dollars and two dollars were won by those whose "experiences" appear in the same order.—The Contest Man.

Caught on the Trestle.

Some few years ago my husband said to me one evening, "Mae, let us, you and I and the kiddies, take a hike over to see my cousin."

"All right," I said. I got the two children ready and we started out. Our way lay over along railroad trestle. I never did like crossing it, but my husband said, "No danger of a train now, as they only make a trip twice a week, that is, go down Monday morning and try to get back by Saturday."

Well, I did not think much of the joke, and I was on the anxious seat the nearer we got to the trestle. We

watch longer the ice rushing and crashing by. So I started back alone.

When I reached the low land, it was covered with water, and the swamp was a raging mass of water three feet deep. I was frightened, and called to my sister to come at once, but she only motioned for me to go on.

When I had climbed to the top of the hill, I met three neighbors who, also, had come to see the ice go out. They had seen Cora and me on the elbow and hastened to meet me when they saw me coming alone. They shouted, "Hurry and get your horse, and come back and get your sister."

"Oh, let her come back the same as I did," was my reply.

"No, no, don't wait for her to come. Hasten or she will drown."

I looked at the man and laughed, for I thought he was joking. He saw that I did not believe him, and grabbed my shoulders, turned me around, and said, "Look at the ice piled ten feet high along the bank. Any minute, it may give way and overflow the flat. Then your sister will drown."

I looked at the icy wall, and sure enough, it looked as if every wave would carry it over. So I turned and ran home as fast as I could go. When I reached the house, grabbed my bridle from behind the kitchen door and shouted, "Ma, where is Dolly?"

"She's in the field," answered mother, "But don't ride her today. She had a hard jaunt yesterday." Hardly waiting to hear what she said, I bolted for the corn crib, snatched an ear of corn and ran for the field, calling, "Dol-ly." The colt heard me and with an answering whinney came on the run. As Dolly grabbed the corn I slipped the bridle over her head, jumped on her back, and off we were for the river.

Down the steep bank I urged my faithful animal. Her eyes were wild with terror and she snorted with fear, but she never faltered. Into the swirling, dirty yellow water we went. Small ice-cakes went whirling past us, and when we reached the swamp the water was so deep the little mare had to swim.

Cora was standing on one of the highest stumps with the water raging around her. Quickly I rode to her and told her to jump on the horse. But the water kept getting deeper and the colt kept circling around the stump, as it was very poor footing for her there. At last, by making a quick jump, my sister landed behind me on Dolly's back.

I then turned the colt's head toward dry land and safety. The colts on the shore, whinneying loudly, could scarcely be heard above the roar. But Dolly heard them and gave an answering neigh.

Then crash, down went the wall of ice, and over the flat poured ice and water. Some of the cakes of ice were ten feet across. Checking Dolly, I made her wait a few minutes on the higher land while some of the largest cakes went swirling swiftly by before we entered the swift current across the swamp.

The horse did bravely. She watched the coming cakes and dodged all but the small ones. Proudly she swam, with her head well above the water. When we reached the hill, she climbed it on the jump. Then, throwing her head in the air, she quickly tossed it down again, and up went her heels. Cora and I would have been thrown off, but we were expecting Dolly's kick-up, as it was a customary trick of hers. Then, swinging her proud head from side to side, and letting out a snort at every jump, she carried us quickly to the house.

The neighbors said the water was ten feet deep in the swamp when we passed over it.—Lavinia Heminger.

(Continued on page 284).

were getting along fine until all of a sudden, we heard the noise of a train. My husband and boy made the end of the trestle in good time, but the little girl was more timid and did not respond to my urging. I was going along as fast as possible, when all of a sudden she refused to go a step farther, and then we could see the light of the engine. I had to retrace my steps to where she refused to move.

By the end of the trestle, the train was upon us, and all I could do was to give her a shove and roll down the bank myself, not a moment too soon, for the train just brushed me as it passed.

I could not move or go on with our journey for over an hour, and then it was with all the strength I could muster. I never want to come so near death again, or I would never live through the shock of it. Perhaps someone has gone through a worse experience than this, but a person could not be nearer death than we were and not die.—Mrs. H. L. Ballard.

When the Ice Went Out.

One morning early in March, my sister Cora and I were awakened by a loud booming and crashing, which we knew at once was caused by the huge ice-cakes bumping each other as they crowded down the raging Pine River, (Michigan). We both hastened down to watch it.

When we got to the river, Cora said, "Let's go across the swamp and on the higher land beyond and watch the ice go around the elbow."

"All right," I answered.

When we reached the swamp the water was a foot deep. So we crept along on top of the rail fence across the swamp, until we reached the higher land beyond.

After watching the ice for perhaps an hour, I grew tired and cold, and suggested that we return home. But my sister refused. She wished to

STUDY CORN BORER CONTROL.

M. R. W. KIDDER, county agricultural agent of Monroe county, makes the following report of the campaign undertaken in that county for the control of the corn borer: "A county committee was organized, composed of nineteen farmers and the county agent for the purpose of carrying out a rigorous educational campaign throughout the county. It was decided to hold a county meeting first, and to follow it with meetings in the local communities. A canvas of one section in each township made by the township committeeman was made as a basis for an estimate of the number of acres devoted to corn in Monroe county. This survey showed that about 70,000 acres of corn are grown in the county, and that 13,000 acres of the crop was standing in shocks in the fields on February 1, and 50,000 acres of stubble were still undisturbed.

FORESTRY STARTS IN VAN BUREN.

ONE hundred thousand white pine and spruce trees will be planted in Van Buren county this spring. The chamber of commerce of South Haven is ordering 35,000 white pine seedlings which will be distributed free for planting. Two boys' clubs will plant 10,000 of this allotment.

DWARF SWEET CLOVER IN MICHIGAN.

PREVIOUS to 1923, common sweet clover was grown in large quantities in the section of Michigan known as the "Thumb," as well as the greater part of Michigan, with success, but no dwarf sweet clover had been grown in any large quantity in this section until 1923.

The seed was shipped from California. This seed (two bushels) was sown on two different kinds of soil; one a clay loam and the other a sandy loam with grain, as any other clover seed is sown. The seed is a biennial and the first crop was harvested in the summer of 1924. About one hundred and fifty bushels were grown that season. This was sold to the farmers of the "Thumb," mostly in Huron county, by the growers and sown in the spring of 1925 and harvested in 1926.

This clover grows about three and one-half feet high, and is fine and thick, making excellent hay and pasture, being finer and sweeter than the common sweet clover. It is also good to plow under for fertilizers. The seed matures during the early part of August and yields well. It is finer than the common sweet clover seed, and about ten pounds is sufficient to sow an acre. Because of the time it was harvested, there was little difficulty due to the weather conditions, as was experienced with other clovers last season. This clover winters well in spite of adverse climatic conditions.—W. F. C.

LOCAL LEADER METHOD IS EFFICIENT.

MANY of the extension activities of Michigan State College are being placed before the people of the state by what is known as the local leader training method. In this plan, a specialist from the college meets a group of people who agree to attend the training meetings and then to carry the knowledge which they obtain back to their home community and make it available to their neighbors. This is done by having neighborhood meetings, at which the lesson learned at the local leader's school is discussed and demonstrations given of the work done at those meetings.

The report of Marion R. Hoffman of work done in Saginaw and Kent counties shows that many people may be reached in a short time by the local leader method. Mrs. Hoffman is a spe-

cialist in home furnishing and gives four lessons in each of several counties of the state.

Mrs. Hoffman says, "A summary of the work shows that fifty-four leaders were enrolled in this project in the two counties. Fifty-three of the leaders were present at the meeting. Following the training meeting, the local leaders held twenty-eight local meetings at which 298 women had the work explained to them."

FARMERS LEARN BOOKKEEPING.

FOUR farm accounting schools have been held in the high school building at Mecosta this winter. E. E. Twing, county agricultural agent, finds that the farmers are showing much interest in keeping exact accounts of the costs of producing certain crops.

FARMER WOMEN PLAN PROGRAM OF WORK.

MEMBERS of the county committee on women's work in Kent county, are Mrs. Leon Dennison, of Caledonia; Miss Mary Hennessey, of Lowell; Mrs. F. L. Proctor, of Walker; Mrs. S. J. Cowan, of Rockford, and Mrs. W. S. Fowle, of Rockford. This committee is assisted by the county home demonstration agent, Miss Agnes Sorenson, in deciding what home economics extension work shall be carried on in the county.

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THIS Planet Jr. 220 Fertilizer Distributor is the last word for side-dressing crops in the row—the recognized way to rush maturity, produce prime quality, and get top prices. Equally valuable in narrow or wide rows. Spreads from 4 to 30 inches through six distributor spouts, all or any of which may be shut off, independent of the rest. Hopper capacity one bushel, well-balanced for easy pushing. Sows from 100 to 2000 pounds per acre of lime, commercial fertilizer, screened ashes, etc.

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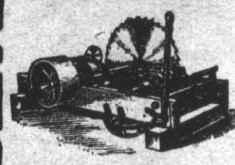
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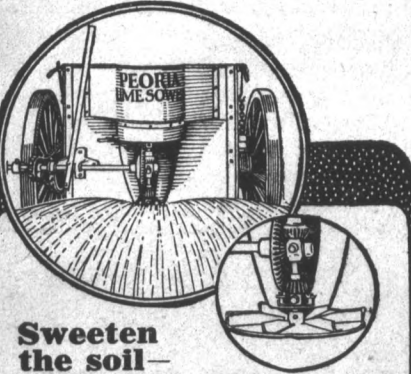
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\$60 IN ONE DAY That's what McLeod made the first day out with this much needed accessory. Grab this new, year-round seller. Make yourself a bank-roll—20,000,000 car owners waiting. Sells at low price—100% profit. Write quick for exclusive territory.

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Sour soil means small returns. Sow lime and make your land increase your crops—liming pays big dividends.

The Peoria Wagon Fertilizer sows damp or dry lime. Uniform 18 ft. spread. Force feed. No windage waste—no clogging. Does double the work of wheel—costs much less. Attaches to wagon without removing endgate—strengthens wagon box. No high lifting. No cleaning or repair of cleats to attach. Half the gears and sprockets. Capacity 100 to 10,000 pounds. Fully guaranteed. Low in price.

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Chemist Turns to Farming

(Continued from page 273).

The wheat fields are seeded to clover which is pastured or plowed under for humus. About 100 acres is covered with barnyard manure each year. By these means the nitrogen content of the soil is amply maintained.

Phosphorus is brought to the farm largely in the form of acid phosphate. A twenty per cent product is used and this is applied at the rate of about 200 pounds per acre on wheat, corn, and oats. As to potash, he finds that the element is in adequate supply on this farm to grow maximum crops, so none is added.

The crop program practiced, is to put the stable manure on the legumes. Marl is added at the barn and spread on the land with the manure. This adds humus and fertility and keeps the soil sweet. Clover is plowed under where the soil needs extra fertility. The next year this legume land is planted to corn or potatoes. Two hundred pounds of the twenty per cent acid phosphate is added. The third year the land goes into oats with a similar application of acid phosphate. In the fall the land is seeded to wheat, with still another treatment of acid phosphate. This is then seeded to a

also provided. The floor of the coops is of concrete which has received two coats of asphalt paint. Mrs. Arbogast, who takes an active part in the whole farm program, has given special attention to the marketing of the eggs, which are sold to private customers. The eggs are shipped in metal cartons.

Hogs are kept to consume the corn sorted from the pedigreed seed. Nine brood sows furnish the pigs to carry on this line of production. The usual methods of handling the swine and providing sanitary conditions on the best farms, are followed here.

The power for field work consists of a tractor and twelve work horses. The horses are driven in four-horse teams whenever possible. The fields are large, making it possible to use this power economically.

Another important division on this farm program is the production of pedigreed grains. Chief among these is corn. A good seed corn house has been equipped. This has been arranged to give good ventilation. A furnace has been installed to properly dry the corn and to furnish heat during the winter when germinating tests are carried on. About 800 bushels of excellent seed was taken from the 1926 crop. This was gotten up in good shape and will be carefully tested before it is time to ship. The accompanying picture shows the method used to store the corn in this building.

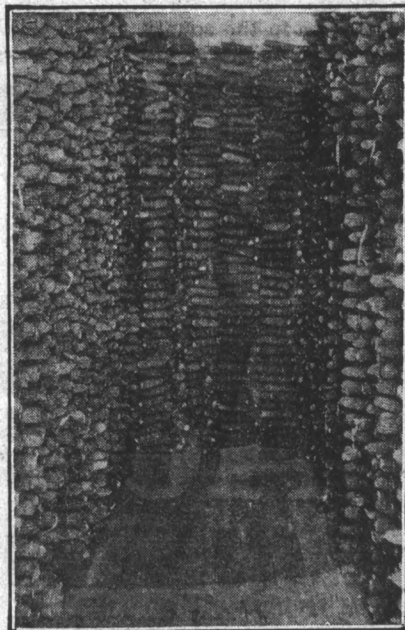
The Arbogasts, having once enjoyed the advantage of conveniences in a city home, decided not to dispense with them when they came to the farm. Accordingly, they set about the task of remodeling an old farm house to include serviceable steam furnace, running water, a fine bath room, a gas stove, iceless refrigerator, electric flat iron and ironer, automatic electric pump, electric lights, toaster, vacuum cleaner, and all those other electrical helps that may be installed once electric current is made available. The kitchen in this home impressed the writer as a model for convenience and equipment. In all, it is doubtful whether more of comfort and satisfaction could have been secured in planning a new home, than has been provided in this remodeled structure.

It may be on account of their contact with Mr. Edison, but the Arbogasts believe strongly in the use of electricity on the farm. In a number of matters costs and profits have been worked out, showing the advantage that a farmer and his wife may secure from the extensive use of electrical current in the home and about the farm premises.

The buildings are kept in good condition. Foundations, walls, and roofs have been given regular attention. Paint has not been stinted. The general grouping of the barns and other out-buildings makes for convenience of work as well as for fire protection.

But the interests of the Arbogasts extend beyond the business of making a living from the farm. Two boys, James fifteen, and John ten, play a big part in the interests of the family. Besides a fine library, there is provided on the second floor of the home, a work shop. Here the boys spend many happy hours in the construction and repairing of radios, in which all are interested, and in doing other mechanical work in which boys delight.

The family is active in the grange, Mr. Arbogast being Master of the local subordinate. He is also a member of the local Farm Bureau cooperative association, and is vice-president of the Michigan Crop Improvement Association. They also take part in the activities of the local church. James, as a sophomore in the Union City High School, has evidenced capacity as a scholar and gained honor as a pole vaulter. John is in the fifth grade of the public school.



How the Seed Corn is Stored.

legume crop and the rotation repeated.

The dairy is a major factor in the business of Bostwick Farm. The cream is sold to the sanitarium at Battle Creek. A fine herd of Guernsey cattle has been developed and these are housed in an up-to-date dairy barn. Here everything is provided for the production of a sanitary product with the minimum of labor. Electric lights and electric power are provided wherever they will aid in facilitating work. Cement floors and mangers, steel stanchions, an abundance of light, running water, and a well-appointed dairy room gives efficiency to labor.

The cows are fed a liberal ration. The grain portion consists usually of ground corn, oats, bran, oil meal and buckwheat mixed in about equal proportions. For roughage the cows receive alfalfa hay and corn silage. The barns are thoroughly cleaned and the manure is hauled to the field daily. As a result of this practice, all the fertilizing elements in the manure is saved and in summer there are few flies about the premises.

Model poultry buildings house several hundred White Leghorn hens. Hens are profitable when properly cared for, stated Mr. Arbogast. He has been able to increase winter production of eggs through the use of electric lights. These are turned on at four in the morning, which gives the hens a long day to exercise, eat, and lay. The birds are fed a regular laying mash, together with a scratch feed scattered in a heavy litter of straw, and a mineral ration. Cod-liver oil is

Grow More Pears

Some New Varieties Which Will Lengthen the Season

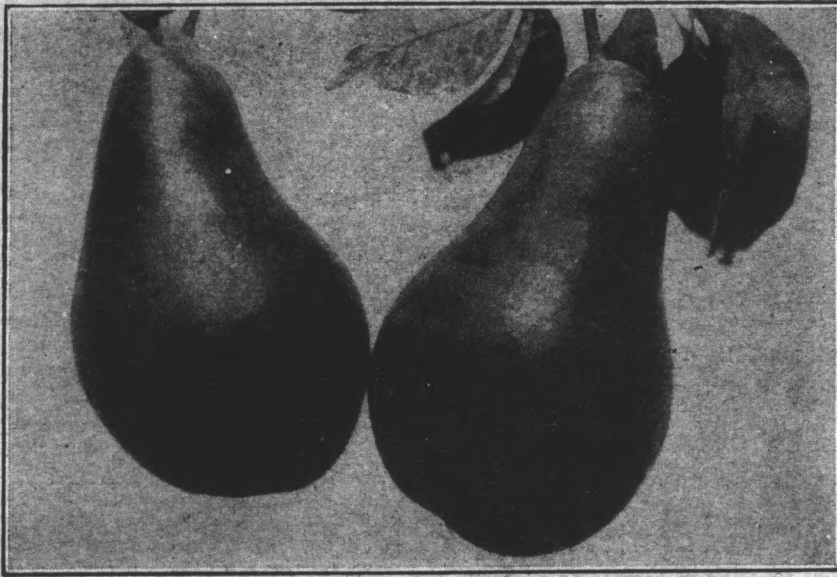
By Stanley Johnston

NOT many fruit growers or fanciers of fine fruits in America, with the possible exception of those on the Pacific Coast, appreciate the possibilities of the pear as a splendid addition to our late fall and winter fruits. The average person in this country does not think of eating pears after Bartlett, Seckel or Bosc have gone out of season. On the other hand, the people of France, Belgium, and other European countries regard the pear much more highly as a fall and winter fruit than they do the apple.

The Bosc, Conference, Anjou, Dana Hovey, and Winter Nelis constitute a succession of very fine pears that will keep the home well supplied with delicious fruit from late in the fall until late winter. The Bosc is well known among pear producers and consumers.

The Dana Hovey is a delicious little dessert pear, ripening late in November and keeping six to eight weeks, or even longer, in ordinary storage. It resembles Seckel somewhat, and has been called "Winter Seckel." For a fruit of wonderful quality during the Christmas and New Year season it cannot be surpassed. The fruits average slightly larger than those of Seckel. A rich, golden color overlaid with russet, adds much to the attractiveness of the fruit.

The reputation of being an unreliable cropper has always injured the standing of the Anjou pear, although otherwise it is a splendid variety. As an early winter pear, either for commercial markets or for home use, it is one of the best. The fruit is so attractive in all respects, particularly



The Conference is a High-quality Pear which Promises to Become a Good Market Variety.

The fruit merits unqualified praise. The pear at once attracts attention on account of its beautiful golden-russet color; the long, tapering, symmetrical neck, and, once it has been tasted, the unusually fine quality. It is to be regretted that the fine qualities of the fruit are not likewise entirely shared by the tree. It is necessary to top-graft or double-work this variety, due to its crooked, straggling habit of growth. Slowness in coming into bearing, together with a tendency toward irregular production, are also undesirable features of the Bosc.

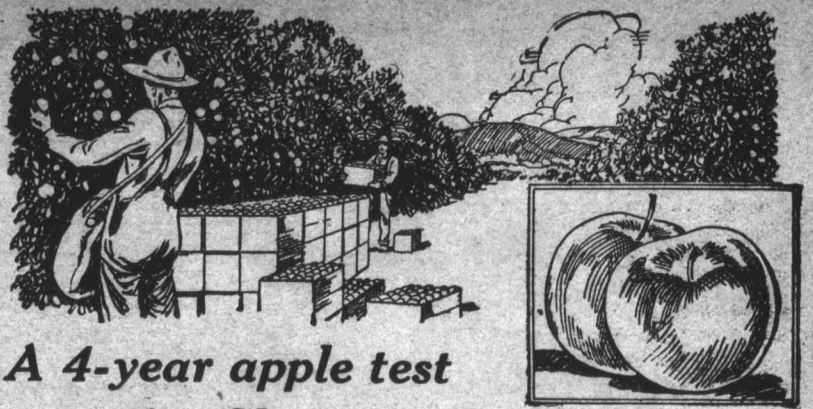
Among the many pear varieties being tested by the Michigan Experiment Station, one, the Conference, has made an unusually favorable impression. This variety is one of the standard pear varieties of England, where it is grown extensively for the fresh fruit market and for canning. After a number of years on probation, it seems to be worthy of more extensive trial among commercial pear growers and amateur gardeners. Its season is about the same as the Bosc. In common storage it can be kept until late in November, in cold storage much later. The fruit is quite large and is shaped somewhat similar to the Bosc, although the neck is not so pronounced. In color alone the Conference falls somewhat short of its other splendid characteristics, the color being a greenish-russet. However, when ripe enough to eat the fruit is very attractive. As to quality, the Conference, when properly ripened, is the superior of any of our commercial varieties. The tree of this variety is fortunate in having about as many good points as the fruit. It is medium in size, very productive, and it enjoys more than the average resistance to blight. The Conference is being distributed for trial and should be found in the collection of every admirer of pears.

with regard to quality and season, that it should be grown in a small way, if possible, for home use.

The Winter Nelis is undoubtedly the king of winter pears. Rather serious faults of both tree and fruit are so overbalanced by splendid virtues, that the variety is assured a pre-eminent position. The chief fault of the fruit is its tendency to run small in size, a condition that can be largely overcome by proper growing and thinning. The fruits are large enough, however, for dessert purposes, and when they are placed on the breakfast table the pears vanish like snow before a warm sun. The flesh is tender, very juicy, sweet, and with a pleasing aromatic flavor. The season in ordinary storage is very long, lasting from Christmas until March. In cold storage the pears can be kept much longer. Like the Bosc, the Winter Nelis makes a very poor tree, unless it is top-grafted, in which case it grows vigorously, is very productive, and is fairly resistant to the blight.

Two other fine winter pears, Doyenne Du Comice and Easter Beurre, are only at home on the Pacific Coast. Apparently, the climatic conditions in the middle west and east are not suitable for these two varieties. Where they are adapted they are important varieties for the commercial trade and for home use. Neither variety, however, is essential to the pear fancier in the middle west or east, as the Conference and Bosc mature during the same season as the Comice, while the Winter Nelis admirably fills the season at which the Easter is at its best.

The admirer of fine fruits, especially fine pears, should obtain scions of at least the Bosc, Conference, Dana Hovey, and Winter Nelis, and graft them into some other pear trees in the orchard or garden. He would be well repaid in the pleasure of growing them.



A 4-year apple test on the Clermont County Farm—

HERE'S the story of a four-year experiment using Sulphate of Ammonia as a source of nitrogen for apple trees. The test was made on the Clermont County Farm Orchard, Clermont Co., O., during 1922, '23, '24 and '25 on bearing trees, 13 years old in 1925, under grass-mulch and tillage cover-crop methods of culture.

And here are the results given out by Mr. F. H. Ballou of the Dept. of Horticulture, Ohio Exp. Station.

Four-Year Averages—Yield in Pounds per Tree		TILLAGE COVER-CROP	
GRASS-MULCH		With	Without
With Sulphate of Ammonia	Without Sulphate of Ammonia	Sulphate of Ammonia	Sulphate of Ammonia
247.3	79.1	279.6	71.6

Nitrogen application was 128 pounds Sulphate of Ammonia per acre and an additional four-fifths pound per tree scattered under the outer branches annually. Acid phosphate at the rate of 200 pounds per acre was applied to all plots. Varieties tested were Gano, Rome, Jonathan, Grimes, Stayman, and York Imperial.

The test shows that Sulphate of Ammonia produced much bigger apple yields not only under grass-mulch system but under tillage cover-crop method as well.

Results prove the availability of the nitrogen in ARCADIAN Sulphate of Ammonia

THE BARRETT COMPANY, AGRICULTURAL DEPARTMENT

Atlanta, Georgia
Montgomery, Ala.

New York, N. Y.

Medina, Ohio
Berkeley, Calif.

BF-2-27

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Please send me sample package of Arcadian Sulphate of Ammonia. I am especially interested in.....

(Write name of crops on line above)

and wish you to send me bulletins on these subjects.

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Address.....

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OUR SERVICE DEPARTMENT

Always Give Name and Address When Sending Inquiries as Satisfaction Cannot be Given to Unsigned Letters

SURVIVOR GETS PROPERTY.

Father and daughter had joint deed to farm which was deeded to them as joint tenants with the right of survivorship and not as tenants in common. Father died. Do I have to have the property probated and all brothers and sisters sign off before I can give a clear title to the property?—C. G.

The conveyance being to the father and daughter as joint tenants with right of survivorship, and not as tenants in common, the property belongs entirely to the survivor upon the death of the other, by virtue of the original conveyance and without any probate proceedings whatever. Nothing is necessary to clear the title.

CONTRACT FOR FRUIT TREES.

If B. should sign a contract for some fruit trees and afterwards, wishing to exchange farms, he writes to the fruit agent informing him that he did not want the trees, as the farm he was going to get contained plenty of fruit, and the agent does not answer B.'s letter, can the agent hold B. for the fruit trees and make him pay for it?—A Reader.

If a contract means anything, neither party can escape liability on it by informing the other that he does not care to perform it, and, on the other hand, the persons with whom the contract is made is under no obligation to acknowledge any such notice.—Rood.

PICKING GOOSE FEATHERS.

I have been raising geese for feathers. I was told that it is against the law to pick the feathers while the geese are alive. Is this true?—E. F.

We are unable to find any provision in the statutes, and do not believe there is any.—Rood.

ENDORSER OF NOTE.

I sold a certain party a horse and took property note against the horse. I backed the note and sold it to another man. The man placed the note in the bank for collection, and about six months after the note was past due, the bank notified me to come and pay it. The horse is dead. Can they make me pay? What can I do?—N. W.

The endorser of the note is undoubtedly not liable unless he waived protest and notice in making the endorsement.—Rood.

PERSONAL PROPERTY.

There are two married sons and a daughter in a family. Upon the death of the mother, who is a widow, would the household goods lawfully become the property of the daughter who has stayed in the home the most? Everything, including live stock and tools, are furnished on a farm. What is the share generally given for work, one-third or one-half of income?—E. B.

The personal property of any person dying intestate belongs to the administrator for the payment of debts and costs of administration after making a small allowance for the support of the widow and children during administration. The residue not consumed in this manner goes to the widow and children, if any, and if not, to the father and mother, and if none, to the brothers and sisters and their issue. There is no definite rule as to the division of crops in working farms on shares, each case differs so much in its circumstances.—Rood.

WIFE'S SHARE.

I am the second wife to a man with married children, and so, in case of death of either, does the other get the household goods, of which we both had a large amount?—M. E. T.

It is immaterial whether the wife is the first or tenth wife, she is entitled to one-third of his personal property

up to the sum of \$5,000, and after that one-sixth of his personal estate against any will that he may make, and of his real property she is entitled to one-third of the land, and possession of the homestead.

DEBTOR'S EXEMPTION.

I hold a note for \$286 against a man and wife. They both signed it. What does the law allow them in this case? They have eighty sheep; four cows; two horses; one wagon; one mower; and horse; one rake; 100 hens; about forty turkeys, and some geese. They own 340 acres of land, but the Federal Land Bank has a \$3,800 mortgage against it. Could I take grain or hay by law if they have more than they need? They have a Ford truck worth \$300. Could I take that?—J. E. H.

The wife is not liable on a note given for her husband's debts, even though she signed with her husband. The husband is entitled, as exempt from execution, to two cows, a team of horses, ten sheep and their fleeces, implements and tools to the value of \$250, all poultry, and a homestead not exceeding forty acres to the value of \$1,500 above the amount of the mortgage. The Ford truck is not exempt. The debtor is also entitled to hay and grain sufficient to feed his exempt animals for six months, and is also entitled to feed for him and family for six months.—Rood.

THRILLING EXPERIENCE CONT.

(Continued from page 280).

The Cow Tail Derby.

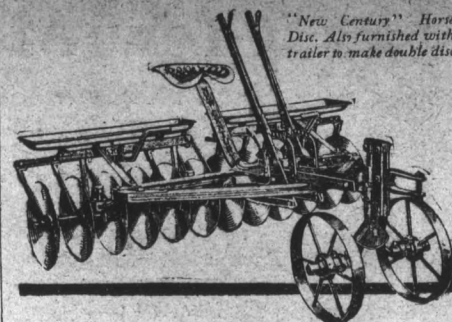
The job I dreaded most was to go after the cows. During the old days folks fenced to keep the cattle out, not to keep them in. People turned the stock out in the road after milking in the morning, and the cattle were free to roam the woods and swamps as they willed. Just about sundown I was supposed to sally forth and bring home the cows. I generally found them in a huge slashing which had grown up to briars and fire weeds until it was impossible to see more than a rod, and only the cattle knew the way out.

That summer a panther came to make his home in the big woods across the road. He had been seen a few times by men, and a few times I had heard his infernal screeching at night. Going after the cows became a daily nightmare, as I imagined that panther (we called it painter) in every clump of brush, waiting to dine on minister's son, and I said more prayers that summer than ever before or since.

This time I did not find the cows until almost dark. We threaded the maze of brush and emerged into the road a mile from home. Down the road we went, with me bringing up the rear, armed with a long, blue beech gad. We had reached the corner of the home farm a half mile from the barn, when suddenly an immense cat bounded into the road just behind me. Great jumping grasshoppers, talk about thrills! I grabbed the old cow's tail with one hand and brought down the gad with the other, while I let out the most heart stirring screeches ever yipped. The cow must have smelled the painter, too, because she lit out as she had not ran since her calfhood days. Down the road we flew—whack, whack, went the gad; thirty feet at a time flew my bare feet over the hard road, touching only the highest of the high spots. I felt that panther's teeth fasten on the seat of my pants at every jump.

"You didn't get much milk tonight, Louis, what is the matter? Did you run the cows?"

"Yessum, a little."—L. B. Reber.



"New Century" Horse Disc. Also furnished with trailer to make double disc

FOR ANY TILLAGE PURPOSE
FOR EVERY SIZE FARM
FOR HORSE OR TRACTOR

Roderick Lean HARROWS

In any Roderick Lean Harrow you use, you will find mechanical features and working advantages that provide better tillage and easier handling—features that set any Roderick Lean Harrow apart from ordinary harrows.

The Roderick Lean Harrows sold today are the result of sixty years of specializing in the manufacture, development and invention of better harrows. The world's best, most efficient harrows today bear the name, Roderick Lean.

There is a type and size fitted for every tillage need—disc, spike and spring tooth harrows, for horse or tractor power. Before you buy any harrow this spring, it will pay you to get the facts about Roderick Lean harrows. See your dealer today or write us for complete information.

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LADIES' PONY FUR COATS \$30
You furnish the raw horse hide, we tan, dress and make up coat. If you have extra fur for collar and cuffs, no extra charge, made in latest styles.
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Custom Fur Tanners
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Isbell's Seeds Do Yield More

You can make more money from your garden and crops when you plant dependable seeds—adapted to your soil. The work of preparing the land and planting is the same whether you use ordinary seed or pedigreed seed. But the crop tells the story; added profit—often double or triple—comes from using hardy, big-yielding, Michigan-grown, Isbell's seeds.

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For nearly a half century, Isbell's have been developing yield, vitality and hardiness in seeds. Careless experimenting, careful selection, better growing, sorting and cleaning methods have done this. 200,000 customers have proved this profit-building quality—they plant Isbell's seeds year after year and get bumper crops. We grow our own seed—you buy direct from us, saving money and eliminating all risk of substitution.

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The Book of Successful Threshing!

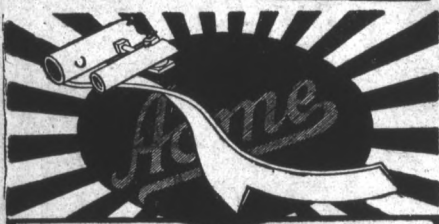
Before this book was written, thousands of farmers were asked concerning their methods of threshing. Every agricultural college in the grain growing regions, and U. S. Dept. of Agriculture were asked to contribute the latest facts and figures on threshing.

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it SAVES the FARMERS THRESH BILL



New Coulters for Old "Acmes"

Thousands of old ACMEs are being renovated this year at small cost with new Coulters. They are then as good as the day they were bought. We are prepared to furnish Coulters for any Acme Harrow sold since the No. 15 which was manufactured about 1890. Acme Coulters are made of very tough, high-carbon steel. Every one is backed by an unqualified guarantee—almost never exercised because they give such long and successful service.

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The ACME line is built for use with large Tractors and for small Tractors of the garden type. Also combination harrows for use with either horses or tractor. You can buy a horse-drawn ACME this year and add to it later the equipment for use with your tractor. You need no other tool to make a perfect seed bed quickly and economically.

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THE MOWER FOR THE FORDSON

THIS ONE MAN mower for the Fordson cuts 15 to 30 acres a day. It will do the work of three two-horse mowers.

Quickly attached—no changes necessary on the Fordson—ball bearings—two speeds—oiled automatically—fool proof—can be used with or without Fordson fenders.

Used on Henry Ford's farm.
DETROIT HARVESTER CO.
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Write For Full Particulars

Date _____
Gentlemen: Please send me full information on your Mower for the Fordson.

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WORLD EVENTS IN PICTURES



Bust of Franklin, by Robert Aitken, will be placed in New York University Hall of Fame.



Berlin, Germany, members of the House of David of America, engaging in housewifely duties.



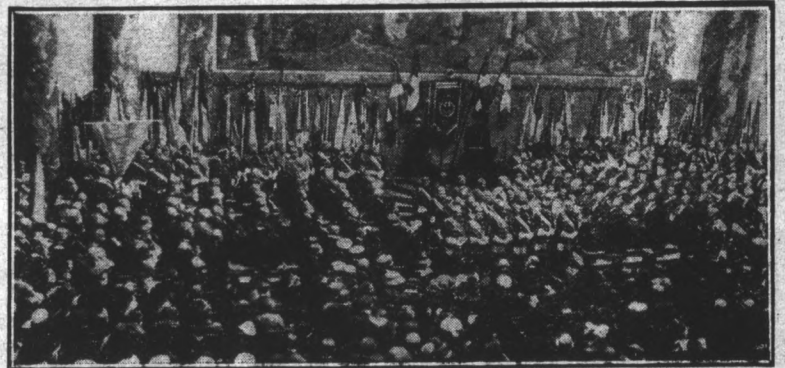
V. Henneman, former Belgian sculptor, made a Lincoln model in front of his home in Maine.



The cousin and the wife of the deposed Chinese Emperor in their Manchu state robes.



This unusual action picture shows Mary Wade riding "Delozel" over a triple bar jump in practice for the Los Angeles National Horse Show, the largest horse event of the west.



The Germans celebrated on January 18, the fifty-seventh anniversary of the founding of the German Empire, which occurred in the Castle of Versailles in 1871.



T. Tokowami, president of the Seiyuhonto party will head the new Japanese cabinet.



Mail carriers in rural districts of England have a hard time when they contend with snow storms while riding their bicycles.



T. V. Soong, Harvard graduate, is minister of finance of the Canton, China, government.



The famous Midwick "Big Four" lost to the Monterey Cardinals during the Pacific Coast polo championship contest. The Monterey team was led by Thomas Hitchcock, America's best player.



The funeral cortege of Empress Carlotta, wife of Maximilian, once Emperor of Mexico, was viewed by King Albert of Belgium. The Empress has lived in Belgium since Mexico became a Republic.

CHAPTER V.

MAE DIRKIN," she answered, and they went into the house.

Bill looked at me and I looked at him as we sat there on our sleds in the shadow of the sleigh. Then we unhooked and started home.

"Can you beat it?" I finally asked.

"Speck," he panted, for he was that excited, "there is more in this than meets the eye."

"There's quite a bit met the eye and ear already," I said. "Pretending to be cousins when he didn't even know her name. What are they up to?"

"It is as plain as your nose Jim never saw her before."

"The poor fish fell quick and hard for her, then."

"Well, she is the berries for looks."

"And for headwork," I pointed out. "Before you could wink, she had Jim all tied up."

"It was his own fault. All the same, tied up is right. Whatever she has up her sleeve, Jim is already what the lawyers call an accessory to the act."

"He's a goat," I said.

"He's a hooked fish," Bill said.

"But what can she have up her sleeve? If she's a thief, what is there here for her to steal? If she's a murderer, who can she be after?"

"Ivory dome," Bill sniffed. "Don't you see she has already done something and is running away?"

"How do you know?" I asked, for, in spite of myself, I was on the girl's side.

"Oh, how does anybody know anything?"

"Some people don't."

"So I've noticed. But never mind. Knowing what we do about it, it's pie to see that she is the one Mel had orders to arrest."

"Well, maybe."

"The police aren't after people who haven't done something, are they?"

"They may suspect her."

"Well, if she has run away just because she is suspected, it's proof she has done some crime. What?"

That was a good line of reasoning, all right. Bill's think clock was ticking as usual.

"So," I asked, "you think that she has come down here to hide from something?"

"You've said it."

"But no all wool crook would buy a ticket the way she did, as the depot master said."

Bill just shrugged his shoulders. After a while I said, "We ought to tell Mel about this."

"Tell your Aunt Emma!" Bill spun around on me. "Just as we get a mystery case going, you want to up and squeal. Suppose you do it, when the case comes to court you'll look more like thirty cents than three dimes. When the judge says to you, 'On what grounds do you accuse this woman of being a crook?' you'll answer, 'Because I heard Jim Bell ask her what her name was.' That will sound reasonable, now won't it? They'll take you for a nice, bright boy. Then you'll say, 'But Jim pretended to be her cousin and he didn't know who she was.'

The Piano Leg Complex

By Merritt P. Allen

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

And Jim will lie, because he is in love with her and has got to lie now that he has gone this far, and his word will look as good as yours and better because you have already shown yourself to be a half-witted—"

"Turn your switch," I cut in, "or I'll sock you one on the jaw. Just because you are a nut on detective cases and are afraid I'll queer this one for you

didn't damage his works any. The next day he was Sherlocking again, even to the extent of going to church on his own hook, for if Jim and the girl were wise they would be there and make a solid impression the first thing. They were on deck, singing out of the same hymn book when we went in, and if she acted a little nervous among strangers it was nothing



There on Her Knees on the Parlor Floor was Miss Dirkin, Examining the Piano Legs and Shooting Glances Over Her Shoulder at the Door.

is no excuse for handing me such talk. I'll keep it under my hat for a while, but don't think I am so soft that I don't know that the police would like to hear what we have found out."

"That makes the mystery all the more valuable," he put in.

"And another thing," I went on, "I didn't say I was going to squeal. I said we ought to. There is a big difference between doing what you do and doing what you ought to do. I guess you know that if anybody does. I wouldn't make trouble for Jim, and you know it."

"Oh, sure, Speck," he pulled in his horns. "I only thought—"

"You thought you could bullyrag me into keeping still so you could work on the case. Work on it, but get this between your ears, I'm keeping quiet for Jim's sake and not because I am afraid of you. You can talk the tail off a brass monkey, but you don't bluff me, and I don't mean maybe, William."

"Rooty toot!" said Bill, and that was all he said.

So that was that, and we went home and gave Scotty his supper.

Bill was peeved for a while because I told him where to head in, but it

to be wondered at. After meeting Jim introduced her right and left as his cousin, Miss Dirkin, and he let drop the fact that she was scouting around to see what the prospects were of getting a class of piano scholars. "If Mel doesn't interfere," he added, and everyone laughed for, of course, it was all over town that Mel had tried to arrest her.

SO it was that Miss Dirkin slipped into town as smoothly as a duck into a pond, and only that marvelous pair of boy sleuths had the ghost of an idea that she was not according to Hoyle. Of course, Jim knew better. And he was the last person in the world to shield a crook. On the other hand, if you have read much about "knights of old with hearts so bold" and all that, you know that a real he-man doesn't stop to ask questions when he sees a dame in trouble, but just sails in and pulls her out. Then, like as not, he learns that she deserved what she was getting and that he has got in Dutch for his pains. But there is no backing out when he gets that far; he has got to call the rest of the world a liar and then try to

prove that what he says is true.

The more we thought about it the more it seemed to us that Jim was in such a boat. That night at the depot he, being so big hearted, had seen only one thing: a strange girl in trouble, and he had done what he could to help her without stopping to think. You couldn't really blame him either, considering how lonesome and scared she looked, with Mel all set to jug her. Well and good perhaps, yet, on the other hand, Jim had tangled himself up with a suspicious character who might or might not be worth the candle. The chances were she would not be, for he must know that she had a mysterious hen setting or she would not have allowed him, a stranger, to pretend to be her cousin. He could not help knowing that she had not come to town especially to teach music.

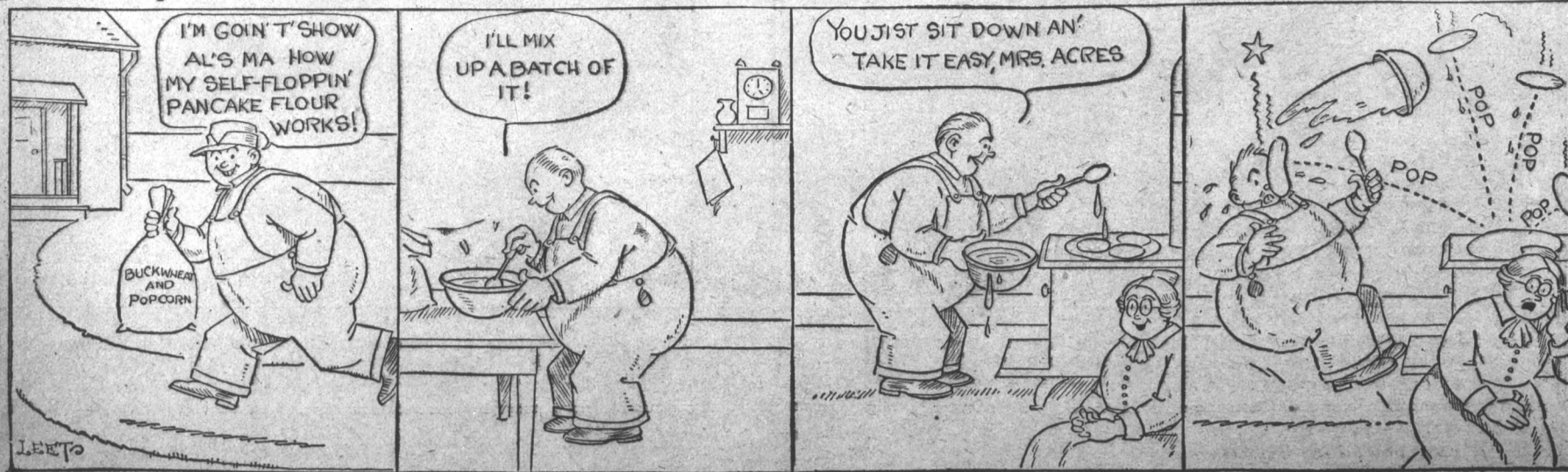
Right there was where our reasoning began to leak. We had a case all built up against her, based on the fact that she was not a music teacher and then, within the next couple of days, we learned that she was. She had a complete outfit of music books and, what was more, she could play the thing in Betsy Taber's boarding house parlor so that it didn't sound, as it always had before, like a tin peddler's cart falling down stairs. So, as Jim had known that the town was panting for a piano teacher as the hind panteth for a rock in a weary land, as the parson says, what reason was there for supposing that she had come for anything except to teach music?

And very soon she began to teach it. First, the deacon's wife had her down to the house for a try-out and the same day passed the word that she was modern. I suppose any stranger looked that way to Mrs. Brown after living with antiques like herself and the deacon. If Methuselah had happened down the pike she would have said he was modern.

One night after school Bill and I ambled over to the Browns on an errand for Ma and took Scotty along to get acquainted with Rupert's dog Zip. It happened that Miss Dirkin was giving Rupert a lesson and from the kitchen we could see him "putting his soul into his fingers," as Mrs. Brown said, but, judging by the sound, his soul was pretty wabbly that day. Zip and Scotty got along well and then, of a sudden the Browns' cat showed up. She had kittens out in the barn and dove for the pup the minute she saw him. During the first two seconds they went around the room forty-three times, upset three chairs and backed Mrs. Brown into the pantry, where she tipped over a pan of milk and put her elbow through a window. Then Rupert rushed out of the front room, thinking Zip might mix up in it, and behind him Miss Dirkin slammed the door and shoved a chair and sofa against it to keep out the merry-go-round. Just then Bill shied a stove hook at the cat and hit Rupert on the shins and at the howl he let out, his mother spun around, slipped and sat down kersplash in the pool of milk. Things were moving nicely and might have been interesting if Rupert hadn't

Activities of Al Acres—Ma Acres Will Need a Bomb-Proof Kitchen

Frank R. Leet



tumbled against an outside door, pushing it open and letting the dog and cat out. But they had to walk over him, and for days you could see their tracks on his face.

That in itself was nothing, it is liable to happen in any house, but the point is this: when we ran outdoors to see what had become of the pup, I jumped up on the sawdust banking and to steady myself, for it was slippery, caught hold of the parlor window sill. That swung me around a little so that to catch my balance I had to face the parlor. There, on her knees on the parlor floor, was Miss Dirkin examining the piano legs and shooting glances over her shoulder at the door.

CHAPTER VI.

SHE was looking at one of the piano legs in particular, but when my shadow fell on the carpet she slowly picked up a pencil that lay on the floor and then stood up, as though the pencil was what she had been down there for. Then, pretending to see me for the first time, she turned around and smiled, pulled the chair and sofa from against the door and went out. Whether or not Rupert finished his lesson I don't know, for considering how our pup had sort of upset things in the house we moved away from there.

When we got home and found Scotty there, not hurt but scared within an inch of his life, I told Bill what I had seen.

"What," I wanted to know, "in the name of fried fish was she trying to do with that piano leg?"

And Bill wanted to know, "What in the name of ossified oysters is she doing in this town anyway?"

I was never much at Sherlocking, but I said, "Maybe she is trying to find the leg Fitzhugh, the fake claim agent, took away."

"But remember," Bill pointed out, "he didn't take the one he thought he was taking. Is she looking for the one he thought he took or the one he took? And does she know that he took one? And if she does, does she think he took the one he didn't want and left the one he wanted, or does she think he took the other one and left that one?"

"Suffering jackrabbits," I said. "How do I know about what she knows or thinks she knows about the one he took and thought he left it where the one he didn't take was because the one he took wasn't where she thought he thought it was when he took the other one? What difference does it make?"

"Why, the leg he took is on Rupert's piano and the one he thought he took is on Julie's."

"What of it? You don't think that Fitzhugh and Miss Dirkin have really set out to steal a piano leg?"

"If he didn't swipe one, what do you call it? And she is beginning to show signs of the same thing."

"But a piano leg, Bill?"

"Why not?"

"And why?"

"I don't know. It's mysterious all right, but that makes it all the more fun. Great stuff, Speck! It'll pay to watch this rat hole."

True enough, still, even when you know there is a rat in a hole the watching gets tiresome after a while. Aside from her interest in piano legs Miss Dirkin was as peaceful a citizen as you could find in seven counties. She went about her business of giving music lessons, and the rest of the time stayed quietly at Betsy Taber's boarding house, a good share of it in the parlor with "Cousin Jim." Except for Bill and I, who were mum, everybody fell for that cousin bunk, yet if they had exercised their brains on what their eyes saw they might have known better. If Jim had been only a relative would he have hired a rig and taken her sleigh riding every now and then? Would he have dropped a pail of eggs on the store floor just because she happened to pass the window? Would he have put on his Sunday-go-

to meetings and called on her three evenings a week? Would his eyes have shone like a new flivver when he saw her coming? And when he spoke to her would his voice have been as soft and pious as sweet oil dripping on the family Bible? Not so you'd notice it. Cousins aren't built that way.

BEING a girl, she didn't object to all that flapdoodle. No; she didn't give Jim the gate, but whether she had taken a shine to him or whether she was only taming him for future use we couldn't tell. And it worried us, for we liked Jim. He was a good egg. Still, it was his funeral for he was of age and his eyesight was good. Perhaps if his sight had been poor he wouldn't have got in so deep, for Miss Dirkin was easy to look at, as the saying is. But, as the days went by, it seemed to me that she lost some of her pep. Her color was less, and as she wasn't one of the hand-painted kind it couldn't have been due to a shortage of decorations. Especially one day as she stood in the post office reading a letter, she was almost as white as the paper it was written on. And the next day there were dark circles under her eyes, and she looked worried the way a person does when their sister-in-law and the children are coming to spend the month of August. I was willing to bet a high hat, and Bill agreed with me, that there was something on her mind beside piano lessons and Jim Bell.

It wasn't so very long after that that we had our great and glorious Village Improvement Society bazaar. The improvement Society is composed of our "prominent citizens" who agree to give a dollar a year and fifty thousand barrels of hot air apiece toward the support of the outfit. The trouble is that only a few give the money, but all are on hand with the hot air so that the treasury, not being built like a balloon, is always low. That year they wanted to plant some trees and lay out flower beds in the park, and as long as people wouldn't give the money they decided to take it away from them at a bazaar. So they got out some posters and went at it. Everyone bought tickets on a barrel of flour and set of dishes and a dozen other things, knowing well enough they would get nothing except the satisfaction of losing their money in a good cause. The deacon wasn't quite sure that such a thing was moral; but he fell in line when they decided to give a chicken pie supper at the same

time. I suppose he thought there was something moral about chickens, perhaps because they had wings like the angels.

For two days before the show our prominent citizens hammered and argued and sawed and argued and trimmed and argued and decorated and argued in the old town hall. One side of it was made into a shooting gallery. On the stage was an evergreen harp for the orchestra to sit in, a pretty enough idea, though when it was done the harp had a family resemblance to a chicken coop. The rest of the space around the walls was taken up by booths and the center floor space was for the supper tables, which later would be removed to make room for dancing. The deacon didn't approve of that either, but was outvoted by the other members of the committee.

All set. After school a bunch of us kids were meandering around the place when Tilly Bowers hailed Bill and me to help her with her booth. She was to be a fortune teller and across one corner of the room was built an evergreen frame on which was stretched a piece of cloth about the size of a sheet. The cloth was black and on it were pasted yellow stars and a full moon, making it look, more or less, like the sky at night. The idea was for a person to stick his hand, holding ten cents, into the moon's mouth, which was a slit in the cloth, and Tilly, on the inside, would take the money, read his palm and tell his fortune in a loud voice.

"Come in here and lend a hand," she said. Which we were willing to do, for she was a good sort, about eighteen years old. And when inside, she whispered, "You kids want a job?"

We said it depended.

"I'll give you a dollar apiece to run this booth from eight to nine tonight and keep mum."

THAT was easy to see through. "That fellow coming over from East Hillbrook to go sleigh riding tonight?" I asked. Her folks didn't want her to go with him so it didn't take a very smart person to see that she was planning to slip out for a ride while pa and ma thought she was telling fortunes.

"None of your business about that," she snapped. "Do you want a job or don't you?"

"What we got to do?" Bill inquired before signing up.

"You sit in here and when anybody sticks their fist through the moon be sure there's a dime in it, put the mon-

ey in the box, paw their palm a while and tell 'em what you want to. The lights will be fixed so nobody can see who you are."

"You want us both?"

"I thought one would be lonesome without the other."

Well, we agreed to it, for beside the money it looked like fun.

"It's a go," Tilly said. "Now listen. My head wasn't asleep when I picked out the place for this booth. Part of it is the side door. Locks on the inside, dark on the outside. At eight o'clock you rap on the door, I open it, you come in, I slip out. At nine o'clock I'll be back and you let me in when I rap. Here's your money."

"Hope you have a good sleigh ride," I said.

"If you kids ever squeal on me I'll be in an awful hole."

We agreed to keep locked.

"The feller is all right," Tilly went on, "only the old folks don't like him. But I got to see him once in a while, ain't I?"

"Youth is youth," Bill spread out his hands preacher-fashion. "Go, my child, where they love listeth and trust the rest to us. Thanks for the dough. See you later."

That East Hillbrook guy must have been a fancy article if Tillie was willing to pay us two dollars an hour for his company. She probably thought he was, for a few months later they ran away and were married.

But to get back to the main road. Bill and I took in the chicken pie supper, that is, we took it in as long as we could swallow, then we fooled around until eight o'clock when we wandered out and up to the side door. At the first rap Tilly let us in, then she vanished into the night, as they tell about in stories, and we locked the door after her. To get the hang of it we had her tell our fortunes earlier in the evening, and learned that half the fun was spoiled by the fortune teller not knowing whose palm was being read, so when we took over the business I cut a peek hole, just a slit, in the curtain so I could tell Bill whose fortune he was digging out. For, of course, he wanted to be the fortune teller, which suited me, for it was more fun to watch the people through the hole than to sit back in the dark.

Though everyone supposed it was Tilly's high sing-song voice they heard behind the curtain, I honestly believe some people believed the bunk Bill dished out to them that night. For instance, after running his fingers over Mrs. Caleb Howes' palm, he told her that one very near and dear to her would be taken suddenly from her unless she watched out. "That means you, Caleb," she cried, pulling her hand back out of the moon. "I just know it does. I must take good care of you." And, sure as shooting, that night when he happened to cough a couple of times in his sleep she woke him up, gave him hot ginger tea, half a box of cold tablets and greased his lungs with lard and red pepper. She said she had staved off pneumonia and saved his life, and he said—but never mind what he said.

(Continued next week).

UNSHOD.

The storekeeper was attempting to give his new grocery boy some fatherly advice.

"Why," he said, "I even started out in life as a barefoot boy."

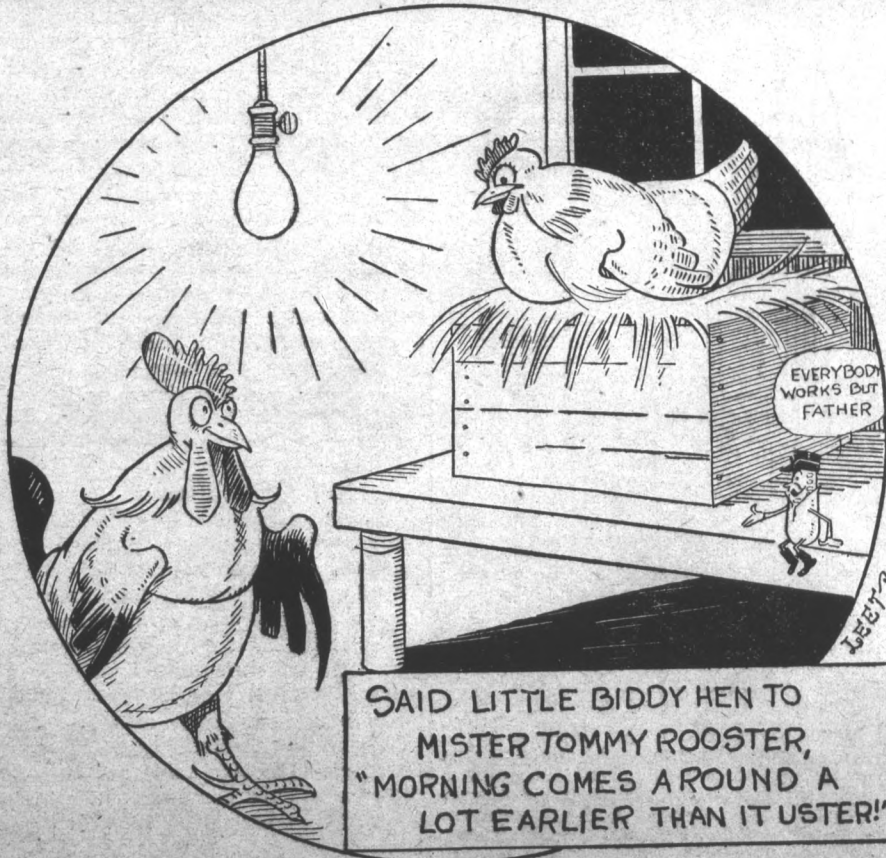
"I wasn't born with shoes on myself," was the lad's prompt reply.

The first French explorers in America knew the bison by the Indian name of "pisikuous."

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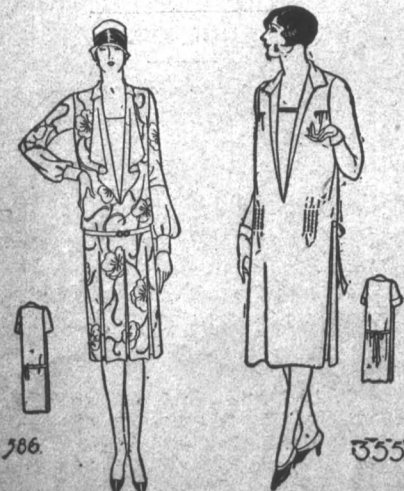
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Contagious Religion

Our Weekly Sermon—By N. A. McCune

IT is the old question of freedom again. "Use not your freedom for an occasion to the flesh," cries Paul, in this week's lesson. What is freedom? Who is free? There are many answers to this, but only a few satisfactory answers. In our day a certain class is declaring loudly that freedom means, doing what you want to do; "living your own life," it is called. The indulgence of the appetites and passions, the satisfying of physical desires. But the old Greeks, long before Christ, taught more wisely than this. They knew that freedom does not come that way. That is license, and ends in dissatisfaction. It destroys self control, and takes away the strong sense of duty, the foundation of any lasting character. Temperance, said the ancients, is the only way out. Self control, self discipline. Be hard on yourself. Compel yourself to mind yourself.



Jesus taught another and a better way. Discipline, the willingness to endure hardness, is necessary. But on top of that get the inner spirit of love; let the Spirit of God dwell within you, the spirit of life, love, hope, faith, the spirit which man cannot give, but which God can. Let this rule the life, and one comes to have the highest form of freedom, namely, spiritual freedom. This has been the experience of thousands, and they testify to the satisfying nature of this kind of freedom. Paul himself was an example. He worked very hard to overthrow the teaching of Jesus, because he felt he ought to do so. Then came his great experience on the Damascus road, and he submitted to the will of God. A new spirit came into him. He was different from that time onward. The American business man, Mr. Cabot, is another good example. Discouraged in mind and broken in health, he sought God, found Him, and a wonderful transformation took place, extending even to his health. Get his book, "Except ye be Born Again," and read it. "Walk by the spirit," says Paul. "Walk by the spirit," says Cabot. That is the highest freedom.

Ponder that fearful list, "the works of the flesh." Let us read it over in Goodspeed's new translation of the New Testament: "The things our physical nature does are clear enough—immorality, impurity, licentiousness, idolatry, sorcery, enmity, quarreling, jealousy, anger, selfishness, dissension, party-spirit, envy, drunkenness, carousing, and the like." Contrast the "fruit" of the Spirit, not the works of the Spirit. The fruit grows on the tree of the inner life. "Love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, self control." The appetite that is causing the most argument and trouble now, is the wet appetite. Many folk believe they will be free if they can have all the liquor they want. The experience of the past does not seem to satisfy them. One would infer that the Garden of Eden would be restored if only we could all bathe in rivers of liquor.

That prohibition is prohibiting, in spite of its enemies, is evident from facts that come to light every once in a while. From the London Times we learn that Mr. James Risk, manager of the Scottish Malt Distillers' Company, says that the consumption of whiskey is half what it was in 1913. It had been found necessary, said Mr. Risk, to dismantle the distilling plant at the distillery. He also said that two distilleries of his company, which had been offered for sale, were still in the company's hands.

The prohibition aspect of spiritual freedom cannot be escaped. There is no freedom of any kind to many people, who become the victims of drink. They cannot aspire to anything good and ennobling. The serpent of appetite kills the best in their natures, and taints every good impulse. One might as well invite a man with cancer of the stomach to Christmas dinner.

The teachings of the New Testament, whether of Jesus, Paul, or any of the other writers, are lofty. They must be worked at. No one ever saunters into righteousness with his hands in his pockets, and a I-guess-I-will-I-guess-I-won't attitude. The kind of freedom that is so high and distinctive that it becomes automatic, is a freedom that few of us have, to the full. We may be striving for it, but we have not attained. Beautiful as the aurora borealis, it also often seems as far away. But what is the use of a religion easy of attainment?

"A man's reach should exceed his grasp, or what's a heaven for?"

To live in a community where everyone made the right choices would be heaven, would it not? And to learn right choice is an art only arrived at in daily living in this work-a-day world. People have tried the virtues of colonies many times—colonies where a group would retire from the world, to specialist in righteousness, and to escape the pollution of an imperfect world. But this plan invariably disappoints. There must be the give and take of every-day existence, its trials, disappointments and victories. Christ did not live in a secluded colony, neither did Paul nor Peter. After all, it is a good world in which to acquire character.

SUNDAY SCHOOL LESSON FOR FEBRUARY 27.

SUBJECT:—Making the Community Christian. (Temperance Lesson). Galatians 5:13 to 25.

GOLDEN TEXT:—Have no fellowship with the unfruitful works of darkness, but rather reprove them. Eph. 5:11.

SUNDAY AFTERNOON CHATS FOR LITTLE FOLKS.

HIDDEN away in one of the books of the Old Testament, which contains so many chapters of hard names to pronounce, that we do not read it very often, is a very beautiful little story. It is but one of the many fascinating stories about a certain great King of the Hebrews.

He was hiding from his enemies in a cave, and many men who knew how brave he was and believed in him, had gathered round him, so that he had about four hundred followers. Thirty of them were so brave and strong that they were called "mighty men." Their wonderful deeds are told in this same book.

The powerful enemy, the Philistines, were holding the town of Bethlehem, which had been the boyhood home of this King. One day when he was discouraged and probably hot and thirsty, he said, "How I wish I could have a drink of the water from the well that is beside the gate of Bethlehem!" This was the well from which he had drunk as a boy. These three men overheard this wish. They made their way through the army of the Philistines, drew a vessel of water from the well and then fought their way back through their enemies.

But when they brought the water to David, he would not drink it, but poured it out upon the ground, saying, "This water was bought by the blood of three brave men. I will not drink it; but I will pour it out as an offering to the Lord, for it is sacred."

Do you know your Bible well enough to find this story in it? Next week we will tell you where to find it. The answer to last week's chat was Peter: Acts 10:9-18.

For two months now, we have had these chats on the different Bible stories. Do you like them? Have they helped you with your Sunday School lessons? Would you like to have them continued? If so, write a letter to Aunt Martha, care Michigan Farmer, Detroit, Michigan, telling her so.

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Search Out Old-Fashioned Treasures

They Leave Many Possibilities in Our Modern Homes

By Emma Gary Wallace

THOSE fortunate enough to have heirloom treasures are bringing them forth in these modern times and proudly making use of them in approved ways. Sometimes these old-time treasures need restoring, and even when they are restored, there is an appropriateness and dignity in their use not to be overlooked.

For instance, it is not fitting to gild the little wooden chair in which Grandmother sat in her shining kitchen to peel the potatoes, and place it in a formal drawing room. That is placing the honest chair in an embarrassing position that is not warranted. But the same chair may be suitably refinished, a cushion of bright chintz made for it, and used wherever sturdy, practical furniture is in order.

There are a good many fine Paisley and India shawls stored away which are treasures of yesterday. It is wise to look these over from time to time, and to air and sun them, for the dark, rich reds and terra cottas are favorite foods of the voracious moth.

To cut a Paisley shawl up to make some little garment of the season's mode, is like taking a sheet to make a night cap. If the Paisley shawl is injured beyond repair, then by all means use what is left to as good purpose as possible.

But where the shawl can still be kept intact, it offers many possibilities. Shawls, in their simplicity and beauty of form, are always used as wraps for suitable occasions, or to throw over a couch to give quiet richness and a colorful background.

The old-time tufted counterpanes are in favor once more, simply because we moderns have awakened up to the beauty of these carefully-wrought samples of art-craft work.

In one family where several of the tufted counterpanes are still prized, the oldest one of all—having considerably more than a quarter century to its credit—is beginning to break. The owner re-enforced this by a carefully placed lining of light-weight muslin, well shrunk, and the length of life of the counterpane is renewed.

The beautiful, woven counterpanes of wool with cotton warp—the wool being a rich red or deep blue—are much prized, both for bed coverings, and for draperies. In one fortunate home, a pair of these counterpanes, which happened to be made for single beds, have been used effectively as single window drapes with sheer muslin hangings underneath.

Grandmother's cup plates are looked upon with pride, and they do not need to remain idle just to be exhibited once in a while. They are admirable for the serving of salted nuts, of individual helpings of marmalade, or for relishes of an unusual character.

In the home of a prominent physician of my acquaintance is a rarely beautiful banjo clock. It was his father's wedding present to his mother. For years it was lost, and when finally traced and repurchased, it was in a sad condition, but a skillful worker restored it, and upon the glass door was the inscription such as might have been placed on the inside of a wedding ring.

In almost every family there are some heirlooms treasured because of associations. It may be an old book with woodcuts, which amuses us at the first glance. It may be a bit of old

jewelry, or a piece of wonderful needlework, for the fair ladies of an earlier day were patient and industrious. But whatever the possession, let us treasure it in justice to those who come after us, that they, too, may know something of the standards of their forebears.

WHAT MY NEIGHBOR HAS DONE.

MY neighbor earned enough money last summer to buy her own and children's clothes. When fruits and vegetables were ripe, she canned one quart of each kind as attractively as possible. She also made different kinds of jelly and pickles, and exhibited all at the state and county fairs. The State Fair prize for one cup of jelly is \$2.00 and she received a large percentage of the prizes for her efforts. The last day of the fair, she sold every can in her exhibit at a premium. She also exhibited baked goods and took several more prizes.

This extra work didn't take the time or eye strain that embroidery does, and was just as profitable. Another neighbor has made her pin money by

raising everlasting flowers, drying them and wiring them. She could sell more bouquets than she could supply. She liked it much better than poultry raising, which she had previously done.—Mrs. H. A. W.

Several years ago two of my neighbors decided that the women in the neighborhood should be organized. As a result, a club was formed, with mutual improvement as its aim. We are limited to twenty-four members and meet once a month, which is not often enough to be a burden, yet often enough so we can usually leave our work. In winter we have all-day meetings with dinner served by the hostess; in summer we go for the afternoon and serve light refreshments. We have literary programs prepared by two members each time.

In this way we meet our neighbors and go into their homes. Before the club was organized, we did not think we could spare the time for this, or at least neglect to do so.

It would be impossible to tell here the great benefits derived from the efforts of my two neighbors. Through

their efforts a real community spirit has developed, and several commendable community enterprises put across.

Once a year we entertain our husbands at dinner and ask the county agent or a man from the Michigan State College, to talk to us.—Mrs. O.

HOW DO THEY DO IT?

YOU'VE noticed, haven't you? There is a woman in every set who has no more money to spend, and perhaps less, than the rest but who is always dressed in style. Whether it's an afternoon tea, a formal affair, a summer outing, or just a chance gathering during a morning's shopping there she is. She'll be wearing just the proper style. Always exhibits good taste in dress.



That shows it's not just a question of money. Very often one can do so much better with the money now being used on clothes. So don't envy her. Learn the secret.

Our New Fashion Magazine will not only help point the way to the correct style, but it always enables the reader to obtain a pattern for each style, shown. You can

make for yourself any style illustrated. It is our suggestion that you send for a copy of this book and let it help you in the matter of dress just as it has helped many others. Address Pattern Department, Michigan Farmer, Detroit, Michigan.

Drive Insects off Plants

THERE are four kinds of insects that I have found especially troublesome on house plants in winter. They are lice, mealy bugs, scale and angworms. Here are some suggestions for controlling the pests:

Plant lice—green, black or brown—can be put out of business by spraying

oleate, mix ten parts of forty per cent free nicotine with seven parts of oleic acid (to the drug store for this). Take two tablespoonfuls of the salve and put into a gallon of soft water. Spray or dip the plants with this.

There are two kinds of scale—soft scale and hard scale. Scale is especially troublesome on ferns. Soft-shelled scale insects will turn up their toes (if they have any) if given the nicotine oleate preparation. The hard-shelled scale will have to be cut out and burned.

Angworms will generally come to the surface of the oil in the pots, if the pots are submerged in water. Put a little lime on the surface of the soil and give the plant a good watering—this will make the worms come out, too. I have also gotten rid of earthworms by watering the plants thoroughly with a solution of forty per cent nicotine sulphate—about two teaspoonfuls to a gallon of water.—E. K.

TO CLEAN BOYS' CAPS.

HOW good-looking the boys' caps of the present day, but how easily soiled! We pay two dollars for a cap and discard it in three months, too dirty to wear. But I have found that you can lengthen their use by washing.

Make warm suds by dissolving a tablespoonful of soap flakes in a basin of warm water. First lay the forepiece on a flat surface and scrub well with a brush dipped in the suds, and then clear water until clean. Then holding the forepiece firmly in the hand so that the stiffening will not wrinkle, submerge the rest of the cap in the suds, squeezing it with the other hand. Change into second suds then clear warm water. Squeeze out and draw over an inverted gallon jar or basin till dry, and press with hot iron on the inside.—Mrs. E. L.



Keep Insects Away and Your Plants Will Bloom Similar to this Cineraria Stellata.

with a solution of forty per cent nicotine sulphate and water. Directions as to strength of the solution will be found on the package of sulphate, which can be bought from most any seedsman. Spray this material on the plant, lower side of leaves as well as upper, or else dip the plant in a pail of the solution.

Mealy bugs are the powdery white insects. Nicotine oleate will control them. This material dissolves the waxy powder that shields the insects, and the nicotine does the work of killing the bugs. To make the nicotine

TESTED GOODIES.

Oatmeal Muffins.

Put two cups of rolled oats in bowl, pour one and one-half cups sour milk over and let stand over night. In the morning add one-third cup of sugar, one-fourth cup melted butter, one egg, well beaten, one teaspoon of soda, one-half teaspoon salt, and one cup flour. Beat thoroughly, fill buttered hot iron gem-pan two-thirds full of mixture, and bake in a hot oven over twenty minutes.

Swiss Cream Frosting.

Cream a piece of butter the size of an egg, add to it two tablespoons of fresh canned cream, half teaspoonful of vanilla and powdered sugar until thick enough to spread. Beat till smooth and creamy, and frost cake when it is cold.

Having made twelve pounds of sausage and using salt from a new sack, I found it was too salty to be palatable, though the same recipe was used as in other years. I purchased three pounds of unseasoned hamburger and mixed it thoroughly with the sausage and now the seasoning is just right.

If you use butter substitutes the coloring can be mixed in much better with a fork than a spoon.—Mrs. E. L.

How to Make a Spring Frock



ONE of the new popular models of spring is this surplice closing bodice finished with a shawl collar, and two-piece skirt with tiers. It is especially lovely developed in crepe black satin, with the shiny surface used for the entire dress, except the center tier on skirt, shawl collar and narrow cuffs, which may be of contrasting shade of crepe or of metal cloth. Light weight woollens are also adaptable. The lower illustration shows just how the pattern goes together. It is simple and easy to make, and a smart style when finished. Pattern comes in sizes 16 years, 36, 38, 40 and 42 inches bust measure. The 36-inch size requires $3\frac{3}{4}$ yards of 40-inch material. Price 13 cents in stamps or coin. Address your orders to the Pattern Department, Michigan Farmer, Detroit, Michigan.

MEASURE, IF YOU WOULD BE SUCCESSFUL.

GREAT respect is due to those born cooks, who never measure, but always have perfect results. If they actually do have wonderful results every single time, let them go their unmeasured way, with our praise. But I have a suspicion that many years ago when they were learning to cook, they had failures before their sense of touch, the basic sense of their delicate hands, and their eyes had become so accurate as to make measuring cups and scales to be scoffed at.

But for those of us who cannot tell by the looks of a hunk of butter wheth-

er it is seven-eighths of a cup, or nine-tenths of a cup, or a measuring cupful, we have accurate measures. Let us use them, and be thankful that with good recipes from many sources, we need not have failures.

If you follow a recipe, "for the love of Mike" follow it to a T. If you do not think it is good in the first place, don't start to use it. Perhaps it will give you an idea, for a new flavor or a new food combination, and it would be better to modify your own recipe than to use it. There are some recipes valuable only for their ideas, but imperfect in proportions.

Yet if it is a really truly good one, do just exactly as it says. If a recipe says to use salad oil, better do that if possible. It is 100 per cent fat, while if you substitute butter, which is fifteen per cent water, more must be used.—D. W. M.

MOTHER MAKES HER OWN REPORT CARDS.

A MOTHER of four children, wearied of telling them over and over to hang up their clothes, put their overshoes in the proper place on the back porch instead of in the middle of the living room floor, to be polite to each other, and a dozen other things.

Finally she decided upon a report card system, and purchased a large sheet of white cardboard which she cut in letter paper sizes. After ruling a card for each child, with spaces for each day of the month, she made a

crosswise ruling and marked these spaces. Clothes, Manners, Obedience, Cleanliness, Studiousness, Consideration of others, and Good Nature.

These cards were hung in an upper hall where no one but the members of the family could see them, and each night an A, B, C, or D in the proper space after every subject, gave the child's report. After the placing of the cards there was less trouble in getting the children out of bed in the morning, as each was anxious to see his or her record for the previous day.

At the end of the month, the child having the highest average in all subjects was given a dollar to spend in any way he chose.—Mrs. L. M. T.

Ideal cream soups are not thick in consistency, but have just enough flour to bind milk and vegetable smoothly together.

Our Little Folks

Twenty Tales from Timberland

WHY TOMMY TURTLE CARRIES HIS HOUSE ON HIS BACK.

ONCE upon a time, long ago, as Tommy Turtle was dragging along his stubby legs in his lazy way, Spotty hopped across his path. Spotty was none other than the frog who had more spots than any of the other frogs in Pussy Willow pond.

"Good day, sir, and where do you think your long hops are taking you to, today?" asked Tommy Turtle.

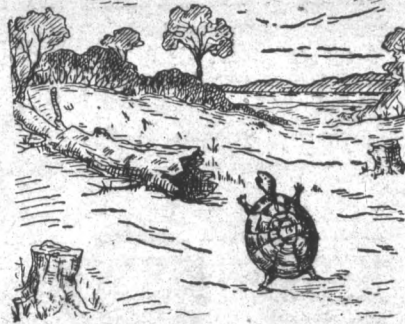
"To my new house in Pussy Willow Pond," replied Spotty, "and pray, tell me, where are you going at your slow gait?" asked Spotty.

"Most anywhere," answered Tommy Turtle, "but I wish I had a new house like you have."

"If you wouldn't loiter along the way so much, and sleep most of the time in the sunshine you might have a new house too," advised Spotty. "If you will come with me, I'll show you how fine my new house is," and Spotty puffed himself up with pride.

"Oh, dear, no. I can't come today," answered Tommy Turtle. "You see, when the sun makes a shadow like that," and Tommy pointed to his own shadow that seemed to be playing hide-and-go-seek beneath his broad flat body, "it is time for my nap. I'm very sorry, but I'll come to see your new house some other day."

"Sleepy head, sleepy head," croaked



The Bark of the Tree Stuck Fast to Tommy's Back.

Spotty, and he hopped on his way.

A hollow tree that had fallen to the ground lay close by.

"I'll just go in here to take my nap," said Tommy Turtle to himself. So Tommy wiggled his broad flat body into the opening in the hollow tree. It was such a comfortable spot that Tommy slept and slept and slept—a whole year or more. When he woke up at last, the bark on the hollow tree stuck so fast to his back that, wiggle this way and that, he could not shake it off.

"Oh, dearie me," lamented Tommy Turtle. "Now I have a new house but I'll have to carry it on my back."

And ever since that day, turtles have carried their houses on their backs, just as Tommy did.



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Fits Any Stove or Range Fully guaranteed against all defective workmanship and material for one year. Any part that proves defective, if returned, will be replaced free of charge.

New 1927 Uni-Hete Burner Outfit

vaporizes kerosene or distillate, mixes it with air, producing an intensely hot, clean, smokeless, silent burning flame. Heat can be regulated to any degree by fuel controlling valves. Improves your stove 100%. Have been manufacturing oil burning devices for thirty-three years. We make this offer for a limited time only. Specify if for range or heater.

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Buy Michigan Accredited Chicks from Lakeview. Official records up to 252 eggs. Mich. Egg Contest 1923, 24, 25. Every Breeder inspected and passed by inspectors supervised by Mich. State College.

Prepaid Prices on	25	50	100	500	1000
White Leghorns (Tanned)	\$3.75	\$7.00	\$13.00	\$62.00	\$120.00
Barred Rocks, S. C. & R. C. R. I. Reds	4.25	8.00	15.00	72.00	140.00

Special matings higher. Mixed chicks \$10.00 per 100. All heavies \$12.00. Order from ad. New catalog free. Write today. Member I. B. C. A.

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Stock all blood-tested for bacillary white diarrhea for past three years. All birds passed state inspection. We guarantee 100% live delivery. Two leading breeds.

Barred Plymouth Rocks and S. C. White Leghorns

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THEY COST NO MORE AND YOU CAN FEEL SAFE. Our chicks are from leg-banded stock selected by expert trained and educated by Poultry Department, Ohio State University. You can feel safe, for you know every chick is up to highest standard for egg production and breed type. Get our special wholesale price on brooder stove when bought with chicks. SEND FOR OUR BIG CATALOGUE. It tells all about our pedigreed males and special pen matings. Also gives details about our high producing utility birds. Prices reasonable. Valuable book free with each order. Write today.

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Postpaid prices on	25	50	100	500	1000
S. C. W. Leghorns	\$3.75	\$7.00	\$13.00	\$62.00	\$120.00

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POULTRY

Poultry Feeding Problems

Discussed at M. S. C. Meeting

MR. A. G. PHILLIPS, Fort Wayne, Indiana, discussed poultry feeding problems during the Farmers' Week meetings, and claims we are still striving for a complete ration. But the ration cannot make a poor hen lay and the machine that uses the fuel is the primary proposition. Breeding counts with hens the same as with fast horses. For example, Dan Patch was a very fast horse but never produced any fast colts. Yet Peter the Great, who was faster than Dan Patch, produced colts faster than himself. In poultry breeding the fire of experience is necessary to make your judgment practical.

Good Physical Condition.

A feeder of championship steers may be able to tell you how he does it, and yet, if you try your best to follow his instructions, you may never be able to produce a championship steer. The personal factor is also important in the feeding and breeding of poultry.

Egg production is reproduction and hens must be in good condition physically for reproduction. Of the feed the hen consumes, she uses seventy per cent for maintenance, ten per cent for growth, ten per cent for reserve, and ten per cent for egg production. When an engine is speeded up it must be oiled and given good care or it will break, and the same thing applies to the management of heavy-laying hens. High-producing birds face greater risks, and a hen which lays 329 eggs will be an exception if she produces livable chicks.

The concentration of many birds in a limited area increases the danger of disease. Fundamentally, it should be five times as hard to raise chicks now as years ago, although, in fact, it is easier because we know more about chicks.

Feed Plenty.

In feeding poultry it pays to give the hens all they can eat all the time—of the right thing. More grain for heat is needed in winter, while less is needed in summer. About twelve to fourteen pounds per 100 hens per day is about right for fall and winter. There is only ten per cent protein in corn. A hen may eat too much corn trying to get enough protein, and too much fat result.

Growing chicks exercise naturally in the same way that a vigorous boy does not have to be told to run and keep active. The all-mash method used at Purdue for feeding chicks is practical. In Harrison county, Indiana, there were one million chicks raised last year with the all-mash method, and the farmers are completely sold on that plan. Sixteen farms in Indiana tried to feed all-mash to hens, but when the winter days became cold it was necessary to feed a little extra corn to prevent a reduction in bodily weight, with a consequent lowering of egg production. It is natural for old hens to eat grain and neglect mash if they are in separate hoppers.

Sources of Protein.

Milk comes nearest to being a complete protein. Meat scrap or fish meal are not complete proteins. Do not feed white corn to poultry unless combined with alfalfa. Alfalfa in the ration makes poultry grow. But it is best to use yellow corn anyway. Limestone, bone meal and a little salt furnish the required minerals. Professor Phillips predicts that in five years we will reduce the amount of protein in poultry feeds and increase the min-

erals, and that ninety per cent of the chicks will be raised on all-mash feeding.

Toe-pecking among chicks is not a nutritional problem, but when large flocks of chicks are in a small area some of them start fighting, and they love blood. One remedy is to hang colored buttons on strings just above the chicks, and they become interested in pecking at the buttons and forget each other's feet.

Artificial lights are all right for growing early broiler chicks, and it works fine in the east where they feed ducklings for rapid growth. It is not advisable to use lights in raising the breeding stock, as we do not wish too rapid growth or early maturity.

Chicks die-in the shell because we do not feed the hens right. Strong-shelled eggs hatch the best and high egg production is not so apt to lower hatchability if the hens are properly fed.

Iodized salt is all right for chicks. It is economically sound to place cod liver oil in a feed and keep it for some time, although authorities differ. The chicks handle very little fibre, and you do not wish them to eat oat hulls. Barley is a better feed than oats in the grain ration of the layers. Stronger eggs shells result from feeding alfalfa. Cracked corn is more appetizing to the hens than whole corn. If you feed commercial cracked corn, place corn feed meal in the mash. The hens need the germ of the corn which, of course, is present in the home-cracked corn.

LEG WEAKNESS OF POULTRY.

LEG weakness is not in itself a disease, but a symptom, according to Dr. H. Stafseth, of the State College Bacteriology Department. The disease is in the intestines and may be due to coccidiosis, worm infestation, malnutrition, fowl cholera, or certain types of tuberculosis. There is a great need for more descriptive names for poultry diseases. For example, black-head and white diarrhea are both poor names to describe the diseases in question.

One kind of leg weakness is due to the deficiency which is made up by feeding cod liver oil, while other cases of leg weakness might not be cured by cod liver oil. It is believed that a large number of cases of leg weakness are due to coccidiosis and may appear when the birds are from four to fourteen months of age.

Because a disease cannot be seen in a bird is no sign that it is not working there. Germs are so small that they cannot be seen, and they work in cell structures so small that the cells cannot be seen. For example, cattle might be slaughtered for tuberculosis and no lesions found. But that would not prove the tuberculin test of no value, as the disease might be present, although not in a stage where it was yet visible.

If poultry houses are cleaned at least every four days it helps materially to cut down coccidiosis, as that amount of time is required for reinfection. It takes the germ four days to reach the stage where it can reinfect another bird, and how much longer than four days the germs can live is indefinite. The college does not claim to have a remedy for every disease.

An elephant tusk in the British museum is over ten feet long and weighs 226 pounds.



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Freight Prepaid
East of Rockies and allowed West. If in a hurry, add only 45c for each incubator or brooder (except 400 and 600 sizes) and 17c ship Express Prepaid. Order now or write to: Belle City Incubator Co. Box 14 Racine, Wis.



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FEEDING AND POULTRY DISEASES.

(Continued from page 273).

which have been left unburied. At other times, it is caused by eating mouldy or spoiled feeds. This condition is characterized by a limber neck; hence the name.

The sudden appearance of several cases in the poultry flock in which there is paralysis of the neck, and the head hangs limp, should indicate ptomaine poisoning. This should not be mistaken for wry neck following worm infestation, as with it the neck is twisted to one side, or over the back, and the muscles are not limp like in the poisoning. The comb is usually bright in color and the feathers of the neck are ruffled and may be easily pulled out. It is not often that an outbreak of this occurs, but that there are a number of birds affected at the same time. There is usually a watery diarrhea present. In many cases, if a dead bird is opened, you will find maggots and decomposed meat in the crop. At other times, you will find spoiled grain, such as mouldy corn, oats or wheat.

Look For Cause.

This condition is of such a nature that little can be done other than to remove the cause of the trouble, whatever it happens to be. A careful search must be made to determine this, and then remove it from the feed of the flock. The sick birds should be removed and, if possible, give them a good laxative of epsom salts, one teaspoonful in some water, or two teaspoonfuls of castor oil. It would be advisable to give the rest of the flock a dose of epsom salts in their feed. Use one pound to each 100 birds, mixed with the mash feed. The salts should be dissolved in water before mixing with the mash, and the birds fasted over night.

Diarrhea in Hens.

While not contagious, this disease if often a serious condition, affecting the laying flock, interfering with production, and greatly lessening the vigor and vitality of the birds. It is readily recognized by the watery fluid condition of the droppings. It most often results from sudden changes in the quarters of the birds, or from changes in the feed.

Affected flocks should be deprived of all meat proteins, such as tankage and meat scraps, and fed only grain or mash feeds. The feed should be laxative in nature, and should also have some green material in it. Milk is excellent for the protein, and small amounts of wheat bran and oil meal are also good. Plenty of water should be allowed, and it should always be fresh and offered in clean vessels.

Withhold Food.

When this condition is noticed, the first thing to do is to withhold all feed for eighteen to twenty-four hours, then give one pound of epsom salts dissolved in water, and then mixed with a light feed of mash. Then the following should be secured of your local druggist:

Sodium salicylate, two ounces; tannic acid, two ounces; ferrous sulphate, two ounces. Dissolve one tablespoonful in water and mix with the mash two or three times daily. The mash should be wet, but not too sloppy.

Since poultry does not object to the odor and taste of feeds in the same manner as dairy cattle and horses, many owners are led to believe that it does not injure them to eat substances that are tainted or spoiled. It is true that they will not be injured to the same extent as those animals that are more susceptible to inflammations of the intestinal tract. Yet they do suffer very often from eating feed that is spoiled. It is a practice that is always dangerous and not a safe one to follow. The flock should have good, wholesome food, just as any other of the domestic animals.

GLASS CLOTH Brings Amazing Success with BABY CHICKS



Fred Turner
Discoverer of Glass Cloth

If you want unusual success with your chicks this year raise them under GLASS CLOTH. This wonder material admits the life giving ultra-violet energy rays of the sun. (Plain glass stops them) Science has discovered these rays prevent rickets, softness, leg weakness and many other chick troubles. Death loss from these causes is stopped. Ultra-violet rays enter the body, supplying Vitamin D and speeding up the building up of bone and tissue. Chicks thrive amazingly and grow very fast. If you want to raise every chick, if you want early broilers and layers, put GLASS CLOTH in your brooder house windows and build a GLASS CLOTH scratch shed where the chicks can run and exercise in real sunlight. It is nature's health remedy. All you need is a roll of GLASS CLOTH and a few scraps of lumber. Experts recommend it. Repays its cost many times a season.



The Ames Test

Experts everywhere recommend GLASS CLOTH. In a test at Ames College 25 per cent of the chicks under plain glass died, while all under GLASS CLOTH lived and grew rapidly. The illustration shows the difference in two chicks that had the same start and same care, except that the big one had plenty of ultra-violet light and the runt had none.

Ideal for HOT BEDS

Much Cheaper Than Glass

GLASS CLOTH is the cheapest and best covering for hot beds. Costs a fraction as much as glass and gives far better results. Vegetables and flowers mature weeks earlier and produce bigger yields because GLASS CLOTH admits the life giving ultra-violet rays of the sun. (Plain glass stops them.) Plants grow stronger and harder and transplant better. GLASS CLOTH holds the heat of the sun and throws it to all parts of the frame. Under glass, plants become weak and spindly for want of violet light.

Patented—Accept No Imitations
Genuine, durable GLASS CLOTH is made only by Turner Bros., under exclusive patents. No other concern can copy our process. No other has the same weather resisting formula. Avoid imitations. Real GLASS CLOTH is a strong fabric specially treated to make it transparent, waterproof and weatherproof. Originated in 1916 and proven by eleven years success. You will know it by its quality. So much cheaper than glass it has won wide popularity all over the United States and Europe.

SPECIAL TRIAL OFFER
Send \$5.00 for big roll 45 ft. long and 36 in. wide, postpaid. (Will cover scratch shed 9x15 ft.) If, after ten days' use, you do not find it better than glass or any substitute, return it and we will refund your money. For smaller quantity send \$3.50 for 30 ft. roll, or \$2.25 for 15 ft. roll. Common sense instructions, "Success With Chicks," with each order. Catalog illustrating uses on request. (Many dealers sell Glass Cloth.)

Turner Bros. Dept. 4216 Bladen, Nebr. Wellington, Ohio



Foreman's Official Champion Layers

Official records are the safest guidance to reliable sources of better chix and stock.

WE BREED OUR WINNERS

Write for free catalog illustrating our official contest winners and America's foremost strains of Production Barred Rocks and White Leghorns.

Valuable plan of Foreman-Improved Michigan type Laying House free.

FOREMAN POULTRY FARM, Box 323-D, LOWELL, MICHIGAN
PROF. E. C. FOREMAN, Owner and Manager

PROFIT PRODUCING CHICKS

ROCKS 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.

BRUMMER-FREDRICKSON POULTRY FARM, BOX 20, HOLLAND, MICH

EARLY MATURING BABY CHICKS

Our years of experience is your guarantee of quality stock. When better stock is to be had we will produce it for our customers. Stock all blood tested for past three years. We hatch B. P. Rocks, R. I. Reds, S. C. W. Leghorns, W. P. Rocks, & W. W. All from proven blood lines. Write for circular and price list.

MILAN HATCHERY, Box 4, Milan, Michigan

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-Tancred 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

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
Box B Birmingham, Mich.

Established 1911

ROYAL EGG BRED LEGHORNS

CHICKS FROM CONTEST WINNING BLOOD LINES.
Our White Leghorns won the 1925 Michigan Egg Contest. Contest average 176 eggs. Our pen averaged 241 eggs. You get same blood lines as produced these winners in Royal Chicks.

303 EGGS AT AMERICAN EGG CONTEST.
This year our hen No. 251 laid 303 eggs at the American Egg Contest. Is it any wonder "75% of our business is from old customers?" In spite of heavy demand as a result of these winnings, our price remains the same. Order early and be sure. Money refunded if order can't be filled when specified. Free literature.
ROYAL HATCHERY & FARM, S. P. Wiersma, Prop., R. 2, Box M, Zeeland, Mich.

\$1064 Egg Revenue From 680 Unculled Pullets In Seven WEEKS

One customer reports this splendid return from our April hatched Grade A White Leghorn Chicks, Nov. 1 to Dec. 19, 1926. This is a fine, but not unusual record for our regular stock. 750 surplus cockerels raised from his 1000 chicks also gave him additional revenue. Our hens now leading Michigan and Oklahoma Contests are birds of similar breeding. All our stock blood-tested, and every breeder on our own farm traced from its first to last egg. All birds have been handled, passed, Leg-banded and CER-TIFIED by the Michigan Poultry Improvement Association. Write at once for Price List and FREE Catalog on Baby Chicks and Hatching Eggs.

W. S. HANNAH & SON Route 10, Box M Grand Rapids, Mich.



"CHICKS with a FUTURE"

MICHIGAN ACCREDITED Chicks from PURE BRED flocks. All parent flocks BLOODTESTED for the past three years.

	Per 100	Per 500	Per 1000
P. B. Rocks	\$15.00	\$72.00	\$142.50
R. I. Reds	15.00	72.00	142.50
S. C. White Leghorns	13.00	62.50	122.50

100% PURE BRED

RICHARDSON HATCHERY, Dundee, Mich., Box B

OUR PAGE

What I Like About Lincoln

Some Good Thoughts by Prize Winners

W E boys and girls could not find a better example to follow than Abraham Lincoln. His was a true, noble, christian character. First of all, I like him for his honesty and truthfulness. When he was a boy he borrowed Weems' "Life of Washington," from a friend. One night he put the book on a shelf and during the night it snowed. The book became wet and was ruined. Abe did not try to keep the truth from his friend. He went to him, telling him what happened, and offered to work to pay for it. He worked three days to pay for the book.

When a young man, Lincoln clerked



Better Love a Snow Man than No Man, Thinks Venice Shepherd.

in a store. One day in making change, he made a mistake. That night after the store was closed, he walked several miles to give the six cents to the lady he had shortchanged. If everybody were as honest as Abe Lincoln, what a different world this would be.

Another thing I like about Lincoln is that he was studious and ambitious. All the books he had was the Bible, "Aesop's Fables," "Pilgrim's Progress," and "Life of Washington." He studied nights by the light of the fire, and wrote with charcoal on the back of a shovel. His parents were poor and Abe worked hard cutting wood and splitting rails. He was always ready to do anything to earn an honest penny.

He was always honest and upright in all his dealings. He was known as "Honest Abe." Once a task was begun, he did not give up. It was his steadfastness and honesty that helped him to win the love and respect of the nation.

Lincoln was always kind. During the war, he visited the wounded soldiers in the hospitals and spoke words of cheer to them. He was always ready to help anyone in trouble. I think the American people should celebrate his birthday the same as they do Washington's. Washington was the Father of His Country, but Lincoln was "The savior of it." It is my hope and desire to live and have as pure and noble a character as Abraham Lincoln had.—Leslie Wilkinson.

Abraham Lincoln, to me, has always been the greatest hero in American history. His great heroism, his fine personality and his great deeds of valor have endeared him to the world.

Born a backwoodsman, under great obstacles, he educated himself so that in later years he might occupy the highest post in the land. I have al-

ways liked Lincoln for his kindness to dumb creatures. He could not bear to let animals suffer, as is illustrated by the "pig in the mud" incident.

When elected President, Lincoln faced the commandeering of a nation about to enter conflict with itself. When the great trouble began, he showed fine judgment in the management of the armies, and as a result the north came out victor in the Civil War.

After leading the nation through the crisis, Lincoln fell victim to an enemy's bullet; and the great hero's life was ended. But Lincoln is not dead. His great deeds of courage, no doubt, will live forever in the hearts and minds of the American people.—David S. Johnson.

Lincoln was a great person. As a lad, he was honest, amiable and ambitious; and as a man, he wasn't only just generous and kind, but he made himself what he was—a capable, useful citizen of America. Would not ours be a much better country if the youth of today followed in Lincoln's

footsteps and did only what is just, thoughtful and kind?

What I like most in Lincoln was his executive ability to think, do and act. Lincoln was seldom idle, for if he were not developing his body with manual labor, he was feeding his brain with fit foods—study or good reading.

George Washington is renowned for truthfulness, but Lincoln was called "Honest Abe." A little scene touched upon by history is proof to his kindness, wherein Lincoln was present at a slave auction. With great disgust he remarked to a friend that if ever he got a knock at slavery, he would knock it hard.

That Lincoln was invariably busy, is a fact we know. Sitting up late at night, he learned to read by a dim fire, for Lincoln was a humble wood-cutter and lived in a lowly home, with very little leisure to acquire an education. His tablet and pencil were only a wooden shovel whittled by his own hand, and a piece of charcoal.

Lincoln was a great personality. Born in that rude little cabin in Kentucky a century and a quarter ago, I wonder if it were not a definitely planned matter that he should lead the tolerant life and share in deep sympathy the trials of all humanity. Long live the memory of President Lincoln.—Adeline Bradshaw.

influence by not associating with those who smoke. A nice sweet breath is better than a smoky one, and then the smell of old smoke in clothes—that's not agreeable. I'm glad you think "Our Page" is helpful.

Dear Uncle Frank:

I have belonged to this circle for a long time, but never got time to write to you, for some reason or other. I read the Michigan Farmer every



Remember "Vic?" She's the Girl in Boys' Clothes.

week, and am especially interested in "Our Page." We do not live on a farm, but our place is in the country just the same.

I have been in California and other states, and love the great open spaces. I have followed the discussions and arguments between the boys and girls in your paper, and think they are very nice, although I would suggest discussing books or something of more interest. With best wishes.—Randolph Keupper, Turin, Mich.

I am glad you like the open spaces and are back in Michigan after having been in California and other states.

Dear Uncle Frank:

We have a radio at home and enjoy many good programs. We have discussed bobbed hair, knickers and evolution until the subjects are worn out. Why not talk about the benefits we are receiving from the radios? I enjoy lullaby time as much as the musical programs.

We attend Sunday School on Sunday through the radio. Well, I will close, as I haven't any more time.—Alberta Coleman, Maple City, Mich.

I believe most everyone who has a radio enjoys it. I like ours very much, but lullaby time is not my favorite, of course.

Dear Uncle Frank:

I want to thank you for the pencil box, pin, and card I received. You know, it seems kinda funny to have a big fellow like me win a pencil box. I am a junior in high school and am almost sixteen years old.

I never knew girls were so queer, till I read "Our Page"—talking about powder as they did. There is one thing I'll always think, and that is, that it would be just as polite for a man to shave in public as it is for a girl to paint her face. I've been reading "Our Page" for quite a while, and find it interesting.

Well, I'll sign off.—Horst Beyer, Paw Paw, Michigan.

I'm sorry that the pencil box seemed "too young" to you. Perhaps you can give it to your little sister, or your girl's little brother. I am glad that "Our Page" has been useful in giving you some sidelights about girls. I agree on the shaving stunt.

Dear Uncle Frank:

Well, I have only one more year to answer contests and join the M. C. activities. I've answered many, but so far, have never won anything. Going some, isn't it? Taint my fault!

Yes, I stick up for the farm, too. I was born on a farm and have lived all my seventeen years on a farm and think there is nothing better.

Every little while one of those wide-awake boys writes a letter, but they only write one and quit. No, siree, you won't see the girls scatter—no matter how many of you get roused. We will stick right to it. Girls don't

OUR LETTER BOX

Dear Uncle Frank:

I again enter the ring hoping that I may be able to stay for at least three or four rounds, because it is very distasteful to me to be knocked out in the first.

One person has asked what are flowers for. They are the means by which plants reproduce; they furnish the coloring matter of the universe and help to render the surroundings more pleasant to behold; they furnish man with food, clothing and medicine; they are what makes life worth living. If it were not for flowers, man would soon lose all desire to live, cease to advance in knowledge, deteriorate, and finally die off.

Evolution, as understood by the masses, is a narrow-minded conception of it, for no sensible person believes that man came from a monkey or any of the lower orders. According to Noah Webster, evolution means to develop, and all animals, plants, and living

as to land my attempt in the waste basket.—North West, Dryden, Mich.

It is distasteful to be knocked out, isn't it? Flowers, evolution and schools—these good substantial subjects all in one letter. All are well discussed, too.

Dear Uncle Frank:

I have often wanted to write to you when I read some of the arguments that have been brought up. I think the Farmer's Flapper Daughter has surely given herself the right name. If there is anything that lowers and degrades a girl, it surely is smoking and drinking. I wonder what the boys think of her.

She calls herself an up-to-date girl, but I surely know you don't have to smoke and drink to be up-to-date. It is no wonder the older generation is so disgusted with the younger generation if they read such things as that.

I like the title, "Our Page," very much. It seems more grown-up. I also like the arguments in the letter box. I think, although arguing does not get you anywhere, it surely does strengthen your mind. And perhaps you can argue enough to make people see through the thought from another way, provided it isn't a woman you are arguing with.—Alexander Morton, Grand Haven, Mich.

You took a good slap at the smoking flapper. To be modern does not mean to be immodest. I'm glad you brought out the idea about arguing. Wholesome argument helps the mind, even if you argue with a woman.

Dear Uncle Frank:

I don't like smoking at all, but we girls who do not like smoking can't stop the smokers from doing so. We can talk all we want to, but what's the use? It's their funeral, not ours.

Our M. C. page does as much good as it gives pleasure. Correspondents from all over Michigan, even some who are not in this state, like "Our Page" and correspond with M. C.'s, and make friends.

While at school some tire of penmanship. It seems we care more about our penmanship while writing letters. Though some M. C.'s would think me lying if they saw this letter as it is.

Before I stop, Unk, what happened to the M. C. fund?—Helen Piper, Spruce, Mich.

Yes, smoking has meant several people's funeral, but girls can have some



Kent and Ruby Rosenberg Enjoy their Pets.

things have certainly developed in the past few thousand years. If people would use their dictionaries and read their histories, much wrangling and ill-feeling would cease.

Consolidated schools are a very fine thing, and much better than the old type, but they will never be practical in many localities until the roads are improved, and this cannot be entirely accomplished for many years. If the improvement was attempted all at once, the taxpayers would soon become bankrupt and matters would be worse than before.

Well, I will close with the hope that the knock-out will not be so complete

give up as quickly as boys do, no matter what the cause is.—Ann Wrona, Pellston, Mich.

Boys, what do you say about this? Do the girls stick to a thing better than the boys?

Dear Uncle:

How many silent readers there are in this family! I'll admit that I am one, too.

I am very much in favor of "Top-sy's" idea on farm life. He (or she) is on my side of the fence. Every boy and girl is lucky who has a farm home. I'd hate to part, very much, with my New York hill farm for any city in the world.

I ride horseback, use horses most anywhere on the farm, and consequently am a farmerette.—Your niece, A New Yorker.

You must have a nice farm home to like it so well. Your pastimes are healthful ones.

DRAWING CONTEST.

IT is a long time since our artists have had a chance at the prizes and they are asking for the opportunity. Therefore, to comply with their requests, this will be a drawing contest. The subject will be spring. Any drawing of things that have to do with spring will be considered, for instance, budding trees, pussywillows, boys playing marbles, girls jumping rope, etc. There is a large number of subjects you can select from.

For the two best drawings from girls, we will give nice boxes of stationery; the next three, beads. The two best drawings from boys will win flashlights; and the next three, pocket knives. The contest closes March 4. Send your drawings to Uncle Frank, Michigan Farmer, Detroit, Michigan. Don't forget to put your name and address on the drawing. If you are a Merry Circler put M. C. after your name. Merry Circle cards and buttons will be given all not now members, who send in good drawings.

VALENTINE WINNERS.

THIS must have been a real popular contest, as solutions of it came in great abundance in every mail. The boys did much better than the girls, not in numbers, but in getting words from the letters in the word Valentine, as you will see by the results below.

Somehow or other, the printer left out the Uncle part of my name, so hundreds of letters came addressed, "Frank, Michigan Farmer, Detroit, Mich." That showed, at least, that the contestants were observing.

Below are the names of the winners and the number of words they made. You will note that Guilford is also good at this kind of a contest.

Flashlights.

338 Ross Menzer, Eaton Rapids, Mich.
300 Guilford Rothfuss, Norvell, Mich.
Pencil Sharpener Combination.
277 Harvey M. Seeley, R. 4, Grand Ledge, Mich.
205 Martin Hoeflin, Kingsley, Mich.
184 Auden Wymer, R. 2, Wheeler, Mich.

Boxes of Stationery.

292 Mary B. Pynda, R. 1, Midland, Mich.
277 Lera C. Seeley, R. 4, Grand Ledge, Mich.

Beads.

276 Ida Mae Hurley, R. 5, Williams-ton, Mich.
188 Vianna Wymer, R. 2, Wheeler, Mich.
186 Lillian M. Barry, R. 6, Albion, Mich.

CANNING CLUB CHAMPIONS.

MISS CHRISTINE HELM, Walkerville, has been selected by Miss Harriet Wilder, assistant state club leader for Michigan State College, as Oceana county canning club champion. Miss Helm is a student in the Walkerville High School. She did her canning work in the Beech Canning Club last summer. The leader of this club was Mrs. Emma Chase. She was assisted by Mrs. Alma Clark, Mrs. Jennie Ellis, and Mrs. Anna Helm.

The five girls in the Beech club canned a total of 323 quarts of meats,

fruits and vegetables at a total cost of \$79.76 for material and cans. This figures all fruit at market value. The total value when canned, was \$163.24, leaving a profit of \$98.48 for the five girls. Besides this the club brought home a nice purse of premiums from the county fair at Hart where they made an attractive exhibit.

Miss Neva Newell, of Hesperia, local champion of the McLaren Lake 4-H Canning Club, gave Miss Helm a close race for the county canning club championship. Neva canned forty-eight and one-half quarts of fruits, and twenty-one quarts of vegetables. The nine girls who have reported from this club report the canning of 359 quarts of fruits and vegetables at a net profit of \$42.77. Mrs. Archie Himebaugh was the local leader of this club. The McLaren Lake girls also had an attractive exhibit at the county fair and won their share of the premiums. The girls in both communities are now engaged in 4-H clothing club work.

FOUR-H CLUB NEWS.

THE following incident of club work is reported by L. H. Matthias, club agent in Hillsdale county: Recently a stranger from Moscow township came into my office and asked where he could buy two Jersey calves for his boys. He said that he had been watching the work done by club members in his neighborhood and that he was much impressed with what the work had meant to these club boys. Two calves were obtained for the man and he then wanted to know where the heifers could be taken for service.

There were three Jersey bulls in the community where the buyer of the heifers lived, and after a visit was made by myself and this man to the homes of the owners of the bulls, the owners decided to sell the animals which they had, and to buy a better herd sire. They bought a bull whose dam had died just previous to the completion of a record which entitled her to a silver medal. By this somewhat roundabout way, club work brought another good herd sire to Hillsdale county.

ART THOU ATTENDED BY ANGELS?

For, lo! from out of time and place, Two hands are in a fearful race.

One hand, spotless, clean, pure and white,
Holding your right arm, through the night,

And all through the day it is there,
But then, it is paid—not one care.

The other: black and marred by sin.
It holds the left arms of all men.
By day 'tis there—not through the night,

For then angels are guarding right.

Should the black hand conquer the white?

It would snatch you up in the night,
Then steal you to a prison cell,
And lock you in the gates of hell.

Should the black hand be the victim,
And with the angels of heaven,
Under their soft wings you would lay,
And arrive in heaven—next day.
And among the heavenly host,
Angels of whom He loves the most,
Be seated on the Throne of High,
I'm now anchored in that "Sweet Bye."

So now—be sure which way you sway
To this right, during night and day.
—A. S.

IT COULD BE WORSE.

If you bump your toes
And fall and skin your nose,
Is it easier to heal,
If you stop to curse and squeal?

If you're dressed in Sunday clothes,
And the wind comes by and blows
Your straw hat in the ditch,
Will you laugh and say that's rich,
Or will you call the good wind down
And shake your fist and frown?

The Moral.

Always look on the "sunny side,"
And you'll come thru with a clean "hide."

If you're troubled do not curse!
Just say: "It could be worse."

—By John W. Rytie.

Dead or Alive?

It's up to you, Mr. Poultryman



Chick losses are due to wrong feeding and lack of proper care at the start. Stop the losses—save the baby chicks by feeding Blatchford's Chick Mash. Contains exactly the ingredients chicks need to keep them healthy and make them grow big quicker. Easy to feed and most economical.

125 years experience in preparing feeds and the Blatchford reputation is your guarantee of highest quality and maximum efficiency. Recommended and used by leading poultrymen everywhere. Means better results and more profit to you. Try a bag and see the chicks and money you save.

Blatchford's Chick Mash

Send for FREE Sample

Just a bit but enough to show quality. Send coupon. Also if interested in MORE EGGS AT LOWEST COST PER EGG send for FREE SAMPLE and complete information about the old reliable

Blatchford's "FILL THE BASKET" Egg Mash



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Send me free sample of:

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and valuable poultry information.

Name _____

Address _____



Town Line POULTRY FARM

Michigan Accredited

writes customer from Muskegon, Michigan. This is an average of 21 eggs per pullet per month. YOU can do the same with our stock, which is the result of 14 years of breeding for SIZE, TYPE, WINTER EGGS and HIGH FLOCK AVERAGE. Instead of a few high individuals. We have HOLLYWOOD, TANCRED, and ENGLISH type S. C. White Leghorns, SHEPPARD'S Anconas, Brown Leghorns and Barred Rocks. Hollywood foundation stock from 200-290 egg record; Tancred foundation stock from 250 up egg record stock. Ancona foundation direct from Sheppard. The very best in Brown Leghorns and Barred Rocks. Our chicks are HEALTHY, VIGOROUS. Newtown hatched chicks from free range breeders. The strongest proof of the quality of our chicks is, that we have doubled our hatching capacity over last year. With "TOWNLINE" you also get "PERSONAL SERVICE. LARGE NEW CATALOG FREE. NOTE THESE LOW PRICES.

English type S. C. W.	100	500	Anconas and Br. Leg.	100	500
Hollywood or Tancred	\$13.00	\$60.00	Barred Rocks	\$14.00	\$65.00
	15.00	70.00		16.00	75.00
			Assorted or Mixed Chicks 10c Each.		

Chicks shipped postpaid. 100% live delivery guaranteed. Discount on early orders.
J. H. GEERLINGS, Mgr. R. F. D. No. 1, Box M. ZEELAND, MICH.



UNDERMAN CHICKS

Chicks that are hatched from free range breeders carefully selected. Our flocks and hatchery inspected and passed by representative of Michigan State College. Refer you to State Commercial Savings Bank. Order from this ad. Our chicks are Michigan Accredited.

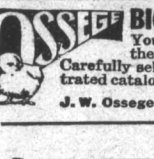
Prepaid prices on—	25	50	100	500	1000
S. C. W. and Br. Leghorns	\$4.00	\$7.00	\$13.00	\$62.50	\$120.00
Br. Rocks and S. C. R. 1 Reds	5.00	8.50	16.00	77.50	150.00

Mixed Chicks \$10.00 per hundred.
10% down books your order. Free catalog. 100% live delivery prepaid.
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Blood Tested Baby Chicks

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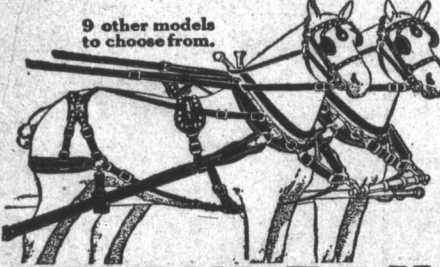
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The past few years have brought out conclusive evidence that many of the failures of our farmers in getting stands of alfalfa and clover were due to the use of unadapted seed.

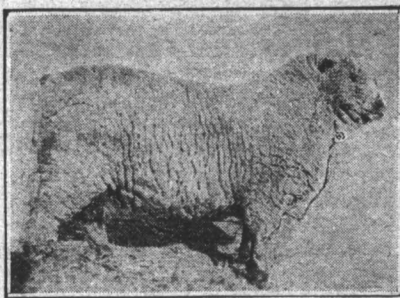
Send for instructive folder "Take the Uncertainty out of Seed."

Michigan Farm Bureau Seed Service
Lansing, Michigan

Live stock AND DAIRYING

MICHIGAN BETTER BEEF ASSOCIATION.

THE Michigan Shorthorn Breeders' Association, Michigan Hereford Breeders' Association, Michigan Aberdeen Angus Association, and Michigan Red Polled Breeders' Association met at a luncheon at the Michigan State College, February 1, during Farmers' Week, for the purpose of discussing the better beef campaign that has attracted so much attention throughout the country. R. R. Miller, American Hereford Breeders' Association, gave a short talk. W. A. Cochel, Kansas City, Missouri, spoke on the value of the better beef campaign to the beef producers in general. F. W. Harding, American Shorthorn Breeders' Association, Chicago, outlined the workings



This International Grand Champion Yearling Shropshire Ram is Owned by Charles H. Steel, of Eaton Rapids, Michigan.

of the better beef campaign as it affects packers, and discussed at some length the grading and stamping of beef carcasses. Governor Fred Green was present, and the breeders were very pleased to hear a few words from him.

The beef breeders present were quite enthusiastic regarding this work, and felt that the better beef campaign should do considerable in educating the consumer to know and demand better beef, and that it would also assist the producer to get the needed premium for quality beef.

A Michigan Better Beef Association was organized with the following officers: President, W. W. Crapo, of Detroit; vice-president, S. H. Pangborn, of Bad Axe; secretary-treasurer, W. E. Judson Edwards, of East Lansing; directors, H. W. Harwood, of Ionia; James Curry, of Marlette; John Killick, of Doster.

FEEDING AND CARE OF THE BREEDING EWES.

LAMBING time will soon be here, and with it comes trials and troubles, and it isn't possible to do as one new and inexperienced rancher advised his foreman to do. The lambs were coming very rapidly, but the weather was bad and a great many were being lost, so the foreman telegraphed to the owner saying, "Bad weather. Losing large numbers of lambs. What shall I do?"

The reply came back at once, "Postpone all lambing operations until better weather."

We are always in hopes of obtaining a large lamb crop. On small flocks sometimes one gets as high as 150 per cent lambs, while on larger flocks one does not usually obtain such good results.

Pregnant ewes should gain about twenty-five pounds apiece before lambing time. That means that they should be in a thrifty and a gaining condition. If they gain in flesh, they will produce more vigorous lambs, will nourish them better, and will disown fewer lambs than those who do not gain during the winter.

A very satisfactory ration for an average size ewe weighing about 150 pounds, is about two or three pounds of silage daily, and about a pound of some leguminous roughage, as alfalfa, clover, or soy bean hay. With such a ration, little or no grain need be fed until about a month before lambing time, when about a half-pound of grain per head should be fed. Corn and oats is very good, or if legume hay is not available, some high protein feed, as linseed meal, should be fed at the rate of about one pound to ten ewes along with the other grain mixture. Cornstalks and oat straw may be fed for roughages; but if fed, should be fed before lambing rather than afterwards.

Plenty of exercise is also necessary for good health, for otherwise many deaths may occur due to lack of exercise. Exercise may be secured by scattering cornstalks some distance from the sheep barn so the sheep will have to travel back and forth daily. One can also allow the ewes to roam the fields on bright days.

One other factor in producing a high percentage of vigorous lambs is that of proper shelter. A dry bed and protection against rain and snow is all that is necessary, but the shed should be free from drafts as sheep are apt to catch cold, run at the nose, etc., if they are subjected to drafts.

Proper feeding, exercise, and proper shelter should give a good percentage of vigorous, healthy lambs that will be a delight to the owner.—J. P. Hoekzema.

BREEDING A HEIFER.

A heifer that will be two years old in April came fresh January 25. How soon, for best health of cow, and for profits, should she be bred again?—A. D. H.

The exact method of handling the heifer in question will depend upon just how well she has been grown up to date. If she was kept growing by the proper kinds of feed before she freshened in January, and was normal, or nearly normal in size, I would handle her just like any other heifer and breed her about three months from date. On the other hand, if she is small, rather stunted, due to early pregnancy and milk production, I would recommend that she not be allowed to drop her second calf until about fifteen months after she freshened the first time. I would milk her ten or eleven months, about as long as she would milk. Then, during her dry period, before she calves, I would grain her and feed her just about as though she were in her full flow of milk. During the entire milking period this year she should have plenty of good growing food, such as alfalfa or clover for hay, and a well balanced ration that contains a sufficient amount of protein for all of her needs and plenty of growth. Some advocate drying a heifer in this condition off early, but in my opinion there is much to be gained by milking them, even though they give only a small amount of milk for ten or eleven months. I believe that it develops a habit of persistency in the heifer at this age, which is the thing that we want to develop and obtain in all of our cows.—O. E. Reed, Professor of Dairy Husbandry, M. S. C.

Seventy-five farmers in the community around the town of Ruth in Huron county have organized a cooperative live stock shipping association. The organization was completed on the twelfth of the month, and a shipment of two carloads of stock was sent out on the twenty-fourth.

A MICHIGAN TUBERCULOSIS FREE FARM CERTIFICATE.

THE project of eradicating tuberculosis from cattle in the state of Michigan is so nearly completed that much attention is now being given to the eradication of the disease in poultry and swine. With the exception of North Carolina, which has very little tuberculosis in live stock, Michigan has more accredited counties than any other state in the Union. Out of a total of eighty-three counties in Michigan, thirty-four are modified accredited counties, nineteen have had one complete test, two counties have the first test in progress, eighteen are on the waiting list, and ten have not yet appropriated the funds required for this cooperative work with the state and federal government. The facts are, the state of Michigan can be made practically free from tuberculosis in cattle during the next two years if the Legislature makes an adequate appropriation estimated by the state and federal officials at one million dollars for the biennium.

In the counties which have been tuberculin tested, and are officially accredited, the people have been so well pleased with the work done thus far, that a desire has been manifested in many sections to have the poultry flocks and breeding swine tested to make sure that the farm is entirely free from this disease. In response to this demand, the state and federal officials have prepared a certificate which will be issued to farmers who have submitted their poultry and swine to the test, and are now known to be free from this disease. That avian tuberculosis as found in poultry is readily transmitted to swine, has been fully demonstrated by the investigations of the United States Bureau of Animal Industry, the University of Nebraska, the University of Illinois, and other research agencies.

Hillsdale county, Michigan, was in the first group of accredited counties in the United States, and was the first county to receive the benefits of the ten cent premium. A large number of other counties are now receiving this premium. For example, the state of Iowa, which is crowding Michigan for first place with twenty-eight accredited counties, received a total of \$166,485.93 in premium checks paid to its farmers on accredited hogs during the year 1926. While these hogs from accredited counties show a marked reduction in the number of condemnations for tuberculosis, there are still a large number that show slight lesions on the glands of the throat, which usually means the condemnation of the head, and a material loss. In nearly all cases these slight lesions are found to be of the avian type as a result of hogs associating with chickens on the farms. It is a common practice everywhere to permit chickens to mingle with the hogs, and the germs in the chicken dung are often picked up by the hogs from the ground or the feeding floors.

In some sections of the country, particularly the northern states of the middle west, tuberculosis in chickens is very prevalent. This has been found true in Michigan. The issuance of the tuberculosis-free farm certificate is a forward movement to make the work of eradication complete in every respect.

At the time when the breeding hogs and poultry flocks were tuberculin tested on a number of farms in Hillsdale county, arrangements were made with the State Tuberculosis Society for the holding of free clinics, so that members of the family could be informed as to whether or not the human type of the disease existed on the farm. In several instances these free clinics did demonstrate the presence of tuberculosis in the family where the herd of cattle was found infected.

Considerable progress in the eradication of tuberculosis from swine and

poultry, as well as cattle, have already been made in that county. The demand for this work is fully as pronounced as the demand for cattle testing.

Certificate No. 1, the first of its kind to be issued in this or any other country, will go to Fred Clark & Sons, Route 5, Hillsdale, Michigan; Certificate No. 2 to Bach Brothers, Route No. 4, Hillsdale, Michigan; Certificate No. 3 to H. R. Gilmore, of Camden, Michigan. Five other farmers have been designated to receive these certificates in that county, and it is predicted that many more will make application for the satisfaction of knowing that tuberculosis in any type or form does not exist on their premises. It is a worth-while movement and no doubt will spread to other counties and other states of the Union.

MISSAUKEE HAS FOUR COW TEST ASSOCIATIONS.

FOUR cow testing associations organized within one year is the unusual record made during the past twelve months by Missaukee county dairymen.

On March 1, 1926, through the promotional efforts of the Lake City chamber of commerce, the first association started operations, with John Goodall as tester. Four months later the second association was created in the vicinity of Falmouth, with John Scott in charge. Later in the summer the dairymen around McBain decided to line up for regular cow testing work, and organized the third association, but lack of testers has prevented this organization from functioning during the winter. A tester has been promised, however, to begin work March 1.

In the meantime the original association was accepting renewals of membership for second-year work, but so many new applications were received that it was decided to split up and reorganize at the end of the season on the basis of two groups. Both of these groups now have a full membership and they have held meetings for the election of directors and officers. On March 1, therefore, four complete cow testing associations will be in operation in this prosperous northern Michigan county.

If further proof were needed that "prosperity follows the dairy cow," it could be pointed out that Missaukee county farmers built twenty dairy barns last summer, and, in order to blow out the stumps and stones from cultivated fields, they have, during the past month, paid cash for 25,000 pounds of war salvage explosive.—H. L. B.

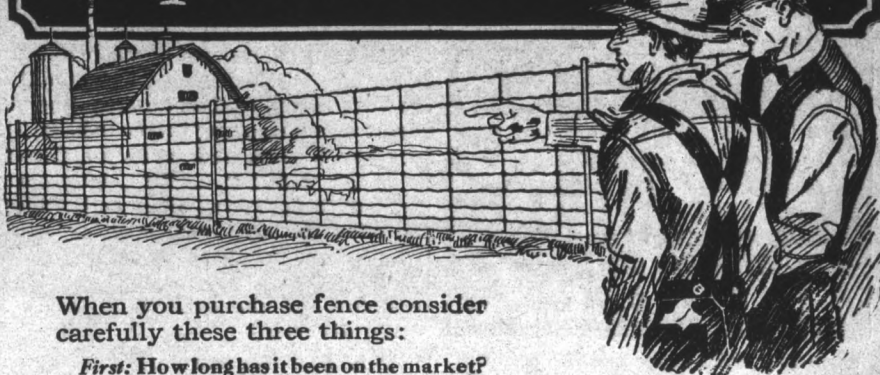
THESE MEN CONTINUE TO TEST.

COW Testing Association No. 2, of Genesee county, has just completed its fourth year of testing work. Nearly every member is continuing to test, among which are five of the original members, all of which have good herds, as shown by the number of times their name appears as owner of best producers in the monthly cow testing association reports.

One of these herds of thirteen Registered Holsteins, owned by Reid & Torrey, of Flint, Michigan, was high herd in the association for milk and butter-fat production this past year. Average production per cow was 11,170 pounds of milk, and 333.4 pounds of fat. One of the cows in this herd, Clarkland Clothilde Ormsby, was high cow in milk and butter-fat production in the association this past year, producing 549.5 pounds of fat from 16,453 pounds of milk. One of the cows in this herd was also high cow in milk and butter-fat production in this association in 1925.—A. Reynolds, Tester.

Seventy-five Holstein breeders attended the annual meeting of the Washtenaw county association, held in Ann Arbor.

Buy fence on its past record



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Second: What is its past record?
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THE DETROIT MILK ORDINANCE.

THE Detroit City Council has recently adopted a new milk ordinance similar to the Chicago ordinance which has been in effect now nearly a year. This new milk ordinance provides that milk or cream sold in Detroit after January 1, 1928, shall be produced by herds tested under state and federal supervision. The section of the ordinance covering this point was passed by the council on December 8, 1926, and reads as follows:

"After January 1, 1928, no person, firm or corporation shall sell, expose or offer for sale, any milk or cream except that produced by cattle located in herds under federal and state supervision for the tuberculin test and other diseases."

This new ordinance is in line with modern ideas of a safe milk supply and is being taken up rapidly throughout the country. The Bureau of Dairy Industry at Washington reports a recent study of milk ordinances of 250 cities throughout the United States. The report shows that in forty-one cities of over 100,000 population, nine had ordinances requiring that all milk be produced by tested herds, regardless of the pasteurization requirements. In 155 cities of from 10,000 to 100,000 population, forty-five required all herds supplying milk to be tested, and in fifty-four cities of less than 10,000, fifteen had the same requirements. Sixty-nine out of 250 cities studied, or 27.6 per cent, had ordinances requiring the test of all herds from which milk could be sold.

This ordinance is far reaching in its effect and we are greatly pleased that it was not made effective at an earlier date. Detroit is the fourth city in the United States in size, and reaches out many miles to the north, west and south for its daily milk supply. The shipping stations where the milk is gathered for shipment by truck, inter-urban and rail lines are located in many counties and several of these have not had the county-wide tuberculin test. The principal sources of supply not yet tested include Oakland, Macomb, Lapeer, St. Clair, Sanilac, Lenawee and Tuscola counties, all of which have approved the area method of testing. These counties include upwards of 300,000 cattle and it is quite obvious that the limited force of inspectors cannot reach them all by the end of the year. These are all new counties and work is already under way in twenty-one counties, all of which must be taken care of in the meantime. The only way to meet the situation, unless the force of inspectors is considerably augmented, will be to test the herds from which milk is being sent to Detroit, and to follow with the completion of the counties later on as rapidly as possible. This will cost more, of course, but is the only plan by which the market may be saved for the herd owners, and by which the city of Detroit may receive its regular daily milk supply without considerable confusion to producers and distributors alike.

DEVELOPING THE DAIRY HEIFER.

THE age at which the heifer should be bred for the first time, varies in different breeds, according to size and development, from thirteen to twenty-one months. The smaller breeds, such as the Jerseys and Guernseys, are ready from the thirteenth to the seventeenth month, while the large breeds, such as the Holsteins and Ayrshires, are better not bred until the seventeenth to the twenty-first month. There is nothing gained by pushing a heifer too fast, a sufficient time for development and growth is far better.

There is a difference of opinion between dairymen as to just how long the first lactation period of a heifer should be continued for her best development as a dairy cow. Some farm-

ers insist that the heifer should not be milked longer than eight months, and then given a long period of rest and time for development, while others believe she should be milked ten or eleven months and allowed three or four months to rest. In my own experience the latter method is preferable. When the lactation period begins, the growth of the heifer is checked temporarily, and if a second lactation period is started too quickly she will possibly become stunted in her development and growth. Ordinarily the growth and development of a heifer will start again as soon as her first lactation period is ended. The advantage in continuing her milking period from ten to eleven months, is that it tends to have some influence on her future lactation periods. If the first lactation period is made short, it will have a tendency to do the same on the second period and so on, while to get the largest production from a dairy cow her lactation periods should be well extended and uniformly long.

The fall of the year is the best time for her to freshen first. The winter ration will be helpful to her develop-



Miss Mary Williams, of Middleville, introducing Two of Her Father's Registered Sheep.

ment and she will do well on this at the beginning of her lactation period. Fresh grass will become available just in time to carry her along and serve as a change in feeds at the time when it will be most effective in keeping up and increasing her flow of milk.

The milker can not be too careful and gentle with a dairy heifer in the first few milking operations. If she has been properly trained and her udder handled, there will be no trouble, but a naturally kind and gentle heifer can easily and quickly be made into a kicking cow by rough and unkind treatment. During the first lactation period is the time when every effort should be made to develop her into a good dairy cow.

The feeding and rations for the dairy heifer should be given careful attention. By watching the results the rations may be varied so as to improve her milk yield. Careful testing and an accurate record is necessary in determining her value. It sometimes happens that a heifer during her first lactation period will be very unpromising, but will make wonderful improvement on her second and on her third period will prove to be a dairy animal of great value. Ordinarily she will not reach her full capacity in production until the fifth year, and for this reason heifers coming from high-record stock should not be judged too soon.—V. M. Couch.

DAIRYING AND COMMUNITY PROSPERITY.

PROFESSOR O. E. REED, dairy department, Michigan State College, gave a talk at a recent meeting of the Fellowship Club at Schoolcraft. This club is an organization of the business men of Schoolcraft and the farmers of that community. The club was organized for the promotion of a better community spirit. Professor Reed told the members of the Fellowship Club the relation that the dairy industry may have to the prosperity of a community.

More than 400 fowls were exhibited at the Livingston County Poultry Show.



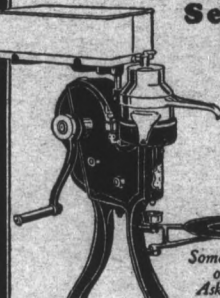
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U. S. Cream Separators

are manufactured in seven sizes motor or engine attachments for the larger sizes. Prompt shipment can be made of complete separators or repair parts for any style.



Some desirable territories are open—perhaps yours. Ask us for terms to agents.

Vermont Machine Co. Inc.
BELLFLOW FALLS, VERMONT, U.S.A.

Dairymen

YOU can now get a Hinman Milker in a PORTABLE GAS ENGINE UNIT. Power and milk—complete in one compact, simple little machine.

Uses the same Hinman System—proved right by 19 years of success in every good dairy county!

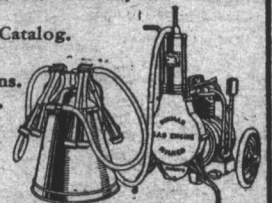
Real simplicity that does better work and costs less to buy and operate. Milks three hours on one quart of gas. Takes little space. Rolls easily anywhere.

It's a little beauty you want to know! Hundreds already in use. See one! Get facts about one of the greatest time, hard-work, and money savers that ever worked for a dairyman.

HINMAN MILKING MACHINE CO.
6th St. Oneida, N.Y.

Write for Catalog.

Ask questions. Write today.



HINMAN
PORTABLE GAS ENGINE • STANDARD • PORTABLE ELECTRIC
MILKERS

Try a Michigan Farmer Liner



A NATCO TILE SILO at the Price of Wood

Build for a life time. Flint-like everlasting Natco Tile, reinforced with ribs of steel. Costs you practically the same as other silos that need repairs, replacement. Hollow tile insulates, keeps out heat, frost, moisture. Silage stays sweet, nourishing. Learn more about this rot-proof, wind-proof, fire-proof permanent farm improvement—send for FREE booklet.

NATIONAL FIRE PROOFING COMPANY
Fulton Building Pittsburgh, Pa.

NATCO
SILOS

BREEDERS' DIRECTORY

CATTLE

FOR SALE-REGISTERED GUERNSEY HEIFERS

coming 2 yrs. old. Bred. Dams have C. T. A. Record. LEONARD HASSLER, Sandusky, Mich., R. 2.

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 C. O. D. Write L. Terwilliger, Wauwatosa, Wis.

Guernsey Bull For Service Special terms and prices on A. R. O. Stock. J. M. WILLIAMS, No. Adams, Mich.

Frank Renshaw Dispersal
PONTIAC, MICH.

Wednesday, March 2

At the farm, 4 miles East on Auburn Ave., to Dodge Road, then 1½ miles north on Dodge Road.

45 REGISTERED HOLSTEIN FRIESIAN CATTLE 45 Farm Implements and 6 Heavy Draft Horses sold at 9 A. M. Cattle at 1 P. M. FREE LUNCH AT NOON

This sale includes the herd sire, a 36-lb. son of the 1,000-lb. Bull, Ollie Pontiac Segis Piebe, a son of Piebe Laura Ollie Homestead King, one of the greatest show bulls ever developed. Is a very straight individual with the best of breeding, and bred in show ring lines.

There will be a number of fresh cows and heavy springers bred along the lines of such noted sires as King of the Pontiacs, Maple Crest Korndyke Hengerveld, and others of equal breeding.

For Catalogs Write
GUY E. DODGE, Clio, Mich., Mgr.

HOLSTEIN BULLS

Offered by Michigan State Herds

Sons of Marathon Bess Burke 32d, Senior Sire in the heavy producing herd at the Traverse City State Hospital. This entire herd of 98 cows and heifers of milking age averaged over 13,000 lbs. milk during the past year.

Marathon Bess Burke 32d is a son of the famous Robes 6th. His calves from Traverse-bred dams will insure production in your future herd. Send for pedigrees.

"MICHIGAN STATE HERDS"



Bureau of
Animal Industry
Dept. C
Lansing, Michigan

HOLSTEINS
for Profit

Holsteins are profitable because they lead in milk and butterfat production, calve regularly, adapt themselves quickly to all climates and fit profitably into the farming program.

Write for literature
Extension Service
The HOLSTEIN-FRIESIAN
ASSOCIATION of AMERICA
230 East Ohio Street Chicago, Illinois

SERVICEABLE AGE

REGISTERED HOLSTEIN 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 Alcarra Prilly, an undefeated Show bull with 70 A. R. daughters.

Red Rose Farms Dairy

Northville, Michigan

Telephone: 344

Reference: Northville State Savings Bank

Meitz Dispersal

Wednesday, March 9th, 1927

At the farm, 4 miles east and 5 miles west of Mt. Clemens, on Canal Road.

20 Head of Registered Holstein Cattle

Herd sire is a real show bull, great grandson of King of the Pontiacs, a 30-lb. sire, a second prize winner at Michigan State Fair in 1925. His dam won first in 1923. A real show cow. Herd records, butter from 19 to 31 lbs. in seven days. C. T. A. Records in 365 days. 875 lbs. of butter, and nearly 10,000 pounds milk in 365 days. High 4-yr. old cow in Macomb county last year. All T. B. tested. Sold under 60 day test. For catalog write to

OTTO MEITZ, R. 6, Mt. Clemens, Mich.
Farm implements and horses will be sold first.

DAUGHTER of King of Pontiacs, also daughter of forty-two-lb. sire, both ready to freshen. F. LANGE, Sebawaing, Mich.

IONIA CATTLE MEN ASK FOR TEST.

TWO hundred and fifty owners of pure-bred cattle of Ionia county went before the board of supervisors of that county and asked that an appropriation should be made to provide funds for a bovine tuberculosis eradication campaign. The supervisors voted to place the question on the ballot to be voted upon in April.

BANK OFFERS PRIZES.

THE Lake City State Bank has announced that they will give prizes amounting to \$100 for the three best fields of alfalfa seeded in Missaukee county in 1927. The prizes will be awarded in June, 1928. The fields must contain at least five acres to be eligible for a prize.

LENAWEE STARTS SECOND YEAR'S TESTING.

WAYNE CARPENTER, of Clinton, Michigan, was elected president of the Lenawee County Cow Testing Association at the annual meeting recently held in the court house, Adrian, Michigan. Other officers elected were: F. W. Judson, vice-president; Robert Curtis, secretary-treasurer, and Messrs. Harwood and Faler, directors. Willard, Syers, the cow tester, was hired for another year's work.

REMARKABLE TWO-YEAR-OLD HEIFER.

A TWO-YEAR-OLD pure-bred Holstein heifer owned by a Livingston county farmer, recently completed a year's production under the supervision of a cow testing association. The heifer produced 575.2 pounds of butter-fat, and 16,891 pounds of milk. This production was the highest for any animal test in the association.

Barry county live stock men are now receiving the ten cents per hundred weight premium for hogs sold from that county. This premium is one of the many reasons for tuberculosis eradication campaigns.

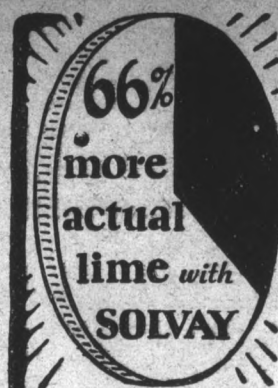
Winter-killing causes as heavy losses to the wheat crop as all the wheat diseases combined.

Veterinary.

CONDUCTED BY DR. S. BURROWS

Lung Worms.—I have a bunch of pigs, and nearly all of them cough more or less. I know they are not troubled with intestinal worms, for I have given them worm medicine since they were little pigs. I was told that they have lung worms and that caused them to cough. G. G.—Vermineous bronchitis is very common in swine in the United States; however, the infestation is only rarely of sufficient extent to produce serious damage. Metastrongylus apri is the causative parasite of porcine pulmonary strongilis. This disease is difficult to treat because of the location of the parasites and the difficulty of controlling swine. Medicated vapors may be used, providing the swine can be confined in an airtight room. You had better clean and disinfect their pen, also burn the refuse of pen, or lime it thoroughly.

Horse Has Soft Swelling on Neck.—I have a seven-year-old gelding that has had a soft lump as big as a four-quart kettle just back of collar and on top of neck or shoulders. It has been there over two months, does not seem sore, or bother in working. What is your advice regarding treatment and continued use of the horse? C. M.—Open the swelling at its lowest point and find out the nature of its contents. If it contains pus, or liquid of any kind, it should be syringed with a two per cent solution of carbolic acid or some other good antiseptic. Application of liniment of a blister, a little later, would help in bringing the part back to normal. Regarding work, if the collar does not press on the swelling, or appear to interfere with it in any way, there is no reason why it cannot be worked.

Get the most
for your
limestone
dollar

Here's how—when you buy lime you are really buying lime oxide (its active chemical property), and this is what you get:

For \$125.00 you can buy, on an average, delivered to your station,
25 tons Solvay Pulverized Limestone containing 12½ tons of lime oxide, or
9 tons Burnt Lime containing 7½ tons lime oxide, or
10 tons Hydrated Lime containing 7½ tons lime oxide.

You obtain 66% more actual lime for your money when you buy Solvay Pulverized Limestone.

Spread Solvay this year—note the bumper crops—and you'll spread Solvay every year!

Write for booklet.

SOLVAY SALES CORPORATION
DETROIT, MICH.

Sold by

LOCAL DEALERS

AT THE TOP

A Colantha cow from our herd was high butter-fat cow in Cow Testing Association work in Michigan in 1925. This herd of cows averaged 11,988 lbs. milk and 588 lbs. butter in 1925.

Typey Colantha Bulls from cows standing high in Official and Cow Testing work insure unusual production. Ask us about them.

McPHERSON FARM CO.,
Howell, Michigan

HEREFORD STEERS

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.

FLYING FOX and Interested Prince Jerseys. Twenty females between ages of three months and ten years. Sixty head to select from. Also a few good bulls. L. RUHSTORFER & SON, Kawkawlin, Mich.

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.

Choice Jersey Bulls ready for service, and bull calves, for sale from R. of M. dams accredited herd. SMITH & PARKER, Howell, Mich.

FOR SALE PURE-BRED POLLED SHORTHORNS

High class cows and heifers at reasonable prices. Some show ring prospects. 15 years select breeding. You will be suited.

Branch Co. Farm, Coldwater, Mich.
Geo. E. BURDICK, Mgr.

THE STANLEY J. GARDNER HERD, Crosswell, Mich.

"MILKING SHORTHORNS"

Why buy without milk records? We don't keep our cows that way. If you want a real bull calf that will breed more milk into your herd and still retain your good fleshing qualities, call on us. Also females. Circulars and photos on request.

SHORTHORNS

For sale, several good cows with calves at foot, and bred again. Also bulls and heifers sired by Maxwaton 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.

MILKING SHORTHORN BULL, born in January. 12 of his nearest grand dams have an average record of 10,751 lbs. IRVIN DOAN & SONS, Crosswell, Mich.

MILKING SHORTHORNS, White Bull 12 months old, from R. of M. Dam, also younger red ones. ROBT. DOUGLAS, Crosswell, Mich.

Shorthorns Best of quality and breeding. Bulls cows and heifers for sale. BIDWELL STOCK FARM, Box D, Tecumseh, Mich.

For Sale Three registered Shorthorn cows with heifer calves by side. T. B. tested. WESLEY DeGEAR, Morley, Mich., R. No. 1.

FOR SALE—registered Polled Shorthorns, bulls and heifer calves, one horned bull calf. Accredited herd. PAUL QUACK, Sault Ste. Marie, Mich.

HOGS

DUROCS BRED SOWS AND GILTS

SERVICE BOARS

Cholera immune, popular blood lines, typy. LAKEFIELD FARMS, Clarkston, Mich.

HAMPSHIRE BRED SOW SALE

MONDAY, MARCH 7th

at 1 o'clock, to be held at our farm, 1 mile North, 3-4 West of Henderson, Mich.

Offering consists of 25 head of tried sows, spring gilts, open fall gilts, also two yearling boars, two spring and two fall boars, of real Hampshire type.

Offering sired by and bred to such outstanding boars as DeKalb's King 210-150321, and Duke Defender 166461. The latter is the best boar we ever owned. Our Show herd won nearly every premium offered at six Michigan fairs during 1926, and we are selling several of them in this sale. This sale is of mostly young stock and as fine a bunch as we ever had, and the most up-to-date blood lines as the breed offers. All cholera immune. All hogs to be shipped will be crated and delivered to express station.

For further information and catalog write.

J. P. SPITLER & SON, J. E. RUPPERT, Auct.

Sale will be held inside.

BERKSHIRE SOWS, registered, bred for April and May farrow. Write for prices of TALCOA FARM, R. F. D. No. 7, Lansing, Mich.

DUROC JERSEY Gilts bred for March and April farrow. NORRIS STOCK FARMS, Cassovia, Mich.

AUCTION

65 head Spotted Poland China bred sows and gilts, March 15, 1927. Bred to Monarch, big prize winner at World's Fair, and Indiana State Fair against heavy competition. Cholera immune. Send for catalog. OSCAR VOELKER, Pigeon, Mich.

BIG TYPE POLAND CHINAS. Bred gilts, big, smooth, stretchy. We like the good ones and believe you do. Write us. WESLEY HILE, Ionia, Mich.

BIG TYPE CHESTER WHITE bred gilts for early spring farrow. Best blood lines. Reasonable prices. KNOX FARMS, Portland, Mich.

O.I.C. HOGS on time Write for HogBook Originators and most extensive breeders. THE L. B. SILVER CO., Box 196, Salem, Ohio

O. I. C. GILTS Bred for April Farrow. H. W. MANN, Dansville, Mich.

O. I. C's. BRED GILTS, ALSO FALL PIGS. MILO H. PETERSON & SON, Ionia, Mich., R. 2.

LARGE TYPE P. C. Bred gilts all sold. Fall pigs, inspection invited. Expenses paid if you are not satisfied. W. E. LIVINGSTONE, Parma, Mich.

LARGE TYPE POLAND CHINAS Bred gilts, large size and good breeding. 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.

SHEEP

HIGH CLASS Registered yearling Shropshire ewes, bred, also registered ewe lambs. Flock established 1890. C. LEMEN & SONS, Dexter, Mich.

Registered Delaine Ewes

fine ones, bred. F. H. RUSSELL, Wakeman, Ohio.

HORSES

FOR SALE 1 Pure-bred Percheron mare coming three. 1 pure-bred stallion coming two years old. Also some registered Shorthorn cows. 5 two-year-old heifers and some nice yearling bulls; all are milking strain. AUGUST WALDO, Morley, Mich., R. No. 3.

REGISTERED PERCHERON STALLION for sale, cheap or trade for other stock. C. L. PALMER, Cheaning, Mich., R. 2.

Black Percheron Stallion

weight 1900 lbs. Stanley Purcell, Newaygo, Mich.



THE LATEST MARKET REPORT



GRAIN QUOTATIONS.

Monday, February 21.

Wheat.

Detroit.—No. 2 red at \$1.36; No. 2 white \$1.37; No. 2 mixed \$1.35.
Chicago.—May \$1.40½; July \$1.33½; September \$1.31½.
Toledo.—Wheat, No. 2 red at \$1.36 @1.37.

Corn.

Detroit.—No. 2 yellow 75c; No. 3 yellow 76c; No. 4 yellow 73c; No. 5 yellow 78c.
Chicago.—May at 78½c; July 82½c; September 85½c.

Oats.

Detroit.—No. 2 Michigan at 50c; No. 3, 47c.
Chicago.—May at 45½c; July 46c; September 44½c.

Rye.

Detroit.—No. 2, \$1.06.
Chicago.—May \$1.06½; July \$1.04½; September 99½c.
Toledo.—Rye \$1.06.

Beans.

Detroit.—Immediate and prompt shipment at \$4.40@4.45 f. o. b. shipping points.

Chicago.—Spot Navy Michigan fancy hand-picked, in sacks \$4.90; dark red kidneys \$5.75 to wholesalers.

New York.—Pea domestic \$5@5.50; red kidneys \$6.75@7.50 to wholesalers.

Barley.

Detroit.—Malting 83c; feeding 71c.

Seeds.

Detroit.—Cash red clover at \$24.50; cash alsike \$22.60; timothy, old \$2.60; new \$2.80.

Hay.

Detroit.—No. 1 timothy at \$18@19; standard \$17@18; No. 1 light clover mixed \$17@18; No. 2 timothy \$16@17; No. 1 clover \$18@19; oat straw \$13@14; rye straw \$14@15.

Feeds.

Detroit.—Winter wheat bran at \$37; spring wheat bran at \$36; standard middlings at \$37; fancy middlings at \$41; cracked corn at \$34; coarse corn meal \$32; chop \$35 per ton in carlots.

WHEAT.

Wheat prices have kept within an extremely narrow range in the last ten days, but the undertone is unsettled. Cash offerings have been equal to the demand and sentiment has been mixed by uncertainty over the passage of farm relief legislation, and its possible market effect until the machinery for putting it into operation has been set up.

RYE.

Rye has been relatively stubborn in the face of the easy tone in wheat. Stocks remain large in this country, but reports continue to come forward of large quantities needed in Europe, and fair sales are being reported by the seaboard from day to day.

CORN.

Corn prices have developed weakness again in the last few days. Demand from eastern dairy districts and from the cotton belt continues disap-

pointing. The large visible supply is still growing. Export demand has not reached important proportions. In spite of the long period of drouth in Argentina, official reports point to another large crop. The acreage is estimated to be slightly larger than last year. With large quantities of Argentine corn afloat for Europe, the chances of substantial exports from the U. S. are diminishing. Argentine prices, of course, are below our markets.

OATS.

The oats market has been weak along with other grains. Receipts have increased, and little or no progress has been made in merchandising the liberal visible supply. Demand for high-grade oats is satisfactory, but interest in low grades is lifeless.

EGGS.

Egg markets have lost additional ground during the past week, declining to the lowest level at the corresponding time in at least nine years. Prices are already close to the level at which buying for storage was expected to take place, so that additional declines probably will be slight. On the other hand, no important rise is to be expected unless a turn to severe weather should cause temporary strength.

Chicago.—Eggs, fresh firsts at 25@25½c; ordinary firsts 24c; miscellaneous 25c; dirties 23½c; checks at 23c. Live poultry, hens 21@25c; springers 27c; roosters 19c; ducks 32c; geese 22@23c; turkeys 30c.

Detroit.—Eggs, fresh candled and graded 26@26½c. Live poultry, heavy springers 27c; light springers at 24c; heavy hens 29c; light hens 24c; roosters 19c; geese 25c; ducks 35c; turkeys 42c pound.

BUTTER.

Butter prices were strong during the past week, advancing well up toward the high points of the winter. The reduction in stocks during January was heavier than usual. Wholesale prices are from five to seven cents higher

than a year ago, and probably discount most of the strength in basic conditions. Production is increasing from week to week, although in a very small way, and no important gains in the make are to be expected for two months yet.

Prices on 92-score creamery were: Chicago 52½c; New York 53c; Detroit, fresh creamery in tubs 49½@51c.

POTATOES.

The United States Department of Agriculture estimated holdings of merchantable potatoes in the hands of the growers and local dealers in thirty-five late potato states on January 1, 1927, at 82,389,000 bushels, compared with 70,800,000 bushels a year before, and 119,223,000 bushels two years previous. With the exception of 1926, stocks this year were the smallest since January, 1920. Carlot shipment of potatoes have increased recently, and prices declined, but the market is turning firm again with northern sacked round whites quoted at \$1.90@2.05 per hundred pounds at Chicago.

SEEDS.

A firm tone continued in seed markets during the past week, with prices of red clover and alsike at the highest point of the season. Alfalfa seed prices are unchanged, with a small amount of export demand reported. The timothy seed market continues dull.

FEEDS.

The feed markets are practically unchanged from a week ago, although a few small advances were reported in some markets. Mild weather has tended to check the demand, and dealers from this time on will not be inclined to carry larger stocks than necessary.

WOOL.

The wool market has a strong tone, but with small price changes. Domestic goods trade is not especially brisk, so that manufacturers are not in a great hurry to accumulate raw material. Foreign markets are strong, with American operators buying. The big feature recently has been the renewal of contracting on a broad scale in the west, with indications that 35,000,000 pounds are under contract by this time. Prices run mostly 30 to 33 cents to the grower.

BEANS.

The bean market is highly irregular with C. H. P. whites quoted all the way from \$4.50@4.75 per 100 pounds, f. o. b. Michigan shipping points. Part of this variation is due to differences in quality. Demand has turned very quiet in the last few days and prices have eased off to some extent. The disappointing quality of the crop is said to have diverted demand from beans to other sources this year.

DETROIT CITY MARKET.

Prices were: Apples 50c@2.50 bu; beets 75c@1 bu; cabbage 60@85c a bu; red cabbage \$2.25@3 bu; local celery 25@75c dozen; carrots 75@90c a bu; dry onions \$1.25@1.50 bu; root parsley 75c@1.25 bu; potatoes 60c@1.25 bu; turnips \$1@1.25 bu; Hubbard squash \$2@2.50 bu; pears 75c@1.50 bu; leeks 75c@1 dozen bunches; parsnips \$1.50@2 bu; vegetable oysters 75c@1 dozen bunches; root celery \$1.50@2.50 bu; eggs, retail 40@50c; hens, wholesale 23@31c; retail 32@34c; springers, wholesale at 27@29c; retail 30@32c; Leghorn springers, wholesale 22@25c; veal 20@22c; hogs, dressed 17@19c.

GRAND RAPIDS.

Potatoes 90c@1 bu; onions \$1@1.15 bu; cabbage, white 85@90c bu; red \$1.75 bu; parsnips \$1 bu; carrots and turnips 75c bu; leaf lettuce 8@10c lb; radishes 50@60c dozen bunches; apples, Spys \$1.75@3 bu; Wageners \$1@1.25 bu; Baldwins 50@75c per bu; heavy hens 23@25c; light 18@20c; eggs 29c; butter-fat 53c; beans \$4 per cwt; wheat \$1.17 bu; rye 82c bu; pork 14@16c; beef 6@12c; veal 10@17c; lamb 20@22c; mutton 12@14c.

COMING LIVE STOCK SALES.

Holsteins.

March 2—Frank Renshaw, Pontiac, Mich., (Dispersal), Guy E. Dodge, manager.

March 10—Bert J. Morton, Fenton, (Dispersal), Guy E. Dodge, Mgr.

March 31—Walter T. Hill, Davison, Dispersal, Guy E. Dodge, Mgr.

HERE'S A "SURPRISE"

A new low price, high quality, orchard sprayer for the small grower.
This new spray pump is a little wonder—nothing like it ever designed before. Everything easy to "Get At"—nothing that any farm hand can not understand. Capacity for one lead of hose at 300 lbs. pressure. 2 H. P. Engine. 100 gal. tank. Sold complete with truck or complete on bed above truck. Can be bought without engine if desired. The present low price guaranteed only to April 1. Mail a card today for full information on the Surprise sprayer.

"FRIEND" MFG. CO.
142 EAST AVE. GASPOT, N. Y.
"A complete line of Potato Sprayers"



Fillets, no heads or tails, Jersey caught, packed same day in brine made from clear sparkling sea water. Will keep indefinitely.

20 pound (net) pail \$5.00 Delivered

Sent anywhere P. P. C. O. D. No extra charges

These fish are large, fat, and absolutely pure, packed without chemicals of any kind to bleach or preserve. JUST NATURE'S PURE CLEAN SALT. You will appreciate this QUALITY in your pantry.

WHITE FISH CO. 222 North Broad St. Trenton, N. J.

FISH

Guaranteed Finest Quality and safe delivery via Express. 100 lbs. Winter-caught Frozen Bayfish, Suckers or Mullet, Large, \$5.85; Pickrel, Round, \$7.35; headless, dressed, \$9.35; Large Perch, \$6.85; Yellow or Walleyed Pike, \$10.35; Salmon, \$13.35; Small dressed Whitefish, \$10.35; Large, dressed, \$14.35; Whiting or Sea Pike, \$1.85; Flounders, \$9.35. Less than 100-lb. lots ½c per lb. higher. Remit with order. Write for complete price list. Fresh, Smoked, Salted and Spiced Fish.

JOHNSON FISH CO., GREEN BAY, WIS.

Canvas Covers

Truck and Stack Covers made to fit your need. Sample on request.

Tents, Awnings, Camp Supplies, Covers

FOX TEXTILE CO.

603W Michigan Ave. Ypsilanti, Mich.



NEWTON'S Compound

Heaves, Coughs, Conditions, Worms. Most for cost. Two cans satisfactory for Heaves or money back, \$1.25 per can. Dealers or by mail.

The Newton Remedy Co. Toledo, Ohio.



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
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.

Live Stock Market Service

Tuesday, February 22.

DETROIT.

Cattle.

Receipts 277.
Good to choice yearlings dry-fed \$ 9.75@10.25
Best heavy steers, dry-fed 8.50@ 9.50
Handy weight butchers ... 7.25@ 7.75
Mixed steers and heifers 6.00@ 7.00
Handy light butchers ... 6.00@ 6.50
Light butchers 5.25@ 5.50
Best cows 5.50@ 6.50
Butcher cows 4.75@ 5.50
Cutters 4.25@ 4.75
Canners 3.50@ 4.25
Choice light bulls 5.75@ 6.00
Bologna bulls 5.50@ 6.50
Stock bulls 5.00@ 6.00
Feeders 6.00@ 7.25
Stockers 5.50@ 6.50
Milkers and springers...\$55.00@ 90.00

Calves.

Receipts 500. Market 50c higher.
Best \$16.50@17.00
Others 4.50@16.00

Sheep and Lambs.

Receipts 1,968. Market steady.
Best grades \$13.50@13.75
Fair lambs 11.00@12.25
Light to common lambs... 6.00@10.25
Fair to good sheep..... 5.00@ 8.00
Culls and common 2.50@ 4.00

Hogs.

Receipts 1,754. Market slow and 15c lower.
Mixed \$ 12.00
Roughs 10.35
Pigs and yorkers 12.15
Stags 8.50
Extreme heavies 11.00@11.50

CHICAGO.

Hogs.

Receipts 40,000. Light hogs mostly 15@25c lower; butchers 10@15c lower than Monday's average; weighty averaging above 250 lbs. slow at decline; tops \$11.90 paid for 150-lb. average; bulk of good 140-200 lbs. \$11.60@11.85; 200-250-lb. butchers \$11.45@11.60; few sales of 270-330-lb. butchers at \$11.40; odd lots down to \$11.35; big packers inactive, market lower; most packing sows \$10.15@10.40; packers up to \$11.85.

Cattle.

Receipts 10,000. Fat steers steady to 25c higher, others steady to strong; best heavy steers \$12.90; several loads at \$12@12.75; packers and feeders are slow and steady at \$7.25@8.50 mostly; bulk of light steers \$9@11; most medium bulls \$6.25; heavy beef bulls active; fat held at \$6.50@7, shippers up to \$15; choice calf packers at \$11.50@12.50.

Sheep and Lambs.

Receipts 17,000. The market on fat lambs opening fairly active, around 15c higher than Monday's average; good lambs \$13.50@13.90, mostly around \$14; market on desirable lambs \$12.25@13.75; few extreme weight at \$12.25@12.50; culls \$10@11; sheep are opening strong to 75c higher; choice medium weight fat ewes at \$9; good ewes \$7.75@9; shipping lambs firm; good offering at \$12.50@13; most finished were sold.

BUFFALO.

Hogs.

Receipts 15,000. Market is 15@25c lower. Few pigs and light lights at \$13; bulk 200 lbs. down \$12.75; few 210-250 lbs. at \$12.35@12.60; packing sows \$10.50@11.25.

Cattle.

Receipts 50. Very little here, prices steady.

Calves.

Receipts 250. Market steady. Tops \$17, culls and common \$13 down.

Sheep and Lambs.

Receipts 800. Market active, and 15c higher; fat lambs \$13.90; culls and common \$11.50@12.

LAMB RECEIPTS ARE MODERATE.

RECEIPTS of lambs and sheep at seven leading markets in the last month have been considerably lighter than a year ago. Prices have made additional progress on the advance, which seems to be in prospect, the Chicago top reaching \$13.90, the highest since late November. Colorado

placed fewer lambs on feed than last year, but failed to market the usual number during January and early February, so that the numbers remaining are not so far below the corresponding period last year. Average prices are about \$1 lower than the level which prevailed from March to May, inclusive, in 1926, so that even with a small decline in arrivals, some further advance in values appears logical.

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 5 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 discontinuance 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	\$2.40	25.....\$2.08	\$8.32
11......88	2.64	27......216	8.68
12......96	2.88	28......224	8.96
13.....1.04	3.12	29......232	9.28
14.....1.12	3.36	30......240	9.60
15.....1.20	3.60	31......248	9.92
16.....1.28	3.84	32......256	10.24
17.....1.36	4.08	33......264	10.56
18.....1.44	4.32	34......272	10.88
19.....1.52	4.56	35......280	11.20
20.....1.60	4.80	36......288	11.52
21.....1.68	5.04	37......296	11.84
22.....1.76	5.28	38......304	12.16
23.....1.84	5.52	39......312	12.48
24.....1.92	5.76	40......320	12.80
25.....2.00	6.00	41......328	13.12

REAL ESTATE

STROUT'S SPRING FARM CATALOG JUST OUT! 126 big illustrated pages crammed with unusual bargains from many states. Money-making equipped dairy, poultry, fruit farms; grain, general and truck farms; roadside businesses, village places, summer homes on mountain, lake and river. There's a beauty on pg. 124 of 94 acres close in, borders river, nicely laid out, dandy 8-room house, numerous bldgs.; ready to make money with 3 horses, 6 cows, young stock, sow, poultry, great lot machinery and crops included and price only \$5,000 with \$1,000 cash. One Strout buyer writes: "I'd rather have this than I paid would not buy my farm today, after living on it six months." There's a bargain for you, too, in this handsome, big catalog. Write today, at once, for your free copy. Strout Agency, 205-BC Kresge Bldg., Detroit, Mich.

FARMING UNDER THE MOST FAVORABLE CONDITIONS—where winter never comes, where life is worth living, with fruits, sunshine and flowers only found in California, making every day a joy. Vegetables of some kind grown every month in the year. No cold or excessive heat to interfere with the growth of your stock in fattening season. Fair buildings, plenty of water for irrigation at all seasons; pure, soft, domestic water, near good town with schools, churches and all modern conveniences. Part in alfalfa, fruits, etc., balance for double crop cultivation. 40 acres at a sacrifice—money-maker from start. On terms that you can handle if you can land on ranch with \$3,000. Address Herman Janss, 219 H. W. Hellman Bldg., Los Angeles, Calif.

FOR SALE—Excellent dairy farm in the heart of one of the best milk-producing sections of central New York: 376 acres, with 150 acres tillable; 20 acres woodland, balance grazing. Farm will carry 50 head dairy cattle. All equipped with ample buildings. Near state road, village, schools and churches. Best of markets. Price \$20 per acre, including buildings, which could not be replaced for the price of the farm. Easy terms, with interest at 5%. Full information upon request. Federal Land Bank, Springfield, Massachusetts.

COME TO CALIFORNIA—settle in Stanislaus County—an Empire of Natural Wealth, where the land owns the water and power. Abundance of water for irrigation and cheap electricity right on your farm—all year crops; diversified farming close to good markets; wonderful climate; paved roads; good schools; land priced low. Write for Free Booklet. Dept. B, Stanislaus County Development Board, (County Chamber of Commerce), Modesto, Calif.

FOR SALE—200-acre stock farm near Jackson on state road, near school and market, perfectly level, large basement barn, large house, new silo, other buildings, all in good repair. A beautiful farm and one of the best stock and grain farms in Jackson County. Will sell for one-half actual value. Address W. Stinson, 210 S. Wisner St., Jackson, Mich.

240-ACRE FARM belonging to an estate must be sold at once. Good soil and buildings, two silos. Two basement barns. Electric lights. One mile to village high school and station. 90 acres seeded clover and alfalfa. Will sell this \$20,000 farm for \$14,000 rather than rent. \$4,000 down. Write Box 190, Lakeview, Mich.

FOR SALE—55 acres on M-29, 1 1/4 miles from Coldwater. Good land, good buildings, city electricity, exceptional value. Write to Howard Sweezy, Coldwater, Mich.

FRUIT FARM BARGAIN—13 acres, 1,350 fruit and nut trees, also berries, all bearing. H. J. Heard, Crosswell, Mich.

IMPROVED FARMS—resort lots and cottages, lake and river frontage. Some mighty fine bargains. U. G. Reynolds, Gladwin, Mich.

140 ACRES, Central Michigan, sell or trade for sheep, cattle, land, town property. Mattie Baker, Ligonier Ind.

WONDERFUL OPPORTUNITIES—Southern Georgia farm lands. Write for complete information. Chamber of Commerce, Quitman, Ga.

FOR SALE—Forty acres, all stumped and fenced; 2 good wells, fair buildings; 1/2 mile west of Harrisville on M-72. Inquire John Dunn, Harrisville, Mich.

FOR SALE—80 acres stock, grain and fruit farm. Good buildings and soil. G. A. Rouse, Bloomingdale, Mich.

WANTED FARMS

WANT FARM in exchange for hotel near Ford Motor Co. Rouse plant. Also one in exchange for pool room on Grand River Ave. Have buyer for 5 to 30 acres near bus line within 30 miles of Detroit. F. B. Stear, 25 Glenwood, River Rouge, Mich.

FARMS WANTED to buy or exchange within 70 miles from Detroit. Write to Matt Wayunas, 9501 Cardoni Ave., Detroit, Mich.

WANTED—To hear from owner of land for sale for spring delivery. O. Hawley, Baldwin, Wis.

MISCELLANEOUS

AMERICAN CREAM SEPARATOR catalog for 1927 is a valuable book for any dairyman. Tells what a modern cream separator should do; shows by pictures how the American does it. Tells about our fair trial, liberal installment terms and low, attractive cash prices. Write American Separator Co., Box 324, Bainbridge, N. Y.

A FEW "SUCCESSFUL" DEMONSTRATOR INCUBATORS for quick sale at great reduction. 60 to 300 eggs capacity. Good as new. Des Moines Incubator Co., Box 734, Des Moines, Iowa.

REPLACEMENT PARTS—for any make of motor or farm machinery. Machine work of any kind. Models made for any kind of inventions. Art Tool & Die Co., Inc., Larned at Leib St., Detroit, Mich.

WOOL BATTING CUSTOM CARDED from your wool. Mail this clipping to us for full particulars. K. A. Maupin Woolen Mills, Eaton Rapids, Mich.

ALL WOOL KNITTING YARN for sale from manufacturer at great bargain. Samples free. H. A. Bartlett, Harmony, Maine.

MATTRESSES

MATTRESSES made any size, low factory prices. Catalog free. Peoria Bedding Company, Peoria, Ill.

PET STOCK

NOTICE! COON HUNTERS—For sale, my A-No. 1 coon hound, cheap. Will allow trial. B. Keeterson, Sedalia, Ky. B. 204.

PURE-BRED German Police puppies from imported sire, price \$12 and \$15. Pine Hill Farm, Howard City, Mich.

UTILITY FLEMISH GIANT Buck Rabbits 40c lb. C. Galbreath, Hartford, Mich.

COLLIES—stock dogs, beauties. Write for pictures. Cloverleaf Farms, Tiffin, Ohio.

SEEDS AND NURSERY STOCK

TIFTON'S RELIABLE PLANTS. Frost Proof Cabbage, Bermuda onions plants. Varieties: Copenhagen Market, Early Jersey and Charleston Wakefield, Flat Dutch, and Succession. Tomato plants. Varieties: Greater Baltimore, Bonnie Best and Livingston Globe. Prices: Postpaid, 250, \$1.00; 500, \$1.50; 1,000, \$2.50. Express collect: \$1.50, 1,000; 10,000 and over \$1.25. We guarantee to ship size to please you. References: Bradstreet, Catalog of Tifton, and Postmaster. Tifton Plant Co., Tifton, Ga.

REGISTERED and Certified Pickett Yellow Dent Seed Corn, fire-dried on racks, germination guaranteed. Certified and uncertified Wisconsin Six Row Pedigreed Barley. Uncertified Worthy Oats grown from certified seed. Certified Robust Beans. Good seed in scarce. Write for circular. Fairgrove Associated Seed Growers: W. R. Kirk, Secy., Fairgrove, Mich.

MASTODON LARGEST EVERBEARING STRAWBERRY—100 plants, \$3.50; 1000, \$25. Champion Everbearing, 200 plants, \$3.00; 1000, \$8.50; 1000 strawberry plants, \$3.00; Premier, \$4.50; Cooper, \$6.00; 100 Black or Raspberry plants, \$2.00. 1000 Grape plants, \$15; 100, \$3.00. All plants guaranteed. Catalog free. Westhauser's Nurseries, Sawyer, Mich.

BUY YOUR GRIMM ALFALFA SEED direct from the Introducer, and know that your foundation stock is pure, pedigreed seed, bred from the original Grimm strain. Acclimated to severe northwest temperatures since 1857. A. B. Lyman, Introducer, Excelsior, Minn., The Home of Grimm Alfalfa.

REGISTERED AND CERTIFIED SEED CORN—Clement's white cap yellow dent, fire-dried on racks, ear tested and germination 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.

FREE OFFER—Fifty Bermuda Onion Plants or Frostproof Cabbage Plants for few minutes your time. Write for proposition. Bell Plant Company, Cotulla, Texas.

CERTIFIED WOLVERINE OATS, one dollar per bushel. Improved Robust Beans, choice stock, absolutely pure, seven dollars per hundred. Bags are free. Freight prepaid on orders of twenty dollars or over in Michigan. A. B. Cook, Owosso, Mich.

FRUIT TREES and Ornamentals direct to planters. Transportation charges paid. Safe delivery and satisfaction guaranteed. Write for Special Offers and Catalogue. Waynesboro Nurseries, Waynesboro, Virginia.

STRAWBERRY PLANTS—New Mastodon, 15 other standard varieties, raspberries, grape, currant, asparagus, fruit trees. Reduced prices. Catalog free. Sawyer Nurseries, Sawyer, Mich.

HARDY ALFALFA—Clovers and all farm or garden seeds direct from growers at money-saving prices. New seed book. Free! Farmer Seed & Nursery Co., 70 First Avenue, Fairbault, Minn.

NORTHERN MONTANA Non-irrigated Registered, alfalfa, Grimm alfalfa seed, 99% pure, direct from grower, \$30 per 100. Wm. DeMessemaker, Tampico, Mont.

60 BLOOMING GLADIOLI \$1. None alike. 12 Dahlias, \$1.25. Catalogue. A. Sherman, Chicopee Falls, Mass.

CATALOG—64 new fruit varieties. Excellent, hardy, productive. Send farmers' addresses. Get presents. Vikla Nurseries, Lonsdale, Minn.

ASPARAGUS ROOTS—quality and price are right. Price list and culture directions free. J. C. Dunham, Lawton, Mich.

BERRY PLANTS—all varieties. Rock bottom prices. Free list. Get our low price before you buy. Olson Bros. Nursery, Sawyer, Mich.

MARY WASHINGTON ASPARAGUS—1-year-old roots, \$1.50 per 100. Walter Flower Gardens, Route 5, Lansing, Mich.

STRAWBERRY PLANTS, \$3.00, 1,000; raspberries; blackberries; grapevines. Wholesale prices. Catalogue. Cloverleaf Nursery, Three Oaks, Mich.

GENUINE MASTODON EVERBEARING—less than 2c each. Why pay more. Catalog free. E. Libke, New Buffalo, Mich.

CHOICE SEED SPELTZ and Certified Wisconsin Pedigreed Barley, \$1.50 per bushel. Harry Box, Lansing, Mich.

SEED CORN—Pride of the North, yellow, 90-day, early maturing, tests nearly 100%. Address Marion Day, Georgetown, O.

MILLIONS, CABBAGE, ONION and Tomato plants, \$1-1,000. Descriptive circular free. Clark Plant Company, Thomasville, Ga.

TREES, plants, grapevines, shrubs, perennials. Catalog free. Lands Nursery Co., St. Joseph, Mich.

YELLOW DENT SEED CORN—Crib-dried. Guaranteed test. G. W. Needham, Saline, Mich.

CERTIFIED WOLVERINE OATS—Michigan's Leading Variety. C. D. Finkbeiner, Clinton, Mich.

TOBACCO

GUARANTEED HOMESPUN TOBACCO—Chewing or smoking, 5 lbs., \$1.25; ten, \$2; cigars \$2 per 50. Pipe free, pay when received. Farmers' Association, Maxon Mills, Kentucky.

HOMESPUN TOBACCO: Chewing or smoking, 4 lbs. \$1, ten \$2. Satisfaction guaranteed. Pay when received. Pipe free for ten names tobacco users. Farmers' Union, Paducah, Kentucky.

HOMESPUN TOBACCO—Smoking or Chewing, 4 lbs. \$1; 12, \$2.25. Send no money. Pay postmaster on arrival. Pipe free for ten names of tobacco users. United Farmers of Kentucky, Paducah, Ky.

HOMESPUN TOBACCO, mellow, sweet, aged in bulk. Smoking, 15 lbs., \$1.50. Chewing, 15 lbs., \$2.25. Satisfaction guaranteed. Pay when received. Farmers' Union, Mayfield, Ky.

TOBACCO—KENTUCKY SWEETLEAF—Mellow with age. Smoking, 15 lbs., \$1.50. Chewing, \$2.25. Pay when received. Ernest Choate, Wingo, Ky.

HOME SPUN TOBACCO: Guaranteed Chewing or Smoking, 5 pounds, \$1; 10, \$1.75; Pipe Free. Pay when received. United Farmers, Bardwell, Kentucky.

MELOU Old Red Chewing or Smoking, 5 lbs. \$1.00, eleven \$2.00. Pipe free. Tobacco Growers, Sedalia, Ky.

POULTRY

EGGS, CHIX, DUCKLINGS, STOCK—Wyandottes, Rocks, Reds, Cornish, Cochins, Sussex, Langshans, Brahmas, Polish, Campines, Houdans, Hamburgs, Andalusians, Spanish, Minorcas, Javas, Giants, Bantams, Turkeys, Ducks, Geese, Guinea. Arthur Jarvis, Wateland, Indiana.

PURE HOLLYWOOD WHITE LEGHORNS—Quincy winners by 139 eggs last year. Official records 289 eggs. Good sized birds, greatest layers of large eggs on earth. Only 1000 chicks per week. Reasonable prices. Strebeck's Woodside Farm, South Haven, Mich.

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.

WHITE ROCKS—eggs for hatching, \$8.00 per 100. Stock accredited and blood tested. Mrs. Lois Holcomb, North Adams, Mich.

BARRED ROCK COCKERELS, \$3.00, \$4.00. Good size, color and type. From heavy laying stock. Satisfaction guaranteed. I. H. Osgood, Cloverdale, Mich.

S. C. BUFF LEGHORN CHICKS—Michigan State Accredited. Send for circular. J. W. Webster & Son, Bath, Mich.

HAWLEY'S RED COCKERELS—excellent strain. Single Comb Rhode Island Reds, \$3 to \$5 each. Wesley S. Hawley, R. 3, Ludington, Mich.

"RINGLET" Barred Rock breeding cockerels, 6 to 8 lbs., nicely barred. Satisfaction guaranteed. Earl Murphy, Britton, Mich.

THOUSANDS of eight-week-old White Leghorn Pullets, after May 15, \$1.00 each, \$90 per 100. Gummer Willow Farm, Holland, Mich.

SILVER LACED Golden and White Wyandotte Cockerels. C. W. Browning, Portland, Mich.

COCKERELS—Holterman dark strain of Barred Plymouth Rocks, strong, healthy birds, beautifully marked, 6 lbs. to 7 lbs., \$4. two for \$7. Mrs. Glenn Arnold, Saranac, Mich.

BARRED PLYMOUTH ROCK hatchling 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.

RHODE ISLAND REDS, R. C. Large fancy cockerels at \$3 each. Burt Sisson, Imlay City, Mich.

FOR TOULOUSE GEESSE and Guinea, write M. B. Noble, Saline, Mich.

PEAFOWL—Pheasants, Bantams, Pigeons, free circular. John Hass, Bettendorf, Iowa.

TURKEYS

GIANT BRONZE COCKERELS—hatched from pen No. 1, Gregory Turkey Farm, G. W. Ely, 208 Hamilton St., Dowagiac, Mich.

PURE-BRED WHITE HOLLAND TOMS \$10—Hens rated, \$6.00 and \$7.50. Eggs in season. C. Galbreath, Hartford, Mich.

WHITE HOLLAND TURKEYS, toms and hens. Toulouse ganders; White Pekin ducks, drakes. Alden Whitcomb, Byron Center, Mich.

A FEW MAMMOTH BRONZE young toms left. Fine birds, pure-bred and vigorous. M. Love, Bangor, Mich.

TURKEYS—All breeds, strictly pure-bred. Special prices. Eastern Ohio Poultry Farm, Beallsville, Ohio.

PURE-BRED Mammoth Bronze Tom Champion strain. Earl & Merle Phelps, Dowagiac, Mich.

BRONZE TURKEYS, strong, healthy breeding stock. Mrs. Ida Mills, Almont, Mich.

BABY CHICKS

BUY YOUR WHITE LEGHORN CHICKS from a breeder. Twenty years breeding Leghorns. All chicks produced by me are hatched from large white eggs, not less than 24 eggs, to the dozen, and up to 28 eggs, laid by mature selected, vigorous females not forced for production, and specially fed and handled to produce the strongest, most livable chicks. Nearly \$500 worth of stock and hatchling eggs bought from Hollywood and Tanager Farms within past three years for the benefit of my customers. All males in my pens this year, bought or hatched from eggs bought from Hollywood or Tanager, from dams laying 200 to 260 eggs in one year. Chicks sired by 200-egg or better males, 15c each; sired by 250 to 260-egg males, 17c each. J. B. Deneen, Imlay City, Mich.

MYERS "PURE-BRED" CHICKS live and grow. Most quality per dollar. Smith Hatched—healthy and vigorous. Orders booked now delivered when you want them. 100% live delivery. Postage prepaid. Four leading breeds, White Leghorns, Barred Rocks, Rhode Island Reds, White Wyandottes. Flocks culled and bred for egg production. Cert-O-Cult Chicks. Find out about our chicks before you order elsewhere. Send for descriptive circular. Myers Hatchery, Mt. Pleasant, Michigan.

STOUFFER CHICKS have a reputation. Parent Stock has been State Inspected and Accredited for the past three years. Twelve Varieties. Poultry Manual Free; explains the Accredited Plan, contains up-to-date information about raising chicks and pictures of chickens in natural colors. Stouffer Egg Farms, R-26, Mount Morris, Illinois.

BARRED ROCK CHICKS from Mich. Accredited, trapped breeders, entered in R. O. P. The kind of chicks you want. Limited supply. Order early. Also Mich. Accredited White Leghorns, Anconas and Barred Rocks from approved farm flocks. Write now for delivery dates and our reasonable prices. Sterling Poultry Farm, Earl G. Osterhout, Sterling, Michigan.

500,000 HIGH GRADE Hollywood sired White Leghorn Accredited Chicks. Males and females, passed and banded by State Poultry Association. Sturdy and vigorous heavy producing breeders assures chicks of quality and ability. Special discount now. Catalog free. Wyngarden Hatchery & Farms, Zeeland, Mich., Box 21.

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.

MICHIGAN ACCREDITED CHICKS—some sired by 200 to 270 egg males. We purchased high-class breeding stock from Hollywood's Leghorn Farm and Anderson's Ancona Farm in 1926. Get our free catalog and prices before buying elsewhere. We can save you money. Satisfaction guaranteed. M. D. Wyngarden, Zeeland, Mich., R. 4.

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.

LARGE TYPE, Eng. W. Leghorn Chix from our M. A. C. Demonstration Farm flock. Mated to extra large type, pen pedigree males. Low prices, only \$107.50 per 1000. Circular free. Model Poultry Farm, Zeeland, Mich., R. 4.

BLOOD TESTED, bred to lay, Barred Rocks and Aseltine-Hanson Strain, White Leghorns, pedigreed males used. Satisfaction guaranteed. You're the judge. Catalogue free. Aseltine Poultry Farm, Burlingame Station, Grand Rapids, Mich.

BABY CHICKS—ten leading Breeds. Hollywood Leghorns 280-290 egg breeding. Also White, Buff, Brown Leghorns; Rocks, Reds, Wyandottes, Orpingtons, Anconas. Send for big 28-page catalog. Chick Hatchery, New London, Ohio.

BABY CHICKS AND EGGS—Superior Ringlet Barred Rocks, Rose Comb Reds, Barron and Tanager White Leghorns. Catalogue. Wyndham's Ideal Poultry Yards, Tiffin, Ohio.

CHICKS—Barron's Large English White Leghorns. We import direct from England. Breed English Leghorns only. Catalog free. Willacker Poultry Farm, Box M, New Washington, Ohio.

QUALITY PLUS CHICKS—100% guaranteed delivery. Eight standard breeds. Pure-bred flocks. The profit making kind. Write for catalog. Windmill Pointe Hatchery, 1318 Alter Road, Detroit.

BABY CHICKS—Standard varieties from strong producing and carefully culled flocks. Circular of prices, also discounts in large orders. Shepard Poultry Farm, Litchfield, Mich.

SINGLE COMB White Leghorn Baby Chicks. Order your chicks now and get Michigan Accredited, big type, heavy laying White Leghorns when you want them. Hansen and other leading strains in flocks. Pressley Hatchery, Ithaca, Mich.

BETTER CHICKS—Pure-bred stock of high production quality. Eleven breeds rigidly culled. Write for catalogue and prices. Litchfield Hatchery, Litchfield, Mich.

BE QUICK—Amazingly low chick and egg prices. Rocks, Reds, Leghorns, pure-bred. Prompt delivery. Explanation free, quick. Merrill Hatchery, Merrill, Mich.

MICHIGAN ACCREDITED CHICKS from newly blood-tested stock now hatching each week. Seven breeds. Time to start the early broilers. Ask for catalog and prices. Pierce Hatchery, Jerome, Mich.

BLACK MINORCA CHICKS (our best grade) 18c each, 500 for \$90.00. Circular. Robt. Christophel, Holland, Mich.

HELP WANTED

WANTED—working manager with small family, on 275-acre dairy and sheep farm, strictly modern, between Ypsilanti and Ann Arbor. Must be honest and able to handle men, machinery and tractor. State salary expected, and all details in first letter. Owner, 1427 Edison Ave., Detroit, Mich.

WANTED—experienced married man by year. Good house. Water pumped from porch, cistern water in house. Good hen house. Also single man at my place. Present farm with me three years. Bought a farm. G. H. Dalsher, Tecumseh, Mich., R. No. 2.

WANTED—two married men on farm by year for milking and general farm work. State wages and full particulars. E. J. Hurd, Gagetown, Mich.

WANTED, DAIRYMAN—single Apply, stating wage. Balmoral Farms, Ithaca, Mich.

SITUATIONS WANTED

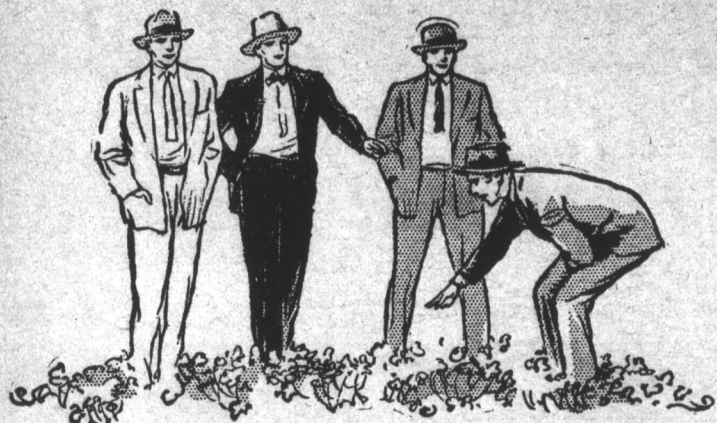
WANTED—married man with family wants position on a stock farm. Edward Feldhauser, Frederic, Mich., Box 43.

YOUNG SINGLE MAN wishes steady position on farm. Address Box 30, Michigan Farmer, Detroit.

AGENTS WANTED

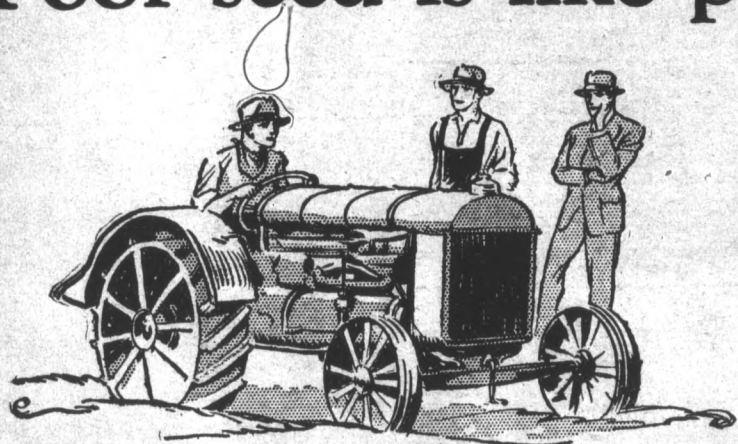
SALESMEN, AGENTS—sell all-steel double truss gates. Can make \$50 to \$100 week canvassing farmers. Write for particulars. Martin Products Co., Martinsville, Indiana.

Why their alfalfa was killed last winter



Last year about 100 farmers of Buffalo County, Nebraska, set out to determine what killed their alfalfa during the winter. The conditions on a farm in Shelton are typical of what they found. This farm has two fields of alfalfa, side by side, which were sown with two different kinds of seed. One field showed a perfect stand while the other was badly thinned out. *The cause of the winter killing was directly traced to poor seed.*

Poor seed is like poor lubricating oil



Neither cheap seed nor low-priced lubricating oil is a profitable investment. Farmers who turn to Gargoyle Mobiloil are often astonished by the many ways in which Mobiloil returns its small extra price. Less time out for repairs. Fewer stops with a tractor because of overheating or thinned-out oil. Less carbon. Better compression and valve action. And Mobiloil frequently cuts oil consumption from 10% to 50%—saving more than its few cents extra cost per gallon right there.

Do you realize the importance of these facts?

Make this
CHART
your guide

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 mod.....	A	A	A	A	A	A	A	A
Chevrolet.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chrysler 4.....	A	A	A	A	A	A	A	A
" other mod.....	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	A	A	A	A	A	A	A
" 6.....	A	Arc.	A	Arc.	A	Arc.	A	Arc.

- (1) Mobiloil is the favorite oil with automotive engineers.
- (2) Mobiloil is asked for by 3 out of every 4 motorists who buy oil by name.
- (3) Mobiloil was used in such famous flights as the U. S. Army Round-the-World flight, Byrd's flight to the North Pole, and Lieut. Maughan's Dawn-to-Dusk flight across the United States.
- (4) The Mobiloil Chart has the approval of 609 automotive manufacturers.

The full economy of Mobiloil will be yours this year if you follow the recommendations in the Mobiloil Chart for your car, your truck, your tractor, your farm lighting engine and your stationary engines. 42 Mobiloil engineers made a careful study of all automotive engines before this Chart was made. Your engines were included.

The Chart is shown at the left in brief form. Your nearby Mobiloil dealer has the complete Chart. Ask him what grade of Gargoyle Mobiloil to use in each of your engines.

The Mobiloil dealer will supply you with the correct grades of Mobiloil—at a substantial saving if you buy in barrel or half-barrel lots. It will be a wise move to see him now about your season's requirements.



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