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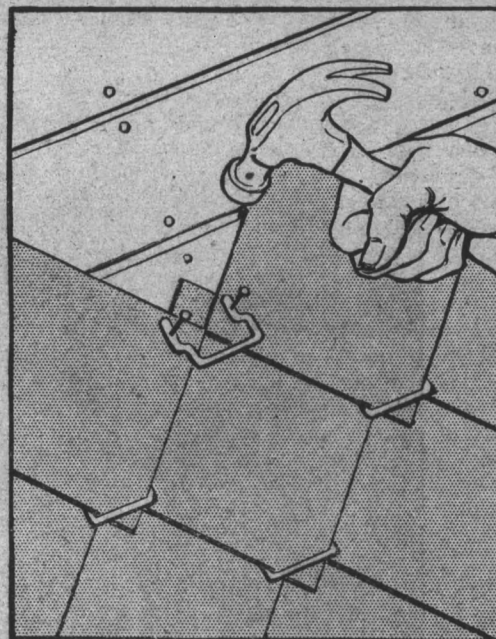
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MICHIGAN FARMER

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Learning to Shoot a Ditch

Michigan Farmers Find Real Sport in Draining Land by the Rapid Method

By A. J. McAdams

DITCHING with the use of dynamite was demonstrated to a large number of farmers of Michigan for the first time when the land clearing short-course train of the Michigan Agricultural College covered the Upper and Lower Peninsula. Since that time interest in ditching with explosives has advanced to a point where considerable work will be done on this line next year. Over seventy-five per cent of the farmers attending the schools conducted last spring and fall had never witnessed any work of this kind. The success of the work done with dynamite is being manifested by the number of inquiries received by L. F. Livingston, land-clearing specialist, relative to ditching.

It is almost impossible to lay down any set rule in blasting ditches with dynamite because of so many absolutely different conditions. In stump blasting every stump presents its own particular problem and the same is true of ditch blasting. In localities where one method of loading does good work, the same method may not apply in another section of the same region. The general system of loading is the same for all ditches but the spacing between holes and the distance apart of the charges will vary according to the soil, moisture content, and amount of growth on the surface.

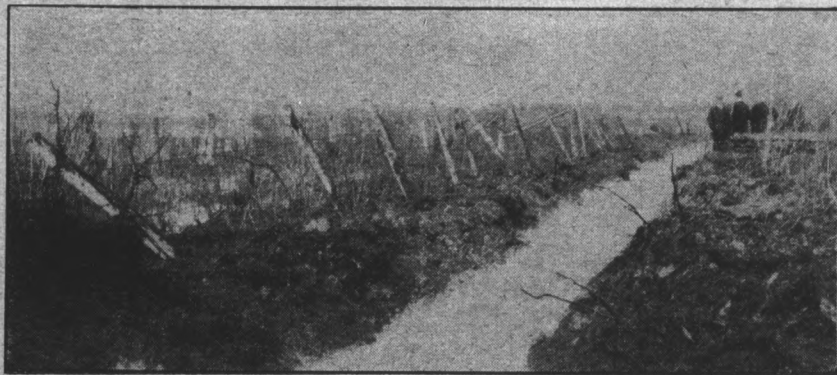
From the work done on the train the farmers were unanimously in favor of ditching with dynamite. The big advantage that they saw in dynamiting ditches was the speed with which the ground could be covered. The necessity for hiring a crew of men for a long period of time is eliminated and enables the farmer to do the work with the labor at hand. A farmer with one helper can blast from twenty-five to thirty-five rods a day, while it would take the same two men a much longer time to do the work by hand or with a team. The worse the condition the greater the advantage of the blasting method. Stumps, stones or trees are no impediment. The one notable feature of blasted ditches is the absence of dirt along the banks, all the dirt being scattered over the adjoining land, leaving the banks level, which adds to the appearance of the ditch as well as to the effectiveness. The speed with which the work can be carried on, together with the fact that the

work can be done at any time of the year are the big advantages of ditch blasting with dynamite.

There is no phase of agricultural blasting more modified by a variation in soil conditions than ditch blasting. The character and moisture content of the soil may be said to be the determining factors, and before any attempt is made, a man should give careful consideration to the conditions of the soil through which he would blast a ditch. If the soil and moisture are not dealt with properly, failure is apt to be met with at the beginning, either through obtaining no results at all or

ty per cent straight nitroglycerin dynamite should be used for this type of blasting.

Ditch blasting is always most efficiently accomplished when the soil is moist or wet. This is because wet or moist soils have a greater tendency to hold together and the blast throws out large pieces, thereby giving a cleaner and better ditch. Practically all the straight nitroglycerin dynamite on the market at the present time is low freezing which enables the blaster to use it at any time of the year most convenient for him. Moderate temperature is an advantage but is not now



Shooting a Ditch is an Economical Way of Getting Rid of Surface Water.

obtaining them at a prohibitive cost.

Just how important the water content of the soil may be will be seen when one realizes that the continuous or propagated method of blasting is used most commonly and the success of the work done by this method is entirely dependent upon the water content. By the continuous or propagated method is meant the placing of a row of dynamite charges in the ground at certain intervals and priming the center charges with a cap and fuse or electricity. Center charge exploding sets off those nearest and so on down the line. The water in the ground acts as a transmitter of shock and sets off the charges. The amount of water in the soil will determine the distance apart of the charges for effective work. In using this method it can be readily seen that a careful determination of the moisture content is essential for successful work. If the bore holes fill half full of water the conditions are satisfactory. This method will, many times work in very damp muck.

The kind and per cent of dynamite use for this type of work is also very important. In the past this office has received letters stating that the propagating method was not successful under wet conditions. Upon investigation it was found that the farmer was using a twenty or forty per cent stumping dynamite with the propagating method. This type of dynamite is not adaptable to propagated ditch blasting because they are far too insensitive to be set off by the shock of the center charge. In other words, they do not contain a sufficient amount of nitroglycerin to be used with this method. Only a fifty or six-

essential, as has been the case in the past.

After the soil conditions have been accurately determined the loading for the ditch is practically the same under all conditions and is modified only by the width and depth of the ditch desired. The following procedure will enable a farmer to blast a ditch in a comparatively short time and with considerable less labor than any other method.

First, determine the course of the proposed ditch, remembering that the fewest turns in the course will permit the finished ditch to carry away the water quicker and prevent the accumulation of debris that will sooner or later necessitate "cleaning out" the ditch. Very often we find farmers, who are putting in a ditch and when the ditch is finished they have no clear outlet. The outlet is as important as the ditch itself. If the outlet becomes blocked or is not clear, the speed of the current is lessened which causes the water to drop its load and gradually fill the ditch. Where there is only a small fall in the area to be drained it is particularly desirable to have the ditch as straight as possible to insure good drainage.

When the course of the ditch is determined it is well to place long stakes that can be seen over the grass or brush about fifty or one hundred feet apart, along the center of the ditch course. These can be ranged in by sighting from the outlet to the starting point. Some prefer to stretch a string or cord between two stakes so that they may get the "bore holes" for the loads of dynamite as straight as possible, thereby assuring a much straighter ditch after the blast.

"Bore holes" are usually made the easiest with some kind of a punch bar. A very simple punch bar can be made from a piece of inch and a quarter pipe about three feet long, with a six-inch tapered point welded on one end and a tee with two twelve-inch nipples for handles screwed on the other end. However, a driving iron or crowbar can be used, the selection of the tool being a matter of the farmer's decision. In is certain that properly made holes are essential to successful ditch blasts and many failures along with a lot of wasted dynamite can be laid to poorly made holes.

When the depth of ditch is decided upon, the "bore holes" should be placed within six inches of the desired depth in soils which are very wet. Where the soils are damp the "bore holes" should be nearer the desired depth. In any case the depth of the holes should be as uniform as possible. In cases where the bottom of the hole is not solid the charges can easily be placed at a uniform depth by marking the tamping stick. Where water does not fill the holes completely it is well to tamp in a little dirt to make it as tight as possible. If water fills the hole stamp over the hole with the boot to make certain the hole is closed. Under a very large number of conditions tamping decides the failure or success in ditch blasting.

Spacing of holes, depths of holes and loads vary with the soil conditions. No general statement or table covering this information can be given. The man doing the work can best decide the facts by making a short test shot. A test shot is made by loading ten holes spaced at eighteen or twenty inches and at the depth desired. The results of this shot will promptly indicate whether he should change the distance between the holes or change the load. If the bottom of the ditch is at the right depth but has a "wavy" contour the chances are the loads are correct but the holes are too far apart. If the ditch is deeper than desired and well cleaned the spacing can be increased slightly and holes not made so deep. By making test shots and noting soil and moisture conditions a farmer can readily determine the correct loading to get the best results. After the test shots have determined the load, then five or six rods can be loaded and fired with cap and fuse or electricity. To shoot more is dangerous. (Continued on page 222).



Brush and Shrubs Are No Hindrance.



A Dynamited Ditch at Otsego Lake.



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DETROIT, FEBRUARY 17, 1923

CURRENT COMMENT

THE MICHIGAN FARMER SAYS:

Good judgment is one of the essentials of good farming.

Our biggest tax is the one we pay for not doing the best we can.

The man who always takes time to say what he thinks, doesn't have time to think much.

Tinkering time is here. An hour now is not as valuable as minutes will be later on. Save valuable minutes by getting things fixed up now.

It is a human failing to spend time bewailing conditions, which had better be used to improve them by starting on ourselves.

We do not do justice to good seed when we put it in poor ground, nor to good ground when we put in it poor seed.

Adding to the Load

AN old-time peddler with a pack on his back, asked a farmer for a lift. As the peddler took a place in the seat beside the farmer, he remarked that he would keep the pack on his back so as not to burden the team with this additional load.

The provisions of three railroad bills recently introduced into our state legislature remind us a great deal of this old peddler. We are pleading for lower transportation rates, yet these bills would increase the cost of rendering transportation service. It is estimated that what is known as the "Full Crew Bill" would add one and a half million dollars to the annual expense of conducting the railroad business here in the state. Other bills would add even greater amounts to the transportation costs.

True, these bills are offered in the interest of safety. We believe with all our heart in providing safety devices. But experts tell us that the provisions of the "Full Crew Bill" in particular would divide responsibility and thereby increase the hazard of railroading to the employees and to the public rather than diminish them.

Then again, this point should be thoughtfully considered by every person who depends upon railroads, and that includes every last one of us: Eventually this added cost will have to be paid by the producer and the consumer. This is as certain and as unalterable as the laws of the Medes

and the Persians. We should not "kid" ourselves by strapping these additional costs on the back of the railroad. Ultimately, our team would have to pull the entire load.

Ton Litter Contest

MICHIGAN is to have a ton-litter contest. It's a new thing. It consists simply in a race to see who can make the most pork from one litter of pigs in six months time. All who succeed in reaching the ton mark with their litter can qualify for membership in the "Ton Litter Club." All breeds are allowed to compete and the contest is open to any resident of Michigan.

All the swine breeders' associations of the state are behind the movement and the working out of the details are in the hands of the Live Stock Extension Department of the Michigan Agricultural College. It is a sure go, and it promises a lot of enthusiasm, some valuable hog feeding information and a sure profit.

All you interested hog fans who think you own the best breed of hogs in existence, and the best individuals in that breed, take notice. Here is your big opportunity to coach along the old sow, tune up that prospective litter, limber up your own ingenuity and show the world. Watch the columns of the Michigan Farmer for any further news and information along this line.

Must Go All the Way

THE Good Book tells us that, if we transgress the law in part, we are guilty of all. This advice can be carried over into the farming business to the advantage of the man who tills the land.

In growing crops there are limiting factors. Good seeds are necessary, but good seeds alone will not give a maximum crop. Plenty of available plant food is necessary, but an abundance of pre-digested plant food alone will not give a maximum crop. A fine, well-compacted seed-bed is necessary, but such a seed-bed alone will not give a bumper crop. And so on with all the various factors required for the bringing to maturity of a crop that is worth while.

Now, the point is this: Unless we are willing and able to go the whole distance and provide all the factors required in the growing of a maximum crop, or in the developing and fitting of stock, then it is better that we go to work on the road, accept the presidency of some bank, or run on the free-for-all ticket at the coming election.

Getting the Success Habit

THE other day we got word that a fifteen year old lad won the corn king championship of Kentucky for the third time. This year he becomes permanent owner of the state championship cup, and besides raised 125 bushels of corn on an acre which is valued at \$188.85. He had learned how to succeed and kept on succeeding.

This same success factor is noticed in our weekly boys' and girls' contests. When the girl or boy once wins the knowledge of knowing how to succeed is gained, and it seems much easier to get up a winning paper the next time.

It seems that success gets to be a habit, the same as other things. After we succeed we know how to succeed and if we want to continue in the good work each little improvement added to what we already know counts for a lot.

We have but to look about us to see similar examples among people of all

ages. But the earlier in life one gets it the better. For this reason alone, the boys' and girls' club work is of great value. It teaches early in life the right way to do things and gives the opportunity of winning out.

Perhaps some of us are too old to take on new habits but we should at least do our very best to help our young folks to learn to succeed in the little as well as the big things of life.

May it not be that the success habit is at least partly responsible for the truth of the biblical expression, which says: "He that hath shall receive, and he that hath not shall have taken from him that which he already has."

Farmers Hard Up?

A RICH man in a public way recently enumerated some of the greater comforts, pleasures and satisfactions of the well-to-do. Some of the most satisfying experiences in life, says he, are the purely physical joys of eating when you are hungry, and resting when you are tired.

Note that in order to get the most out of these homely joy givers we must become hungry and tired, and here is where the farmer shines all right. He doesn't have to starve himself for twenty-four hours in order to work up a good appetite, nor knock the baby's little rubber ball all over an eighty-acre lot with a stick in order to get tired enough to rest.

The farmer has real food to eat, too, and he has it fresh. The city man takes what is left, and in the best shape he can get it, if he has the money to pay for it. If he does not have the money he goes without, and there are plenty of them going without. You can find many able-bodied men begging for a bite to eat, on the streets of Detroit, today, where they say everybody gets big wages.

These highly paid men whom we hear so much about, are not so well off as it may appear. It takes real money to live where there is so much competition for the necessities of life. Get out your pencil and figure how many dollars' worth you ate today, based on prices the city man pays if he gets it served as fresh and as well prepared as you do. Here is the schedule: Three buckwheat cakes, 20c; two eggs, 20c; two mouthfuls of sausage, 40c; one cup of coffee, tea or milk, 10c; dish of cereal, 15c; fruit, 20c. If you want a second helping, double the price. Beefsteak, \$1.25; one-fourth of a three-pound chicken, 65c; potatoes, 15c; two slices of bread, 10c; vegetables, canned, 10c; fresh vegetables, 20c; celery or pickles, 20c; cake, 20c; hot mince pie, 15c per cut.

Now, be honest. Figure it for the family for the day, and for the week. Don't tell your wife if you don't think best. She might want to collect.

Now, take inventory of the solid comfort you get when you pull the old rocking-chair up to the fire, after the day is done, and see if you don't feel like one of the world's most favored citizens, after all.

Farmers' Week at Home

THERE were over four thousand people in attendance at Farmers' Week at the College a short time ago. Many more would have attended had the roads been passable, and had they not been entertaining a cold in one of its various forms. These things kept the crowd from equaling that of last year. But as it is, among all the round-ups held, the Michigan Farmers' Week holds the record for attendance this year. Minnesota and Illinois had only 800; Iowa, 1,500, and Indiana only about a half thousand.

The college management and the farmers of the state are to be com-

mended for the week's success, for it is an indication of progressiveness on the part of both. It also shows that the college and the farmers are working together.

These four thousand enjoyed a mental feast which for its main course, had facts and inspiration served by leading agricultural thinkers. The dessert was the association or contact with other folks. This is always an interesting and delightful part of such gatherings.

However, there were over ninety thousand farmers who could not attend. To these and to those who did attend, but could not possibly take in all the good things which were going on at once, we offer in our columns the "meat and potatoes" course of the "feast." This is theirs to enjoy by the fireside regardless of weather, roads, or physical condition.

Valentines

ON Valentine Day, the internashunal sweetheart day, I got one of them beautiful love sentiments what showed a big fat man with a big red nose, sleeping under a hard cider apple tree in broad daylight with a water jug named Whiskey beside him. There was a big mosquito on the red nose drillin' a well tryin' to tap one of his alkiaulic veins.

The poetickle inspirashun under this work of art was:

When in sweet repose
On your nose
Is a Mosquito
Gettin' drunk on you.

Now, this love message shows a true knowledge of my habits of repose, but it ain't acquainted with my drinkin' habits, or my complexshun. My nose ain't red, so it ain't become rarified from its ability to inhale alkiaulic fumes. I think alkiaulic is good stuff to preserve fruit in and to put into radiators but for preservin' humans it ain't no good. This young lady has got me wrong, that's all.



Valentine Day is sometimes the startin' of interesting complicashuns. For inst., Doc. Hudson has got a valentine what showed him like a old Doc. Sawbones what was shakin' hands with a skeleton. And Squire Dean got one what showed him like a dried-up old skin-flint, what got poor from the money he was carryin' around.

Now, Old Doc just knows the Squire sent him that nice love message, and the Squire is sure the Doc sent him what you call that platonic inspirashun. And there's been a family feud since. And it's all 'cause the Squire won't pay the Doc. for the time he called Doc, but got well before Doc. got there. Now, that ain't Doc's fault, 'cause he couldn't help it 'cause the Squire got well so quick. If he got there in time he sure woulda seen that the Squire wouldn't a got well so soon.

But bein' it as it is, the Squire's daughter an' Doc's son is exchangin' some of them epistles what is made of lace and hearts and flowers which has got such things like "As long as the pussy is got a tail, I'll be yours without fail." I'm sure if old Doc. or the Squire see such things, they'd go out and cut off the pussy's tail. But then, love would say, "Poor, Poor Pussy," and keep right on a goin'. That's the way love is.

Sammy just told me he saw Jack Bucklin's kid put that love message o' mine in the mail box. Jack's one of Sophie's old sparks. Maybe that's why he is sendin' me such nice felicitashuns.

HY SYCKLE.

There Are No Farm Cure-alls

Speakers at Farmers' Week Say Many Factors Enter Into Improvement of Agricultural Conditions

HAPPINESS is in here, not out there!" That was the philosophy of an old cobbler who for long years had been shut away from the world in his little shoe repair shop off a side street in New York City, and that was the reply he gave to Sydney Anderson, congressman from Minnesota, when asked if he didn't miss the bustle of the world.

That also must be the philosophy of the farmer if he is to extricate himself from his present difficulties, said Mr. Anderson, in addressing Farmers' Week visitors in the M. A. C. gymnasium on Thursday evening, February 1.

"The solution of our problems is 'in here,' not 'out there,'" declared Mr. Anderson, as he tapped his chest. "National problems are only individual problems multiplied. We must have proper relations with each other and each must do his part."

The tall congressman from Minnesota was not the only Farmers' Week speaker who made it clear that there is no panacea for the farmer's ills. President David Friday, of M. A. C.; Samuel O. Dunn, editor of the Railway Age; Prof. G. F. Warren, of Cornell University, and Eugene Davenport, formerly dean of agriculture at the University of Illinois, were equally emphatic in their warnings. They agreed that there is a way out for the farmer, but they were also agreed that merely increasing credit facilities or lowering transportation rates will not turn the trick.

Perhaps the most encouraging statement made by President Friday in his

opening address, "A Policy for the Agriculture of State and Nation," delivered Monday night, January 29, was the prediction that within fifteen months the relation of prices of farm products to other prices will be about what it was in 1913. This change will come about, he said, through the lowering of the prices of the commodities that farmers have to buy. Agricultural prices are due to remain somewhere near their present level, but wages of workmen in the cities are likely to fall and bring down with them other prices. Prices of manufactured products will be further reduced by the competition of European goods which is in prospect.

President Friday said that he expects the population of the farms to remain almost stationary. Any natur-

al increase will find its way to the cities, he predicted. A slight increase in agricultural production from year to year may be looked for, but this will be offset by the increase in urban population.

The chief problem is in keeping the right sort of people on the farm, asserted President Friday. To this end he would develop a culture particularly adapted to the rural community, the characteristics of which would be repose and dignity. In recent years there has been much organization of farm interests and out of it all may come a set of leaders who will blaze the way to this new culture.

The importance of studying markets and market processes was emphasized by President Friday, but he made no claim that Utopian conditions will re-

sult from the spread of cooperative movements. Farmers should cooperate, not merely to secure a cent or two more per pound for their product or to eliminate the middleman, but to gain valuable information about the market so that they may adjust their production to the particular demands of consumers. Michigan farmers, because of the great increase of urban population in recent years, have an unusual opportunity to take advantage of the home market. By making themselves independent of the international market they will make themselves independent economically as well.

The predictions made by President Friday regarding future price trends were corroborated by Prof. G. F. Warren, of the economics department of Cornell University, who spoke Wednesday afternoon, January 31. Prof. Warren exhibited charts showing the relation of agricultural prices to other prices during the Civil War. He predicted that the coming period of low prices for manufactured products will continue for probably fifteen years.

Samuel O. Dunn, editor of the Railway Age, presented a side of the transportation question which ordinarily is not brought to the attention of farmers. He described the difficulties of the railroads in keeping themselves financially solvent during the unfavorable conditions in recent years and pointed out that unless an adequate return is made possible the railroads will not be able to serve farmers or the country at large at all.

(Continued on page 218).



Both Summer and Winter Get-together Meetings Are Valuable.

Farm Bureau Stronger than Ever

How a Safe and Sane Program Worked, is Told at Annual Meeting

WHATEVER grievances may be held by individuals against the Michigan State Farm Bureau, the annual business meeting held at M. A. C. on February 1-2, in connection with Farmers' Week, was characterized by complete harmony. Delegates in attendance expressed satisfaction with the accomplishments of the farm bureau during the last year and confidence that it will continue permanently as the representative business organization of the farmers.

How the farm bureau found new ways to be of service to its members during the year of 1922 was outlined by Clark L. Brody, secretary and manager, in his annual report, and he declared the bureau is now stronger than ever before. Its deficit of \$15,215 of two years ago has become today a net worth, not including membership fees, \$174,893.41. Its increased efficiency has been attended by almost continual reduction in overhead expenses from approximately \$200,000 per annum to \$77,108.76.

The program for 1923, as outlined by Mr. Brody, calls for continued improvement of the farm bureau business departments, the development of the Michigan Farm Bureau News and other publicity channels, the construction of a first-class traffic department, the extension of local and county organization activities, promotion of a closer relationship of affiliated exchanges, continuation of second membership drive, completion of collection work in the remaining thirty counties, the reduction of operating expenses in every possible way consistent with efficient service and the securing of leg-

islation of vital interest, not only to farmers but to the whole nation as well.

Mr. Brody concluded his report with these words: "The farm bureau has been tempered in the fires of business depression, and the unflinching loyalty of its members and local leaders has enabled it to stand the test. The flames of enthusiasm that characterized the big organization in the beginning are now burning down to the coals of real service and permanency. Truly the farmers of Michigan have builded well."

The meeting at M. A. C. marked the passing of James Nicol, of South Haven, as president of the State Farm Bureau and the advent of W. E. Phillips,

of Decatur, who has represented the Michigan Elevator Exchange on the board of directors, in his place. M. L. Noon was re-elected as vice-president, Mr. Brody as secretary-manager, and Fred Van Norsdall, of Three Rivers, as treasurer. The board of directors now stands as follows: Fred Smith, of Elk Rapids, for Michigan Potato Growers' Exchange; Elmer A. Beamer, of Blissfield, for the Michigan Live Stock Exchange; Verne Gormley, of Newberry, for the Upper Peninsula; E. C. McCarty, of Bad Axe, Mrs. Edith L. Whitney Watkins, of Manchester, M. Wagar, of Carleton, George Friday, of Coloma, and M. B. McPherson, of Lowell, directors at large. Mr. Gormley was the only new man elected to

the board. He will look after the particular interests of that part of Michigan north of the Straits. President Phillips will continue to represent the Elevator Exchange, and Vice-president Noon will represent the Michigan Milk Producers' Association.

Farm Bureau Resolutions.

The Michigan State Farm Bureau at their annual meeting February 1-2, passed resolutions which are given below in a condensed form.

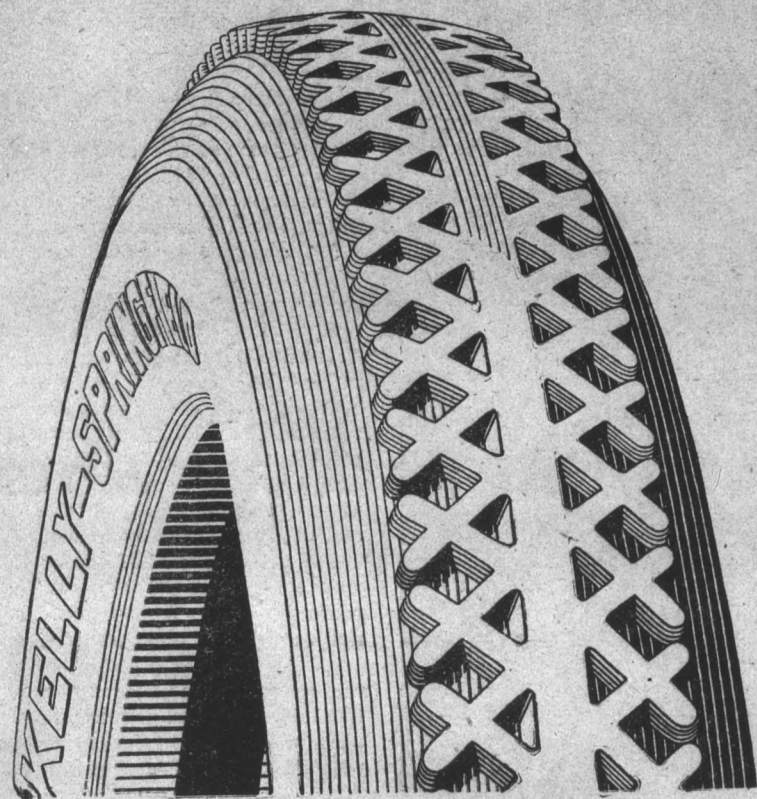
1. Publicly recognized the service rendered by Mr. Hale Tennant, director of marketing at M. A. C., and requested President Friday and the State Board of Agriculture to provide every facility for the development of the markets department.
2. Farm Bureau Traffic Department petitioned the Interstate Commerce Commission for special consideration with respect to the inability of Michigan railroads to seemingly move the 1922 potato crop. Such petitions request an emergency order for immediate relief of the Michigan potato shippers.
3. Endorsed the boys' and girls' club work and recommended it to the several county farm bureaus for their consideration.
4. Opposed the proposed statute that eastern standard be made the standard time for Michigan.
5. That the Farm Bureau Traffic Department work to establish a feeding in transit rate east of Chicago.
6. Favored the enactment by the present session of the legislature for adequate measures for the expansion of the work of bovine tuberculosis.

(Continued on page 220).



Timber Conservation Received Consideration in Farm Bureau Resolutions.

KELLY TIRES



WHEN a tire fails to give satisfactory mileage it may be the fault of the rough country roads, but it is more likely to be the fault of the tire itself.

Good tires will give more service on poor roads than poor tires will on good ones.

Kelly-Springfield tires are built to give service. For over a quarter of a century they have been famous for their high quality.

The Kant-Slip Cord, the newest member of the Kelly family, not only gives long mileage on rough roads but is a wonderful non-skid tire on smooth ones. It is the longest-wearing tire Kelly has ever built and the safest tire *anyone* has ever built.

Kellys used to cost more than other tires, but now that the huge new Kelly-Springfield plant has been completed and production greatly increased,

**It costs no more
to buy a Kelly**

Senator Capper's Washington Letter

THE approval of the agreement whereby \$4,604,128,085.74 of Great Britain's debt to American taxpayers will be paid at the approximate rate of \$150,000,000 a year is now squarely up to the senate.

President Harding, in a personal message to congress appealed for approval. The house has done so.

Quoting from the report of the American debt funding commission the President truly said the agreement "is a business settlement fully preserving the integrity of the obligations."

He added that it is the first great step in the readjustment of the inter-governmental obligations growing out of the war.

It is all of this and more. It represents a great forward movement toward the restoration of world economic conditions.

The terms will not mean any eventual loss to the United States, authorities predict. Not only will the books be balanced in the end, but immediate prospects are offered for a reduction in taxation.

Once the agreement is approved and the British bonds deposited with the United States treasury the debt can be forgotten and attention turned to the ways of peace. The importance of this can not be minimized.

President Can't Help the Subsidy.

The President erred, however, when he coupled a final appeal for the ship subsidy bill along with the request for approval of the debt agreement. They are not related.

The subsidy is "dead" and no amount of presidential persuasion can convince senators that enactment of this measure is in the best interests of the American taxpayers.

Mr. Harding pleads for a "decision," but as a matter of fact the "decision" has already been given. Refusal of the senate to permit the ship subsidy bill to delay passage of vital appropriation bills for the conduct of the government was the "decision."

In this connection the department of commerce announces that during 1922 British shipping on the high seas increased 951,000 tons, French increased 355,000 tons, Italian increased 113,000 tons, but American Shipping Board

tonnage decreased 400,000 tons, and privately owned American tonnage decreased 200,000 tons.

These figures show that the American flag is disappearing from the high seas, despite a liberal policy of governmental operation.

There is no assurance that the subsidy bill will restore the flag to the seas—but there is assurance that the subsidy will add to the already high cost of government.

Dollar Values Decline.

The purchasing power of the farmer's dollar continues to decline.

The department of agriculture reports that "although agriculture, from a financial standpoint is getting better, the farmer's dollar opened the new year with a purchasing power equal to only sixty-eight cents before the war."

In other words, while the goods he sells have steadily declined in price the goods he buys have steadily increased.

Many farmers think their dollar has not a sixty-eight-cent purchasing power, as compared with pre-war levels. Fifty cents, most farmers think, comes nearer being right.

Regardless of the exact figure the difference is there. It is an uneconomic, unhealthy and an unfair arrangement which some day may kill the goose which lays the golden egg.

Commodity prices either must tumble or farm prices must soar. An even balance must be found.

Some Relief in Sight.

The senate recognizing the economic plight of the farmer has taken steps to give him relief.

The Capper rural credits bill and the Lenroot-Anderson measure, both constructive laws which unquestionably will help toward relieving conditions, have passed the senate and are now awaiting action in the house.

March fourth approaches. Unless in the meantime the Capper and Lenroot-Anderson bills have crossed all legislative hurdles farmers will be cheated.

Arthur Capper

WASHINGTON, D. C.

Capital Comment

By Our Lansing Correspondent

PRACTICE gained in making campaign speeches is made evident by the eloquent debates staged on the

floor of the house during the past week. Marriage laws, school bonds, government operation of coal mines, and the eight-hour day were topics which provoked prolonged and heated discussions.

In the senate, things are different. Most of the work is done in committees and debate is usually very limited. For instance, when the bill to repeal the 1921 law providing for the annual gathering of crop acreage and live stock figures by the supervisor came up for final passage in the senate, there was no word of discussion or debate and every member present answered "aye."

This repeal proposal will be accorded a very different reception in the house, however. Announcement has been made that it will not get out of the agricultural committee without a hearing from the farm organizations and the State Department of Agriculture and other interested parties and if it is reported on the floor of the house, a lively battle is promised for sentiment among the members is re-

garded as quite evenly divided over this issue.

TB. Program Gets O. K.

Prospects are good for legislative support of the five-year program for the eradication of bovine tuberculosis in Michigan. The house committee on agriculture reported favorably the \$200,000 emergency appropriation to pay accumulated claims and finance the campaign for the rest of the fiscal year. The bill to slightly reduce the amount of state reward was also reported favorably.

Dairy Interests to be Protected.

No apparent opposition to the anti "filled milk" bill has developed. It is scheduled to pass the house soon.

Senator Norman B. Horton, of Fruit Ridge, aims to restore the confidence of the buying public in Michigan cheese by establishing a definite standard of fat and moisture content and requiring honest labeling.

Amendment of the Michigan quarantine regulations for sheep to allow feeder sheep and lambs to be brought into the state without dipping is proposed by Representative Edward G. Read, of Richland, who is one of Michigan's largest sheep feeders.

Marketing Certified Seed

Discussed by Crop Improvement Association

By H. C. Rather

WHILE the Wednesday session of the twelfth annual meeting was devoted to a discussion of problems of production, the Thursday meeting was devoted to a program dealing with the marketing of certified seeds.

L. Whitney Watkins, of Manchester, the association president, sounded the keynote of the remarkable success of the Michigan Crop Improvement Association when he stated that its members had always held and must continue to hold, a real pride in putting out a quality product. "The Association," said Mr. Watkins, "is the backbone of successful crop development in Michigan. Its work proves or disproves the value of new varieties as they are released by the Michigan Agricultural College. It makes of practical benefit the work of breeding up

Certified Seed Produces Higher Yields.

H. C. Rather, secretary of the association, outlined the estate of the average association seed producer as compared to the average Michigan farmer. The average oat yield within the association was 47.5 bushels, as compared to thirty-three bushels on the average Michigan farm, giving the user of certified seed an added income of \$5.80 per acre of oats at present



Careful Seed Selection Bring Ample Returns in the Harvest.

those varieties because, by association growers the seed is kept to the standards of purity and quality which will perpetuate the good characteristics brought out by the plant breeders and bring the productive benefits of such seed to widest use on Michigan farms."

The Advantages of Seed Pools.

J. W. Nicolson, manager of the seed department of the Michigan State Farm Bureau, outlined some of the problems in connection with selling of certified seed. The limited certified seed pool used so successfully with Rosen rye last fall will again be put into operation with Robust beans and the oat varieties this spring. Mr. Nicolson emphasized the importance of the cooperative organizations in the farm bureau plan of seed dissemination, such organizations assisting both in and out-of-state distribution. The Michigan State Farm Bureau Seed Department is now purchasing agent for the cooperative seed organizations of four different states, the performing of this work widening greatly the market for Michigan certified seeds.

The Farm Bureau Seed Department plans another year to put in drying facilities for seed corn, thus improving the service which can be given in this important line of seed marketing work.

Standards Must be Maintained.

G. W. Putnam, superintendent of inspections in the association, outlined the standards which must be maintained if certified seed is to live up to its market reputation. He explained the difference between certified seed, the commercial product of the association, and registered seed, the lots set aside for distribution within the association, as being most desirable for parent stock for further seed production purposes.

J. W. Weston, M. A. C. potato specialist, told of his recent visit to potato marketing centers where he found a very keen producers' competition with Michigan potatoes selling at a discount because of poor grading at the shipping point and general low

prices, even though none of the grain was sold at seed prices. In barley, certified seed growers averaged nearly fifteen bushels more than the state barley average, while in beans the Robust variety within the association, produced eleven bushels per acre more in 1922 than the state bean average for that season.

Secretary's Report.

The secretary's report brought out that there were certified in Michigan during the past season 155 acres of wheat, 716 acres of rye, 137 acres of barley, 672 acres of oats, fifty-one acres of soy-beans, 520 acres of beans and 272 acres of corn. This important acreage of certified seed has been brought out under an association policy of not how much seed can be certified, but how high can Michigan standards for certified seed be maintained.

The association in its business session took action to investigate the acid phosphate prices, A. B. Cook, of Owosso, being appointed chairman of a committee to confer with the farm bureau purchasing department in this regard.

Resolutions adopted favored legislative appropriations to support the building and extension appropriations asked for by the Michigan Agricultural College and materially supported the campaign for a Union Memorial Building now being put on by M. A. C. alumni, by a substantial contribution from the association to that fund.

The New Officers.

Officers elected for the ensuing year were: L. Whitney Watkins, of Manchester, president; A. B. Cook, Owosso, vice-president; H. C. Rather, East Lansing, secretary-treasurer; directors, Garfield Farley, of Albion; Ralph Arbogast, of Union City; F. F. Coras, of Chesaning; E. C. McCarty, of Bad Axe; W. R. Kirk, of Fairgrove; and G. R. Wheeler, of Mt. Pleasant;

Mrs. Catherine Clarke, clerk; G. W. Putnam, superintendent of inspection; J. F. Cox, professor of farm crops at M. A. C.; F. A. Spragg, plant breeder at M. A. C., and J. W. Nicolson, manager of the farm bureau seed department, sit with the board of directors.



In the 4 places where the strain is hardest

"U. S." reinforcements insure extra wear

Unless a boot is skillfully made, it will give way at the heel—or break at the instep—or sag at the ankle or wear through at the sole—

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That's why the makers of "U. S." Boots have built a strong system of protection into these points of hardest wear. From 7 to 11 extra layers of fabric and tough rubber reinforce every pair of U. S. Boots at the very places that are generally the "weak spots."

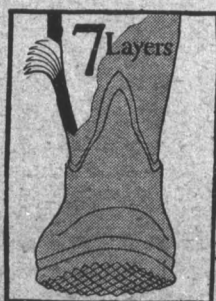
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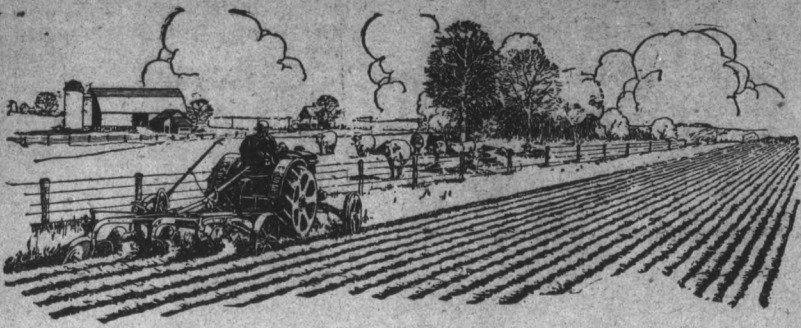
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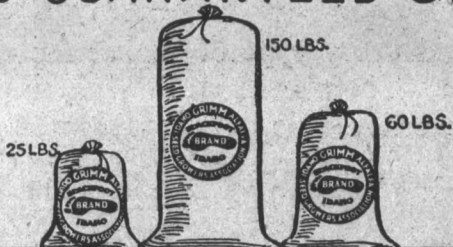
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ALTERING HIGHWAYS.

Has the highway department the right to move a road so as to damage property?—W. H. K.

Compiled Laws of 1915, Sec. 4288 to 4292, provide that the highway commissioner on petition by seven or more freeholders may call a meeting, and after hearing lay out, alter, or discontinue any highway, and any person feeling aggrieved by his decision may appeal to the town board.—Rood.

WEIGHT OF SILAGE.

Please give me the number of cubic feet in a ton of silage.—C. O.

The weight of silage varies with the depth in the silo from which it is taken. Ensilage ten feet from the top of the silo will weigh around thirty pounds to the cubic foot. That taken thirty feet from the top of the silo will weigh approximately fifty-six pounds per cubic foot. The average weight of silage in a thirty-six-foot silo has been found to average 42.8 pounds.

With these figures as a basis, you can readily figure the number of cubic feet in a ton of silage as it appears under your conditions.

DOWER RIGHTS.

A man lost his first wife. They had five children. A neighbor lost her husband, and had four children. They were married. The man has a house and lot, also a farm in Kansas, and wants to deed it over to his youngest daughter. Can this be done? The woman has property and money, and they had had a verbal agreement when married that they would each keep their property for their own children.—E. R.

Dower rights cannot be barred by verbal agreement. The man can convey to his daughter subject to the possible dower rights of his wife if she survive him.—Rood.

ESTATES.

My father died, leaving five children by first marriage and one by second, and leaving property valued at \$3,500, with doctor and funeral expenses. He had borrowed money from two children of first marriage for benefit of a half-brother who is past twenty-three years old, and which he promised to pay as soon as he was able to work. Can we hold half-brother for the debt, or was the father to pay? Father left property in joint deed. Can we children come in for our share? Has stepmother got to pay debts? She is selling property and refuses to pay debts. Can we collect money half-brother borrowed from stepmother?—W. H.

Land held in joint name of husband and wife is by entirety and belongs exclusively to the survivor, free from any debts of the deceased. Only parties to the contract may sue on it. After cost of administration and provision for widow during probate of the estate and provision for children under ten years old, except that the whole estate does not exceed \$150, no further allowance can be made to the widow until the debts of deceased are paid.—Rood.

RATCHING ALFALFA STAND.

I have a field of alfalfa but a rather poor stand. It did not get any lime when seed was sown. How would it be to apply lime next spring and a little more seed and drag them in?—A. A.

Numerous instances are on record where various people have tried to patch up a stand of alfalfa by re-seeding, and fertilizing the poor spots, and not one has been a success.

The consensus of opinion is that the best way is to re-plow and re-prepare

the land and sow again. In seeding again, you can avoid all the mistakes made the first time.

Without doubt the main reasons why failures are recorded with alfalfa is because lime was not applied in the proper quantities, or not at all, and there was failure of proper inoculation of the soil. If these two factors in the growth of alfalfa are properly supplied there is little likelihood of failure.

If you re-plow and re-seed, it is advisable to apply one to two tons of ground limestone per acre; you will be much surer of success if you apply two tons. Then be sure the ground is properly inoculated. The trouble in applying lime now is that it on top of the ground, while it should be mixed with the surface soil.

If the land is not fairly fertile, use 200 to 300 pounds of commercial fertilizer per acre when seeding.

CONTRACTS.

After a contract is signed, can it be changed by mutual consent? If one party changes his copy of contract by crossing out or writing in, or both, what effect will it have on one or both contracts? Must the writing on both contracts be exactly alike if they convey the same meaning? Must both parties sign both contracts? Must a contract be stamped? If so, by whom?—A. R.

Some contracts require revenue stamps, some do not. They should be in the same terms if there is more than one copy, but this is not fatal if the intention of the parties is discoverable. Land contracts are not binding till signed by the seller, but they do not have to be signed by the buyer. Most contracts do not have to be in writing at all, nor signed by either party. Alteration by one without the consent of the other, the alteration being material, would render it unenforceable by the party altering it; but alteration by mutual consent would not have that effect. A verbal modification by mutual consent, if a new contract, and coming within the statute of frauds, requires new re-execution.—Rood.

CHIMNEY LEAKS.

Our chimney was rebuilt two years ago from a foot below the roof. Last year we burned wood and it was O. K. This year we are burning dry wood, and brown juice runs out of pipe sometimes but through the plaster it is coming all over. Does any one of our readers know of a cure? Chimney also is wet outside above the roof.—G. R.

The brown juice which you speak of as running out of the pipe and chimney, could come from two sources. Wood, in burning, especially when it has not enough air for free burning, forms such products as creosote, wood alcohol and acetic acid, which may condense and run out of pipe. Beech wood gives off more creosote than other wood.

This condition may be helped by careful attention to the regulation of drafts. In case the lower drafts are closed tightly the draft in the door should be opened to burn the gases forming over the fuel. The fire should not be allowed to get a strong start and then be closed up tightly.

Snow or rain coming in at the top of the chimney may run through. This may be prevented to a large extent by a piece of sheet metal over the top of the chimney, causing the smoke to come out at either end of it. All the pipes and the chimney should be kept free from soot.—F. E. Fogle.

The Handy Man's Corner

HERE are three of the prize letters in response to our "Helps in the Home" contest which recently appeared in our columns. We feel sure you will find something of value in them.—The Handy Man.

HELPS FOR WOMEN.

A power plant is a wonderful gift. The housewife's heavy work to lift. For washing dishes, too, I think, A fine thing would be a nice large sink.

Running water and painted floors. An old rag carpet at kitchen doors. A table on wheels, food and dishes to carry, And a washing machine makes my housewife merry.

—Alford F. Ward.

BEING KITCHEN SLAVEY.

ABOUT three years ago the good wife was sick in bed for two weeks and I was the kitchen slave.

Say, I tell you, I got so tired of lugging water, filling and cleaning lamps, wearing off my knuckles on the washboard, that I said to myself, "never again."

I had to have an engine to run my cream separator, so I got a kerosene one at \$100. A belt-driven washing machine cost me \$41. That paid for itself in twenty washdays.

I had soft water in the bathroom, but no hard water. I bought a tank from a junk pile for \$2.00 and piped the water from the windmill to it.

I laid an iron sink, \$1.00, on the floor of the back room and a short piece of hose connected to the washing machine carried off the wash water. This ran near the roots of my raspberry plants and in the dry weather was a blessing to them.

I had the house wired. I bought a second-hand generator for \$50, batteries for \$65, and now have electric lights in the house, hen house, barn and hog pen. Incidentally, a contented wife.—R. L. Beckwith.

A CONVENIENT HOUSE.

A FARM house should have a basement under the whole house. The basement should be divided into three rooms, using hollow tile for partitions.

The furnace room should have a furnace with automatic regulator to regulate the heat. A hot water tank should be attached to the furnace, also a small heater or stove attached to hot water tank for summer use.

The fruit and produce room should be under the kitchen and have a cupboard, an ice box and a potato bin, also a dumb waiter to go up into the kitchen.

The laundry room should have two stationary tubs, a power washer and wringer, an ironing board attached to the wall so as to fold up out of the way when not in use. There should be either gasoline or electric power in this room to run the washer and do the ironing, also lights, and hot and cold water and plenty of windows to light it.

The outside basement door should open into the furnace room and doors from laundry close to outside door, also fruit and vegetable room should open into the furnace room.

The kitchen should be large enough for the family, have a sink with sewer pipe connected, a range, oil stove, a kitchen cabinet, a built-in cupboard, between dining-room and kitchen. This cupboard should go clear up to the ceiling, with three tiers of doors. The lower tier should have three bins that swing out. The dumb waiter should also be in this cupboard and connect with the vegetable room in the base-

ment. There should also be a small door ten by twelve inches that will swing into the wall and chute run from this door to the basement furnace room. To sweep dirt into this door does away with the dust pan and thousands of steps during year.

The dining-room should be large enough for the family, with built-in buffet and china closet beside the cupboard from the kitchen. It should have three windows, grouped on the south side preferably.

The living-room wants to be roomy, have a built-in bookcase, a fireplace and a group of three windows. There should be at least one bedroom on the first floor with two windows, a good-sized clothes room between the bathroom and bedroom, with a high window. There should be a door from the

Getting Ready

WHAT is done between now and spring helps a lot at that time soon to come when there is so much to do that we do not know which way to turn. Many have convenient ways of doing things that others should know about. For this reason we would like letters from our readers on "How I get ready for the spring work." The writers of the five best letters will receive a pair each of our handy pliers.

All letters coming in before March 2 will be considered in the prize awards.—The Handy Man.

bedroom to bathroom through this closet, also a door from the bathroom into the living-room. Besides the regular bathroom fixtures, there should be a built-in medicine closet, a built-in clothes chute that would connect with the laundry, so that when changing clothes they can be put into this chute and land in the laundry in the basement.

I would have no parlor. However, I would have a den or office room large enough for a roll-top desk, a library table, safe, built-in bookcase, a waste paper chute to the furnace room, and an outside door and a good-sized window.

Upstairs I would have it studded in so as to have a hall and three bedrooms of good size to receive a bedroom suite, and each one open into the hall. By studding in, it would leave lots of closet and store room. In the hall I would have good light and a dirty-clothes chute to the laundry in the basement, also a dirt chute to the furnace room like the one in the kitchen.

This house should have a porch across the front side of the house at least ten feet wide, with one post at each end to make the arch effect, and a porch on the back side of the house to suit the taste of the builder. I would figure this from the woodhouse along the end of kitchen. Could use the room above the wood house for a screened-in sleeping-room.

I would have running water in at least two bedrooms, the kitchen, laundry and cellar.

I hear someone say, "Do you know what such a house costs?" Yes, I do. I have built three of my own and finished them in genuine oak, and will say that they cost a farmer less than they cost city people, and a farmer needs the above kind of a house more than the city people.—Charles T. Schmieding.

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These conditions are commonly considered the most difficult for Alfalfa production.

We believe this Monroe County Alfalfa is the best strain of Common Alfalfa grown anywhere and that it is thoroughly adapted to Michigan conditions.

For further information write us for our pamphlet or write the Farm Crops Department M. A. C., East Lansing, for their literature.

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Olie Falk, So. Cal., writes: "Your Everbearing Tomato is a wonder. I had them last year from early spring until two weeks before Christmas." To introduce to you our Northern Grown, "Sure-Crop" Live Seeds, we will mail you 125 seeds of Condon's Giant Everbearing Tomato and our BIG 1923 Garden, Farm and Poultry Catalog. Tells how, when and what to plant for pleasure and profit. Send Postal Today. WRITE TODAY.

CONDON BROS., Seedmen
Rock River Valley Seed Farm
ROCKFORD, ILLINOIS

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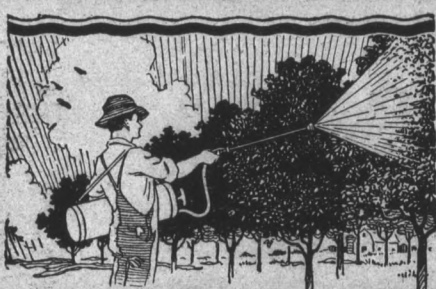
THE MOST PROFITABLE ONION OF ALL for the middle west. An enormous yielding, big, sweet and easy to grow from seed. Send for my Seed Book and "Seed Sense". They're both free and will tell you all about these onions and how to grow them. Remember, all my seeds are tested and will really grow. "Your money's worth or your money back" is the way I do business. Write me.

HEURY FIELD SEED CO., Dept. 7
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for testing, finest quality. Prices on our wholesale plan saves money. Also full line of Field Seeds. Our new freight saving plan means big savings. Catalog FREE.

Galloway Bros. Co., Dept. 187
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For Every Kind of Spraying

This handy sprayer fills the bill—sprays fruit trees, gardens, flowers, shrubs, vegetables, grapes, berries. For whitewashing poultry houses, cellars, fence posts, and trees—for spraying disinfectant, fly spray, carbolic in poultry houses and stables—for washing windows, automobiles and buggies.

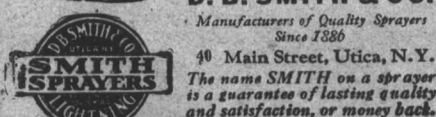
SMITH BANNER
No. 22 BANNER
COMPRESSED AIR SPRAYER

is made right—strong, efficient and handy—designed to do the work as it should be done. No effort at all to use it. A few strokes of the pump compresses air to discharge contents of the tank—carried on shoulder strap or by handle—handy nozzle, opens and cuts off instantly—throws long distance fine mist or coarse spray.

Ask your dealer to show you this sprayer—examine it—you will be surprised that it can be sold at so low a price—Don't accept a substitute—there are imitations but only one No. 22 Banner—insist on getting the best—most hardware and implement dealers carry them—if yours does not, write us and we will see that you are supplied. Send for free catalog of complete line.

D. B. SMITH & CO.
Manufacturers of Quality Sprayers Since 1886
40 Main Street, Utica, N. Y.

The name SMITH on a sprayer is a guarantee of lasting quality and satisfaction, or money back.



SPRAY FRUIT TREES

Destroy fungi and worms; insure larger yields of perfect fruit. 35th successful year.

STAHL'S EXCELSIOR SPRAYING OUTFIT PREPARED MIXTURES

20 models. Catalog containing full treatise on spraying FREE. Reduced prices.

Wm. Stahl Sprayer Co.,
Box 828
QUINCY, ILL.

No Farm Cure-Alls

(Continued from page 213).

"What other industry is expected to get along on a rate of return as low as five or six per cent?" Mr. Dunn asked his hearers. Doubtless he did not look for a reply, but from all parts of the room came cries of "The farm! the farm!"

"All right," shouted Mr. Dunn. "That shows the railroads and the farmers are in the same class."

The conditions necessary for a permanent agriculture for the United States were outlined by Eugene Davenport in his address given Wednesday night. To have a permanent agriculture we must build for at least one thousand years, said the speaker. We must plan to keep our land as fertile one thousand years from today as it is now. The fertility question every nation must settle for itself or else go out and fight for new land, if it expects to continue. Every twenty years, on the average, land changes hands. Even though a good farmer who is interested in maintaining the fertility occupies a piece of good land today, the next occupant may be a "land robber."

Increased Land Prices in Iowa.

The tendency toward tenant farming was deplored by Dr. Davenport, who said that unless the public is willing to pay prices sufficiently high to permit young men to buy and pay for farms within a period of twenty years, most of the good land in the United States will fall into the hands of a class of landed aristocrats, who will reap the return from the land, although they may be in idleness themselves.

Dr. Davenport described the land craze in Iowa, where land which before the war sold for \$200 or \$300 an acre now sells for as high as \$900 an acre, and declared that it is due in great part to the influence of the men of wealth who desire to own land, no matter what the price, and to the land speculators. Because of the inflated land values, it is becoming more and more difficult for a young man to buy and pay for a farm. The young farmers therefore are becoming tenants.

Permanent Agriculture is Public Question.

The sad part of the whole situation is the effect of tenancy upon the land fertility. Dr. Davenport advocated that individual farmers be educated to the need of putting back on the soil as much as they take away from it.

"The matter of a permanent agriculture is a public question rather than a farmers' question," he said. "We must solve it by individual effort—and can't get anywhere with public ownership." "The Boobs for the Towns" was the slogan put forth by President Friday in his second address, "Rural Culture," on Thursday evening, February 1. "The sooner those people who don't want to use efficient methods move to the towns, the better it will be for all," he declared. "The more people there are in the towns to eat and buy, the better off we are on the farms."

"Rural culture," he said, meant that in the long run the farmer will not run to town every time he wants intellectual, esthetic or social enjoyment. Whereas now the farmers read city papers, edited by city men with city views, they ought to have at their disposal a rural press and a rural literature.

A Press Expressing Rural Ideas.

"The rural community must develop its own cultured," held President Friday, "and that culture must be one of repose and not sophistication, which is simply 'smart Alec stuff.' We must think our thoughts in our own way."

He launched into a discussion of the lowered cost of production program of the college and remarked that as soon

as reliable information concerning the market situation is to be had, a program of marketing will be put forth also. "You hear all sorts of things about the marketing system and what ought to be done to remedy it," he said. "It isn't that we know so much less than other people about marketing—we're simply more honest. I'll be jiggered if I'll say I know something about it when I don't."

Artistic Development in Rural Homes.

In reference to cooperation, President Friday called the agricultural college the greatest cooperative enterprise to be found. The cooperative principle ought to be applied also to ventures in rural press and rural schools, he maintained. "When the extension system is all ironed out," he said, "we'll have in every rural school a teacher who is a graduate of the agricultural college and who is agriculturally minded. I hope we may have consolidated schools on a scale even bigger than we have them at present."

"But the real essence of life is art. Do you suppose I'd be a college president if I could sing like Caruso, if I could act like Forbes-Robertson? Not for a minute. In the rural home we must go beyond home economics, beyond nutrition to artistic design. We must make the home attractive inside and out if we're going to have a real culture. We must have creative work that is not merely useful, but satisfies the thirst for true beauty. We must have in the rural centers, auditoriums and other adequate conveniences for social intercourse. We must have in those auditoriums good music. We must have a novelistic literature peculiar to rural life. We must make use of the principles of landscape gardening to beautify the country homes."

No Immunity for Hard Times.

"Will America ever take the place in the world's history that her wealth and economic power entitle her to? Not unless she develops an art and a literature that will give her a place along with Greece and Rome in the galaxy of nations. I propose that the rural community in its new-found culture shall achieve this place."

In describing the work of the joint commission on agricultural inquiry, of which he was chairman, Representative Anderson declared that no way was found by which the farmer might "eat his cake and have it, too." "We found no legislative panacea," he said, "to be applied like a mustard plaster as a remedy. If we had, there are so many people who prefer pills we'd have got only a partial result. We found no immunity from hard times."

Cost of Marketing.

"There are two factors that affect the profits of the farm. One is the cost of getting the products to market. But it is impossible to separate the costs of production from the costs of marketing. The farmer cannot control the factors of production. But there are some things he can control that govern the cost of getting his product to market. It costs more to sell at long distances than at short distances. It costs more to sell unstandardized goods than standardized goods. It costs more to sell perishable goods than non-perishable goods. It costs more to sell in small quantities than in large quantities. It costs more to sell many varieties than few varieties. It costs more to market a seasonal product than one which is produced all year round. It costs more to sell a product with a seasonal demand than one for which there is a year-round demand. It costs more to sell a product which the consumers do not know and recognize. It costs just

(Continued on page 243).



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SOLD DIRECT FROM FACTORY TO FARM

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A ROD
AND UP

Send for this See for Yourself The Big Cut in Fence Prices

Down go prices on the famous Peerless Fence, Gates, Steel Posts, Barb Wire, Roofing and Paints! Our new plan of selling direct from our three big factories, cutting out all "in-between" profits, has enabled us to cut our prices to you nearly one-half! This new plan of selling is one of the most important events from the farmer's standpoint of recent years—it means an enormous saving of money to farmers—it means the

Lowest Prices Ever Quoted

on Peerless Fence—Gates—Barb Wire—Steel Posts—Roofing and Paints. You pay only bed rock factory prices—all unnecessary profits have been cut out. Look at the low prices quoted here!

Peerless Farm Fence, Per Rod, 17 Cents

Steel Farm Gates, each.....	\$3.65	Lawn Fence, per foot.....	7 cts.
Barb Wire, 80 rod spool.....	\$2.47	Steel Posts, each.....	22 cts.
Roofing, 100 sq. ft. roll.....	\$1.25	Paint, per gallon.....	\$1.19

Our New Big Catalog is filled from cover to cover with bargains just like these—over 100 pages. Send and get this money-saving catalog today—see for yourself the money you can save—how our new Direct From Factory plan has cut prices almost in half. Remember the same high quality that has made Peerless Fence the undisputed choice of farmers for 25 years remains unchanged—nothing changed but the price. Peerless guarantee assures satisfaction.

Fill Out and Mail Coupon

Your name and address brings this wonderful book to you by return mail. You can't afford NOT to send for it—it will save you many dollars. Get the book and see how our 3 Big Factories save you money.

PEERLESS WIRE & FENCE CO.
Dept. 2820 CLEVELAND, OHIO
Factories at Cleveland, Ohio, Adrian, Mich. and Memphis, Tenn.
Prompt Shipments

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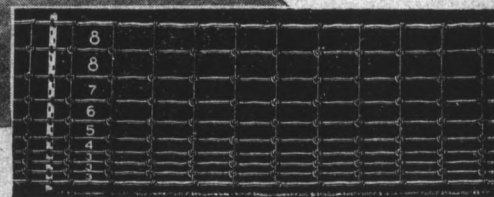
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Wire and
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Send me Free Peerless catalog showing direct from factory prices on Fence, Gates, Steel Posts, Barb Wire, Paints and Roofing.

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Town.....

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



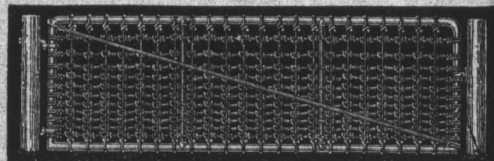
150 Styles to Select From

Peerless Farm Fence as low as 17c a rod. 150 styles—more than you will find in 20 Dealers' Stores—a fence for every purpose.



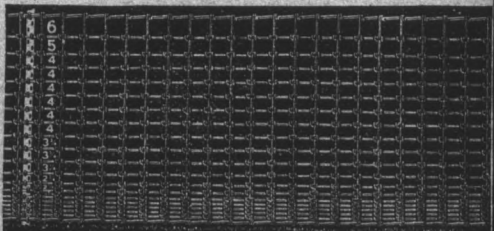
Beauty, Quality, Low Cost

Beautify your Home with Peerless Lawn Fence. Many different styles. New Factory to Farm prices makes the cost very small.



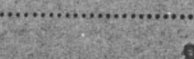
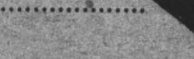
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Peerless Farm Gates are Non-Rusting—heavy Carbon Steel Frames—last a lifetime. Get our Catalog and see new low prices.



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Poultry Fence, all heights at prices that will be an agreeable surprise to you.





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Buy Fence Now!

Here's the
Lowest Spring Prices
WHY PAY MORE?

Just a few of the popular styles of Pendergast Fence are described and priced below. If none of these meet your requirements ask for my new illustrated Fence Book, showing complete line.

Guaranteed! Absolutely! Money back if you're not satisfied. Depend upon it. 1893 to 1923 is 30 years. That's how long I've been making good reliable fence for farmers—at factory prices, laid down at your station.

Our Style No.	Number of Line Wires	Height in Inches	Space Between Stays	Weight Per Lb. Per Rod	Delivered Price Per Rod in Michigan Ohio and Indiana
726 L	7	26	6 3/4	4.3	\$.23
832 L	8	32	6 3/4	5.1	.27 1/4
726	7	26	12	5.5	.28 1/4
7260	7	26	6 3/4	6.5	.32 3/4
8320	8	32	6 3/4	7.7	.39 3/4
939	9	39	12	6.9	.36
10470	10	47	6 3/4	9.7	.50

2 Point, Galv. Hog Barb Wire, 80 rod spools 3.90
2 Point, Galv. Cattle Barb Wire, 80 rod spools 3.65
Staples, 1 1/4 in. in 25 lb. sacks 1.35
Brace Wire, No. 9, Galv. Dead Soft, 25 lb. coils 1.25

All styles of fence are full 9 1/2 and 12 1/2 gauge, except 726L and 832L which are full 11 and 14 gauge.

REMEMBER
Pendergast
Sells Direct
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QUICK SHIPMENT NOW

Three big factories working night and day mean you can get your fence in a hurry. Get in your order quick before Spring Rush begins.

REMEMBER
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GUARANTEE PROTECTS YOU

You can't lose—but you can save money by getting Pendergast Fence at Pendergast prices. They are the lowest—compare 'em and prove it. New Illustrated Fence Book free, if you ask for it.

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GENTLEMEN:

Please ship me the following order freight-charges-paid-by-you. If I am not entirely satisfied with the goods I will ship them back freight collect and you are to refund every cent of my remittance and I will owe you nothing.

..... Rods of Style No. @
..... Rods of Style No. @
..... Spools of Barb Wire @
Enclosed find check for \$.....

My name is Railway Station.....

Farm Bureau Grows Stronger

(Continued from page 213).

eradication now being carried on by the State Bureau of Animal Industry, Week.

and the adoption of the five-year program opposed by the state live stock breeders.

7. Commended Manager Clark L. Brody and the heads of the several farm bureau departments for their successful management of the bureau during the past year and for the friendly spirit they have shown other farm organizations.

8. Endorsed the Great Lakes-to-ocean Waterway project, the Capper "truth-in-fabrics" bill, the Voight "filled-milk" bill, and the proposed constitutional amendment to prohibit the issuance of all tax-exempt securities in the United States, and commending the American Farm Bureau Federation for the vigorous support they have given these measures.

9. Strenuously opposed to anything which will make the eighteenth amendment to the federal constitution less effective, and strongly urged the rigid enforcement of the Volstead Act.

10. In favor of economy and efficiency in national, state, county and local government and of discouraging further bond issues that urge the adoption of the pay-as-you-go policy by the various governments.

11. In favor of a state income tax as the most just tax that can be established. Will assist in the initiation of the state income tax constitutional amendment with a \$4,000 exemption, and a progressive rate at the coming April election.

12. Condemned the practice of issuing tax-exempt state municipal bonds and pledged support to the Towne bill now pending in the state legislature to prevent the issuance of such tax-exempt bonds in Michigan.

13. Believe that the present corporation law was discriminatory against smaller corporations and in favor of larger ones and, therefore, favor a decrease of the minimum tax from \$50 to \$25, and a sufficient increase of the maximum limits so that the largest corporations would pay on the same basis as the medium-sized ones.

14. In favor of a two-cent a gallon gasoline tax in Michigan to raise the funds for interest and retirement of state highway bonds.

15. In favor of the present state tax commission and state board of equalization, and opposed to a reduction in the number of members on the state tax commission from three to one.

16. In favor of a reasonable regulation of commercial bus and truck lines and the increase of their licenses to provide more funds for highway maintenance and the limitation of their loads to the decrease of highway depreciation.

17. Opposed to abolishing present primary school fund.

18. Opposed to the creation of the office of county assessor.

19. In favor of transferring part of the work done by the State Department of Agriculture to the Michigan Agricultural College.

20. Heartily endorsed President Friday's program for promoting efficiency of Michigan agriculture, for the development of our home market.

21. Approved the action of Governor Groesbeck and the state administrative board for the purchase of Michigan flour and Michigan canned goods for state institutions, and recommended that the policy be extended to all agricultural products and manufactured articles.

22. Commended the purpose of the Agricultural College to study what products Michigan farmers can best raise for state markets, and expressed a willingness to cooperate in the es-

23. Recommended that efforts be made to secure more cooperation by the State Farm Bureau and the Elevator Exchange with the Michigan Millers' Association in order to secure a better and larger market for Michigan grain and the products of Michigan mills.

24. Heartily approved the appointment by Governor Groesbeck of Clark L. Brody as a member of the State Board of Agriculture, and endorsed Mr. Brody to succeed himself at the coming election.

25. Condemned the practice known as the "Pittsburgh Plus," which adds the freight rate from Pittsburgh to all steel products, and recommended to the state legislature now in session to adopt resolutions against this practice and to take other steps as may be advisable to end it.

26. Recommended some adequate reforestation program to be adopted by the state and urged that immediate steps be taken to conserve small trees on cut-over and re-planted areas which are unprofitable for other purposes at the present time.

27. Opposed to the passage of the "full crew" bill now before the senate, because it is an added and unnecessary burden on the people of the state.

28. Opposed to any action to nullify the primary election law and if such action is taken will see that a referendum vote is secured on the question.

29. Recommended a fifty-fifty basis for beet sugar contracts as agreed upon by the farm organizations of the state and the Owosso Sugar Company.

30. Opposed to the manufacture and sale of "filled milk," and heartily endorsed the nation and Michigan bills on this subject.

31. Urged that quail be placed on the song-bird list because they are friends of the farmer and deserve protection.

32. Favored the repeal of the Covert highway law.

33. Instructed the board of directors of the Michigan State Farm Bureau to continue pooling of wool for 1923.

34. Recommended that state awards for highway construction should be applied to paying the bonds of the several districts and that all highway funds coming back to the county should be under control of the board of supervisors.

35. Requested the legislature to regulate the sale of war material from the Charlotte warehouse so they may be available to all the people of the state. If control of such material is vested in the federal government, our representatives in congress are requested to assist in the above.

36. Petitioned the state legislature to enact laws to stop the practice of cutting young trees on all lands under state control. Also urged that the State Conservation Department cooperate with corporations, organizations and individuals in stopping this waste.

SHARE RENT IS MORE COMMON.

EXPERIENCES of farm tenants for the past two years has discouraged cash rent. Many tenants have had great difficulty in paying their rental obligations and a large number had to be given extended time to make adjustments.

In one county eighty-seven farms rented for cash in 1920. Today there is scarcely one of this number which is being handled on the cash basis. The tenants are afraid to engage themselves to a definite cash amount; hence the landlords have to meet the terms of the men who will take farms for a certain portion of the crops.



16
Old Time
Favorite Songs
\$2.98
For All
Eight Double-Disc
Full Size 10 inch Records

In The Gloaming
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Ben Bolt
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Love's Old Sweet Song
Kathleen Mavourneen
Comin' Through the Rye
My Old Kentucky Home
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Home, Sweet Home
Sweet and Low
Lullaby (Ermine)
Nearer My God To Thee
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Schubert's Serenade

Here are the songs that never grow old—the favorites you remember as long as you live, ballads that touch every heart. Just the music that should be in EVERY HOME. Eight full-size double face records—16 wonderful old time songs—quality guaranteed equal to highest priced records—All for only \$2.98. Can be played on any phonograph.

Send No Money. Try these records in your own home for 10 days. If not delighted the first costs nothing. Don't send a penny now. Pay postman only \$2.98 plus postage on arrival. Money back at once absolutely guaranteed if you are not more than pleased. Write postal or letter NOW.

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Only \$2
DOWN
ONE YEAR
TO PAY

\$44 Buys the New Butterfly Jr. No. 244
Light running, easy cleaning,
close skimming, durable. **EASY TO CLEAN**
NEW BUTTERFLY Separators are
lifetime against defects in material and work-
manship. Made also in four larger sizes up to
No. 51-2 shown here; sold on
30 DAYS' FREE TRIAL
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and more by what they save. Postal brings Free
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You don't risk a penny when you order this close skimming, new Improved Sattley Cream Separator from Montgomery Ward & Co. If you do not find it entirely satisfactory, you can send it back at our expense and get your money. We will let you test it, prove it on **30 DAYS FREE TRIAL**

See for yourself how the Extra cream you get soon pays for the Sattley. Made and guaranteed by the Oldest Mail Order House in the World, and sold direct to you at our new **LOW FACTORY PRICES**

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Spring Hill Nurseries
Box 211 Tippecanoe City, (Miami Co.) Ohio

POTATO ASSOCIATION GROWS.

MEMBERSHIP in the Michigan Potato Producers' Association increased from 136 to 553 during the last year, it was revealed by the report of H. C. Moore, secretary of the association. Altogether 3,196 acres of potatoes were inspected for certified seed and 2,429 acres qualified for certification. Certified seed produced was 315,758 bushels, of which 267,000 bushels will be offered for sale—118,000 bushels through the Michigan State Farm Bureau. Michigan was third in the United States in production of certified seed during 1922, having grown one-sixth of the total supply. There is still room for improvement in eliminating frozen potatoes, keeping varieties separate and grading accurately, according to Secretary Moore.—H.

JUDGING CONTEST AT FARMERS' WEEK.

BOYS and girls who attended Farmers' Week were to be seen at many of the meetings, but no spellbinder had half the attraction for them that the high school students' judging contests held. There were 180 entrants in the grain judging, 110 in the live stock judging, sixty in the poultry judging and eighty in the fruit judging. Results of the fruit judging were the earliest to be compiled. Bangor High School took first place with 562 points out of a possible 600. Allegan was second with 507, while St. Johns followed closely with 506 for third. Plymouth placed fourth with 479 and Benton Harbor fifth with 445. Other schools entered were Hillsdale, Ypsilanti, Ionia, Traverse City, Cass City, Paw Paw, Holly, Howell, Hazlett and Buchanan.—H.

MUCK CROP EXPERIMENT VALUABLE.

MR. M. A. WRIGHT, of Gagetown, Huron county, in his talk before the Michigan Muck Farmers' Association, said that his onion crop in 1922 would have been increased by 2,400 bushels if the information he obtained from the muck crop experiments conducted on his farm by the soils department of M. A. C. had been available last spring. Dr. Paul M. Harmer, the college muck specialist, gave the results of the muck experimental work on general crops and truck crops on twenty-one farms during 1922.—H.

A TON LITTER CONTEST.

A "TON-LITTER" contest to be held next summer was announced at the meeting of the Michigan Swine Breeders' Association. The purpose of the contest will be to stimulate efficient feeding for pork production. Litters weighing the most at the end of 180 days will be awarded prizes. The animal husbandry department of the college will cooperate with the breeders' association in putting on the contest.—H.

A GOOD POULTRY RATION.

A BALANCED ration for poultry which finds favor in a number of other states was recommended by D. E. Hale, of Chicago, in his talk before the Michigan Poultry Association, as follows: Equal parts of wheat and corn, as a scratch feed, and a mash of two parts ground oats, two parts bran, three parts millings, two parts ground corn and two parts meat scraps. The corn content of the mash may be increased by one-third for winter feeding. Eight to ten per cent of the meat scrap may be replaced by skim-milk or buttermilk.—H.

Says Sam: It's those who stick that turn the trick.



Have you ever looked *inside* a rope?

Look for the "Blue Heart," your assurance of safety and strength

Rope, many times, is a life-line on your farm.

Children hanging head down on swings and trapezes, you and your hired men on rope scaffolds, rope ladders, under swinging fork loads of hay, on rope windlasses.

Play safe when you buy rope for such uses. Don't take a chance on unknown rope.

Put your trust in the guaranteed *excess strength* of H. & A. "Blue Heart" Manila Rope. Spun from pure manila fibre, the toughest rope fibre grown, H. & A. "Blue Heart" Manila Rope is *the strongest rope made*. It is guaranteed to exceed the strength of the U. S. Government standard. (See guarantee below.)

GUARANTEE

H. & A. "Blue Heart" Manila Rope is guaranteed to equal in yardage and to exceed in tensile strength the specifications of the U. S. Government Bureau of Standards. Any H. & A. "Blue Heart" Manila Rope found to be not as represented will be replaced.

And yet H. & A. "Blue Heart" Manila costs no more than many inferior ropes.

Be sure you get this safe, extra-strength rope when you buy. You can tell the genuine, guaranteed H. & A. "Blue Heart" Manila Rope by grasping it in your hands and untwisting the strands. Running through the center of every foot of H. & A. "Blue Heart" Manila Rope is a small blue thread—the "Blue Heart"—our trade mark. Before you buy rope, untwist the strands. If the blue thread is there, you will have in your hands a genuine guaranteed H. & A. "Blue Heart" Manila Rope—the strongest rope made.

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

Special Offer

The coupon below with 40c will entitle you to our new style combination halter and tie rope made from H. & A. "Blue Heart" Manila Rope—weather resisting and much stronger than ordinary halter rope or leather. It is 1/2-inch in diameter, and fitted with two snaps and two adjusters that cannot slip when in use. It is worth a great deal more than the low price charged for it, and is offered at cost to introduce to you the great strength and wonderful wearing qualities of H. & A. "Blue Heart" Manila Rope.

If your dealer does not yet carry H. & A. "Blue Heart" Manila Rope and cannot supply you with this special halter, fill out the coupon below, and mail it to us with 40c in stamps and your dealer's name, and one of these special halters will be sent you prepaid.

Gentlemen: Enclosed is 40c in 2c stamps for which please send me one H. & A. "Blue Heart" Manila Rope special offer halter.

My name.....

Address.....

My dealer's name.....

Address.....

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Evenly spun from the best fibres of full yardage, great strength, and used from coast to coast by farmers who claim it is never cut by insects.

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H&A "Blue Heart" Manila Rope

EVERGREENS Hill's Hardy Tested Varieties
Fine for windbreaks, hedges and lawn planting. All hardy, vigorous and well rooted. We ship everywhere. Write for free Evergreen book. Beautiful Evergreen Trees at moderate prices. A. Hill Nursery Co., Box 230, Dundee, Ill.

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When you buy from Jim Brown you get Direct-From-Factory prices—no in-between profits added; this extra saving is kept right in your own pocket. Furthermore Jim Brown pays the freight and I ship from 3 big factories at Cleveland, Ohio, Adrian, Mich., Memphis, Tenn., also from warehouses at Kansas City, Mo., and Davenport, Iowa. The low Direct-From-Factory prices are all you pay—not one extra cent is added—Jim Brown gives you REAL Factory prices and satisfaction guaranteed. Write and get my Bargain Book NOW.

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Buy handsome, thrifty trees grapevines, berry bushes, roses and shrubs from your own state and insure prompt receipt in vigorous condition. Kalamazoo County is famous for hardy, well-rooted stock. We guarantee healthy and true to name. You ought to plant more fruit trees this season. Special rates if you order now. Our handsome catalog of dependable trees, free for the asking. CELERY CITY NURSERIES Box 200, Kalamazoo, Mich. Direct to You, At Wholesale Prices

Please Mention The Michigan Farmer When Writing to Advertisers

News From Cloverland

By L. A. Chase

COOPERATES IN LAND-CLEARING.

THE Upper Peninsula Development Bureau has made an appropriation of \$1,500 to assist in the land-clearing campaign of the Michigan Agricultural College in the peninsula, this season, and to assist and promote boys' and girls' club work. The major portion of this amount will be used to send winning club members to the National Dairy Show, next fall.

GOGEBIC CLEANS OUT TUBERCULOSIS.

AS a consequence of the anti-tuberculosis campaign in Gogebic county as a result of which practically all cattle in that county were tested. Gogebic county is included in the order of the State Department of Agriculture excluding from importation into the county all cattle not from an accredited herd and previously tested by an accredited veterinarian. The order is effective as from January 1, 1923. The previous tuberculin test must have been applied not above sixty days before importation is sought. The rule does not apply to cattle intended for immediate slaughter, provided such are separated from other cattle in the county. All cattle offered for sale in Gogebic county for breeding or dairy purposes must be certified as free from contagious or infectious disease in accordance with three regulations established by the State Department of Agriculture. Gogebic county is the only Upper Peninsula county affected by this order.

FARMERS' ASSOCIATION ACTIVE.

THE business men of Ewen, Ontonago county, it is announced, will lunch the farmers of the Ontonagon Valley Farmers' Association at that place, February 17. At the monthly meeting of the farmers' association, on January 20, a cow-testing association was organized. Members of the association made request that the county agricultural agent, Mr. W. M. Clark, procure them pure seed grain for this spring's planting. The association has been active in pushing for lower freight rates between the southern and northern sections of the county, and assurances have been given, it is stated, that the South Shore Railroad will comply with their wishes and thus avoid a formal hearing before the public utilities commission at Lansing. It now remains to see what the Chicago, Milwaukee & St. Paul Railway will do. The cow-testing association contains twenty-five members and Mr. W. C. Gale, of Atlas, Michigan, has been engaged as tester. Mr. Gale is M. A. C. trained, and was connected with a big dairy farm near Flint, at one time, it is stated.

MEETING OF FAIR SECRETARIES.

IN response to the efforts of Mr. E. G. Amos, assistant state leader of county agents for the Upper Peninsula, there will be a meeting of the secretaries of the fifteen fair associations of the Upper Peninsula on February 20. The Marquette county board of supervisors has made an appropriation to cover the expenses of this meeting, it is stated. A local committee on arrangements has been named. The program for the conference includes discussion of such topics as the fair as an educational institution, how shall we advertise our fairs, the arrangement of exhibits, boys' and girls' clubs,

competitive community games, judging as an educational feature, and financing the fair.

RUSSIA INCREASES WHEAT ACREAGE.

ACCORDING to reports from the soviet government of Russia there has been an increase in the acreage of wheat planted in that country during the past season as compared with the year of 1921. The total acreage in the districts reported upon show a jump from 7,158,000 acres to 8,358,000 acres. In the largest district, that of Ukraine, there is a decrease of nearly half a million acres. Others have increased enough to make up this shortage and make the substantial gain shown above.

SHOOTING A DITCH.

(Continued from page 211).

ous because of a change in the soil conditions which may necessitate the change in spacings. After each shot the conditions should be noted.

Usually for the ordinary drainage ditch on the farm one stick of dynamite to the hole is sufficient, except where stumps or stones have to be moved and then an extra stick may be necessary. A general figure for ditching is five pounds of dynamite to the rod. This will give a ditch two to three feet deep and four and one-half to five feet wide. For larger ditches an increase in the load is necessary.

Naturally, every one is interested in the cost of blasting ditches. The cost will vary according to the soil, moisture content and the amount of obstructions in the course of the ditch. For a series of thirty-five ditches blasted in 1920 the average cost was twenty-five cents per cubic yard, with an average depth of 3.4 feet and an average width of 5.5 feet. On a ditch blasted through wet sand on the C. I. Cook farm at Menominee, Michigan, the cost was nineteen and a half cents per cubic yard. This ditch was three-fourths of a mile long, five feet deep and on an average width of seven feet. Two tons of fifty per cent straight nitroglycerin dynamite were used, costing \$900 and the labor cost \$100. Mr. Cook says, "the big advantage we see in dynamiting ditches is the speed with which the ground can be covered. It does away with the necessity of hiring a large crew of men for a long period of time." On the Upper Peninsula Experiment Station Farm at Chatham, a ditch 968 feet long, 1.8 feet deep and 5.4 feet wide, cost \$44.99. One man blasted this ditch in twelve hours and used 200 pounds of fifty per cent straight nitroglycerin dynamite. From this it can be seen the speed of the work. One farmer remarked that it would take six men and teams all summer to dig the ditch on the Cook farm, where it took dynamite about five days. Several other ditches have been blasted during the summer with about the same results.

The same precautions for handling dynamite in stump blasting apply to ditch blasting. If the cap and fuse method is used particular attention must be given hang-fires. A hang-fire under a stump is dangerous, but the hang-fires in ditch blasting are far more treacherous and no one should try to investigate a hang-fire for some time. In case the fuse is lying in water plenty of soap, tallow, paraffin or hard grease should be used to keep out the water. Use plenty of fuse to give yourself time to be at least two hundred feet from the ditch.

MICHIGAN APPLE SHIPMENTS.

APPLE shipments by freight or express or by both to points outside of the state amounted to 5,000 cars, according to report made by O. K. White to the commissioner of agriculture. This does not include the amount taken out of the state by motor truck, which in Mr. White's opinion, nearly equals the 5,000 cars.

The recorded shipments of peaches was 1,573 cars, while that of grapes was 5,712. More than 500 cars of muskmelons were sent to Chicago, while several hundred other cars were sent to points in Ohio and Indiana.

FARMERS ARE CENSORED FOR NEGLECTING LAND.

IN Sweden a farmer can be reprimanded for neglecting his land. Over eleven hundred cases of abusing farm land by neglect to cultivate it properly, had been dealt with by the governors of the provinces during the last four years. There has been much discussion as to what degree of carelessness would be called neglect, but the Swedish cultivation extension committee came to the conclusion that whereas land was overgrown with weeds correction was necessary. When a farmer's fields produce much less than his neighbor's, his case is investigated and he is given a reprimand if the committee thinks it necessary.

CROSS BETWEEN TURKEY AND CHICKEN.

A NEW development in the poultry industry is a cross between a turkey and a chicken. This high-bred has been propagated for four years by a California breeder. He calls the fowls "turkens," and now has quite a large flock of them.

The male bird has the gobbler neck and other resemblances of the turkey. The female has a turkey head, otherwise looks like a chicken. In color they are generally red and when full-grown they weigh about nine to thirteen pounds. Their eggs look much like those of the Rhode Island Reds and they weigh about twenty-six ounces to the dozen.

It is claimed that the turkens will lay about 200 eggs per year. The eggs hatch in twenty-one days.

FARMERS AND BUSINESS MEN GET TOGETHER.

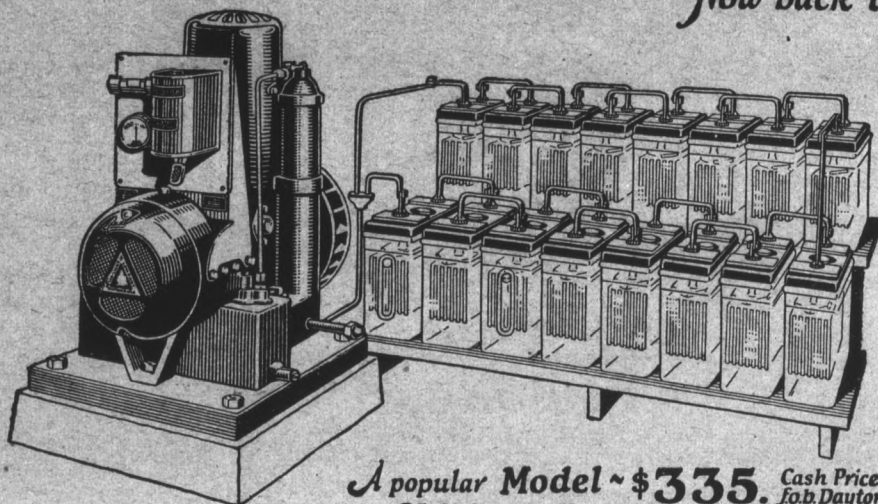
PERHAPS the most popular of the new features of the 1923 Farmers' Week was the series of joint luncheons held in the swimming pool room of the gymnasium, in which four business men's organizations of Lansing met with an equal number of farmers' organizations. On Tuesday, January 30, the Lions' Club met with the Michigan Improved Live Stock Breeders' and Feeders' Association. On Wednesday, January 31, the Exchange Club met with the Michigan Crop Improvement Association. On Thursday, February 1, the Kiwanis Club met with the Michigan Potato Producers' Association. On Friday, February 2, the Rotary Club met with the Michigan State Farm Bureau.

LIVE STOCK EXCHANGE SHOWS PROFITS.

THE Michigan Live Stock Exchange realized a surplus of more than \$10,000 in the first seven months of business handled through its cooperative commission house in Detroit. The Detroit Commission House was opened last June as a direct outlet for the produce of 120 live stock cooperative associations. This commission house was said to have handled about thirty per cent of the live stock sold through the exchange in Michigan since June.

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We suggest that you get in touch with the Delco-Light dealer in your vicinity to find out what it would really cost to install complete the Delco-Light fitted to your needs.

If desired, you can buy your Delco-Light on easy terms.

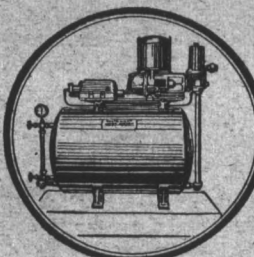
DELCO-LIGHT COMPANY, DAYTON, OHIO

Subsidiary of General Motors Corporation

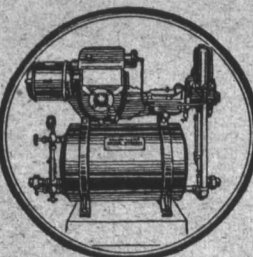
Also manufacturers of Delco-Light Water Systems, Delco-Light Washing Machine and Frigidaire, the Electric Refrigerator. All products made for 32 and 110 volt Direct or Alternating Current Service.

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E. H. Walker Co.	212 N. Erie Street	Toledo, Ohio

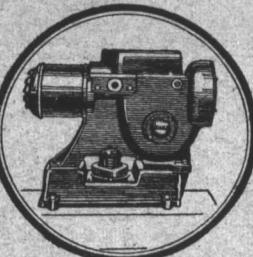
Owners of Delco-Light Plants can avail themselves of the conveniences offered by Delco-Light Products, which are made for AC or DC current for use in country or city homes.



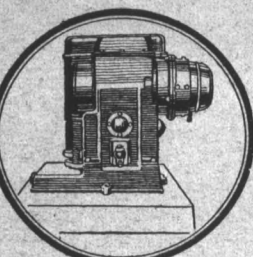
Delco-Light Shallow Well Pump \$125 f. o. b. Dayton



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Delco-Light Washing Machine \$125 f. o. b. Dayton

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NEXT to its deadly certainty, the best thing about Hall's Nicotine Sulphate is its very low cost. It can be diluted with water 800 to 1000 times to make a deadly spray costing less than 2 cents a gallon.

Hall's Nicotine Sulphate contains 40% pure Nicotine—the most powerful contact poison known. Being a vegetable extract, it will not harm fruit, flower or foliage. But it will wipe out aphids, thrips and similar insects. Use it next season.

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10 lb. tins — \$13.50
2 lb. tins — 3.50
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1 oz bottles — .35
10 lb. tins make
800 to 1000 gallons
of spray.

Plant A Strawberry Bed

It Means Good Eats and Profits for You

By B. W. Keith

DID you ever experience the pleasure of a strawberry bed where you could pick fresh, juicy, sweet strawberries for your table every day during the berry season, and have plenty to can, preserve and jelly for winter use? The same can be had with very little expense and care on your part.

The time, expense, and space required to grow all the strawberries your family can possibly use is insignificant compared with the pleasure and profits to be gained. From a plot of ground forty by thirty-five feet, with just average care, can be grown a sufficient amount of strawberries to supply the needs of a family of seven. And with a little special care, a great many extra quarts can be produced and sold at a good profit. Few people realize the big expense of having to buy all the strawberries needed for their tables, while at the same time they do not realize how cheaply this same amount and many more berries can be grown. The pleasure of having all the strawberries your family can use is yours by setting a few strawberry plants this coming spring; but, just as sure as you do not grow your own strawberries, you will never have all you actually need.

Fertilize and Cultivate the Plot Well.

Two hundred fifty strawberry plants will be sufficient to set the plot of ground forty by thirty-five feet mentioned above. They should be set in rows three and one-half feet apart and forty feet long, requiring twenty-five plants per row. If this plot of ground is too large, the 250 plants can be reduced accordingly. These 250 plants should not cost over \$3.00, and the time required to prepare the soil and set them should be very little. Prepare the soil as early as possible in the spring, applying a good liberal covering of thirty-five bushels of well-rotted barnyard manure. Thirty-five bushels will be sufficient for the plot of ground mentioned. If possible, this should be applied some time before plowing. Plow the manure under seven inches deep; and, while the ground is still rough, apply seven to ten bushels of fine, well-rotted barnyard manure and then harrow and work the soil until this top dressing is well mixed with the soil. Remember, the soil should be made very firm, which is accomplished by aid of a roller or pulverizer. If it is not packed firmly, it will not hold the moisture as it should; so consequently, your strawberry plants will not make the growth they should during the following summer. You will be well paid for all the time you spend in thoroughly preparing your soil.

Watch the Growth of the Runners.

Set the plants about eighteen inches in rows spaced three and one-half feet apart. Make a V-shaped hole with a common spade, spread the roots as much as possible in this hole and then pack soil firmly about them with the foot. The crown, or bud, of the plant should be just even with the surface of the soil.

After planting, keep the soil well stirred about the plants, keeping down all weeds. Shallow cultivation, not over two inches, should be followed. Keep all blossom buds picked off as they will devitalize the newly set plants and prevent the formation of runners.

About three weeks or sooner after setting, the plants will begin to throw out runners, and on these about every nine to sixteen inches will be formed the new or runner plants which will throw out roots from their underside and thus become established in the soil soon to become self-supporting.

But before they have taken root firmly in the soil, all their source of supply must come from the mother plant through the runner on which it is formed, therefore they should be caused to root as soon as possible. In taking root, these runner plants should not be allowed to form thickly between and along the sides of the mother plants. Place them, before they take root, so that they will not average closer than five inches apart forming a row twenty inches wide. After you have your twenty-inch row formed, all runners thereafter should be cut off and the plants you have in your row allowed to grow and become as vigorous and thrifty as possible. They are the plants that will produce berries for you the following spring, and if you space them as mentioned above, they will be vigorous and thrifty enough to set and produce large yields of fancy berries.

Put on an Overcoat in Winter.

After the twenty-inch row is formed, cultivation and hoeing should not cease, but be kept up often enough to keep the ground mellow and all weeds and grass from between the rows and plants. In the late fall after ground freezes two inches deep, mulch the rows with some coarse material free from weed seed, such as straw, marsh grass, potato vines, etc. Place the same five or six inches deep on the rows and if the supply is sufficient, some should be placed between the rows in the spring shortly before the danger of frosts is over, part of the mulch on the rows should be removed and placed between the rows. The blossom stems will come up through the mulch that is left on the rows and when the berries form and ripen, they will be prevented from coming in contact with the soil. The remaining mulch will also keep down weeds and preserve soil moisture.

TO CONTROL STRIPED BEETLE.

HERE is my recipe for taking care of the striped vine bug, the squash bug and the onion maggot. I save all fine ashes and soot from the stove and pipe during the winter, keeping them dry. Then I take a syrup pail, put a stout bail on same and punch about two holes in the center of the bottom of the pail with a twenty-penny spike. I have used this dope for twenty-five years and never lost by it. I have raised onions on the same ground for four years, and the fourth crop was the best.—N. M. Crout, Gladwin Co.

PRIZETAKER ONIONS FROM SEEDS.

OUR winters are too long to leave us time enough to grow the Prize-taker onions like we do the ordinary varieties, but this fine large onion is so much sweeter that it pays to go to some trouble to give it a longer season. When our winter is waning we can plant the seeds in a box in the house or in a mild hot-bed outside, or even in a frame made against the sunny side of a building, and get the plants the size of a slate pencil by the time we could sow the seeds outside. The seedlings in the boxes or beds will be so close together that the work of weeding and cultivating will be light, and this fact will make the labor of growing no greater than if we sowed the seeds where we intended them to grow. Onions grow even easier than weeds, and will transplant without loss. The plants are almost as easily set out as sets are planted, and the onions are large enough to make hand-weeding unnecessary.

Always Mention The Michigan Farmer

TO INCREASE POTATO PRODUCTION.

INCREASE in potato production per acre is being fostered by the extension division of M. A. C. in three ways, potato growers were told by J. W. Weston, extension specialist. These are the use of certified seed, spraying and the use of proper fertilizers. On 1,585 farms the use of certified seed gave an average increase in yield of forty-one bushels per acre, while spraying five times gave a further increase of fifty-seven bushels. Fertilizer demonstrations held in twelve counties also showed substantial increases.—H.

THE COLLEGE PARADE.

DESPITE the rain and slush, thousands of spectators crowded along the line of march when "M. A. C. went on parade." The college reserve officers' training corps, with its infantry, cavalry and artillery units, led the procession. The various divisions of the college were represented by interesting and spectacular floats. A number of the animals that won prizes at the International Live Stock Show were included in the live stock section. The parade was more than a mile in length.—H.

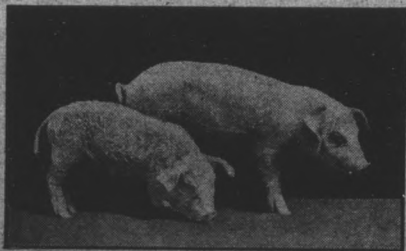
FRUIT SOCIETY TO MEET.

THE Michigan State Horticultural Society will hold its annual pre-spring meeting at Paw Paw for three days, from February 28 to March 2. This is establishing a new precedent of the mid-winter meetings, as former meetings have been only two days in length.

At a recent meeting of the executive committee they took favorable action on the recommendations of the State Bureau of Markets regarding the proposed changes of the Braman apple grading law. The legislature was asked to amend this act so as to incorporate an "off color" standard grade in its provisions.

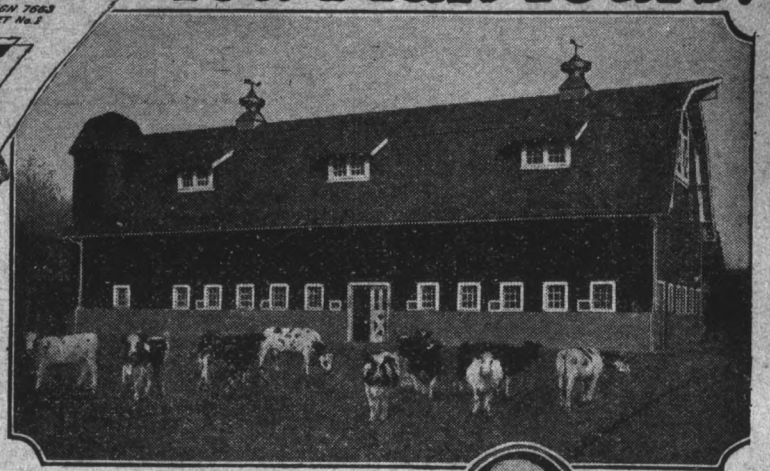
DATA ON MICHIGAN AGRICULTURE.

THE annual report of the Michigan Crop Reporting Service, just from the press, in addition to the usual data published annually, contains complete county figures on the acreage of all crops, numbers of bearing fruit trees and numbers of live stock. This was made possible through the statistics on agriculture collected by township supervisors early in the season, and which were compiled in the office of the Michigan Cooperative Crop Reporting Service in addition to its regular duties of preparing monthly crop estimates. Care was taken to incorporate in the bulletin all of the county figures revealed by this state census, as it is the only source for county agricultural statistics. These county figures are an important part of the basic information utilized by the State Department of Agriculture, the agricultural college and experiment station, the State Farm Bureau, other cooperative farm agencies as well as the public in general, in the prosecution of their respective functions for the up-building of Michigan agriculture.



Sister Pigs Fed the Same, Except the Smallest One Got No Milk.

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There are ways to make every foot of lumber count, methods of building that save a lot of carpenter work. Floor space and mow room can be economized or wasted. Some types of construction are more economical than others, more healthful for the herd, conducive to greater production. Hundreds of hours of barn work can be saved every year—or not saved—depending on the plans.

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When you figure on any barn improvements, regardless of what they are, you should have a copy of this Loudon Barn Plan Book at your elbow. In case any special information is desired our Barn Plan Experts will further assist you by working out suggestive plans and sending you blue-prints, free of cost, taking into account your own particular conditions and requirements. They can also show you how to include ideas of construction and arrangement which, with a moderate investment in labor-saving barn equipment, will enable you to cut out fully half your barn work and greatly increase the earning capacity of your herd.

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William Loudon's long and useful lifetime has been devoted to designing and building equipment that saves time for farmers and takes drudgery out of barn work—that increases the comfort, health, and productivity of cows. It has been his pride to build this equipment so practical, so convenient and so strong that it lasts as long as the barn stands and gives years of daily, satisfactory service.

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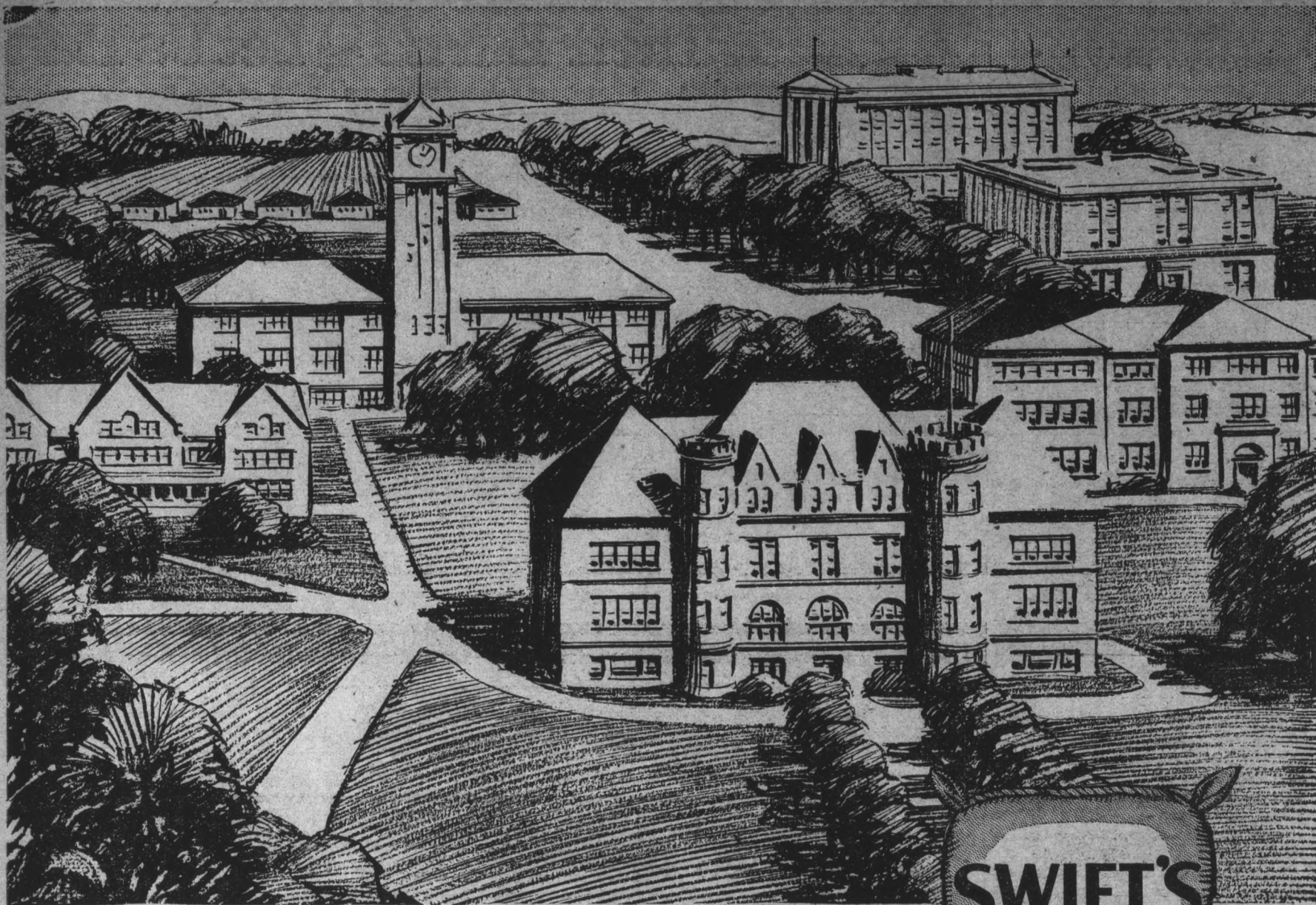
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Back of the present-day farmer is an institution—the State Agricultural College and the State Experiment Stations—which is helping you, directly or indirectly, to build up your farm and to make your farming operations more profitable.

Its buildings have been built with state money. Its scientific men are paid by the state. Its experiments, its soil and crop researches, its discoveries, are made in your behalf. It has trained your county agent, and many of the young men and young women of your community, in the science of profitable agriculture.

Make use of it yourself

Make use of it—it's yours. Send to it for crop bulletins. Refer your farming problems to it. Get its advice regarding the crops and methods of fertilization which will pay you best. Plan to send your sons and daughters there—that they may return equipped to make the old farm pay greater profits.

In your county is another factor—the Authorized Swift Agent, the man or firm selected by Swift & Company, after investigation, to supply the Swift's Red Steer Fertilizers required by your com-

munity—who wants to help you make farming more profitable.

With information derived from the experiment station, he will advise with you regarding your crop and soil requirements. He will help you to grow more on less land, to increase your acre yield, to make the extra money required to send the boys to college or to give to your family the comforts and conveniences they would so much enjoy.

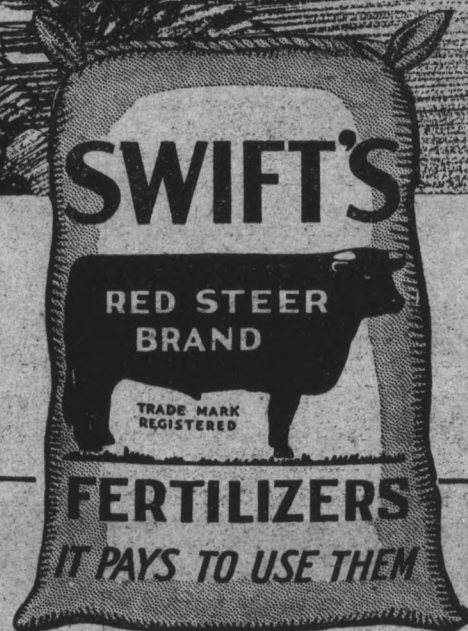
Get acquainted with this man

He recommends Swift's Red Steer Fertilizers because he knows "it pays to use them"—and because he knows that back of every bag he sells are the vast resources, the supplies of raw materials, the manufacturing skill, the chemical and agricultural knowledge, of Swift & Company.

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Come in—you and I will decide on analyses of Swift's Red Steer Fertilizers which meets the needs of your soil and crop and conforms to the list selected by our Experiment Station.

asa
Authorized Swift Agent

"IT PAYS TO USE THEM"

WORLD EVENTS IN PICTURES



Jackie Coogan watches his dad sign a \$500,000 contract for producing movies with the Metro people. Jackie's mother is at his left.



The American doughboys in the Y. M. C. A. "hut" at Ehenbreitstein, known as the Gibraltar of the Rhine. These boys have all left for home.



Only confederates under arms. Co. B, Nashville Tennessee, part of Tennessee National Guard.



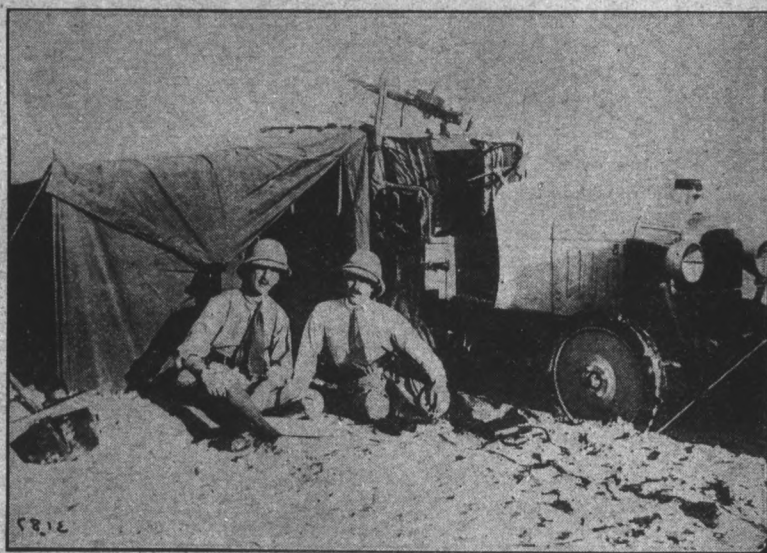
A mass meeting of Germans by Bismarck's statue in Berlin in protest against the French occupation of the Ruhr. The monument in the rear is the Victory column.



Bobbie Hearn and Hilda Ruckert in an "anti-classic" skating stunt at Saratoga Springs.



The French marching through the streets of Essen in the Ruhr district, upon their taking possession of that important German industrial center.



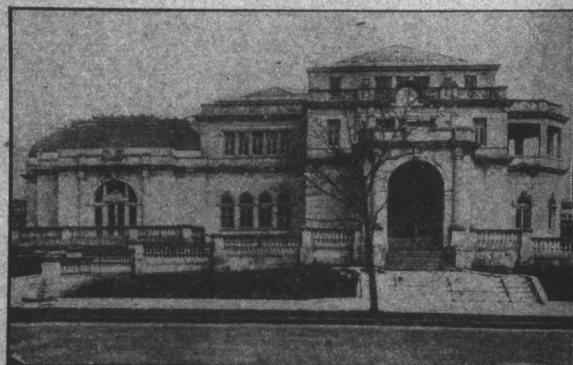
Autoists are replacing camels in travel on the Sahara Desert. Four French-made machines with caterpillar traction made the trip in twenty-one days.



The largest and smallest chickens ever shown at the New York Poultry Show. One weighs 12 ounces and the other 18 pounds.



Doris E. Hyde, three years old, who was adjudged the most beautiful child in Canada.



House which Mrs. J. B. Henderson, wife of the late senator from Missouri, offered to government for the vice-president's residence.

The Adventures of Hiram Masters

By LEROY W. SNELL

UPON the morning of the wedding, Doctor Stoddard left his little office and walked slowly along the village street. It was a warm, sunny morning and the dry-weather flies were pouring forth their seething song from the tree tops. The streets at this hour showed but little activity. An occasional farm wagon heavily laden, rumbled into the village and on through to the elevator or mill beyond. A crowd of boys passed with fish poles and tomato cans of worms, and across the street Miss Abigail Holmes fluttered hastily along.

"Humm! Bound to find out what Sarah's going to wear, also what's in the suitcase," ruminated the doctor.

He stopped by a fence and watched for a few minutes, Silas Herring lazily tinkering an old box in the back yard. "Morning Sile," he called.

"Morning, Doc," said Silas, looking up and laying down his hammer and shuffling over to the fence.

"Goin' to the weddin', Doc?" he queried.

"Yes, thought I'd better see the knot tied."

"Say, Doc, ain't got a hoss you want-er trade have ye?"

"No, guess not," laughed the doctor. "Horse trading this morning?"

"Mote if I seed a chance. Got a right smart hoss, Doc, and gentle. He wouldn't hurt nothin'."

"Gentle as a hornet, eh, Sile?"

"No, honest to God, Doc, she's gentle. Why, say, 'tother day I got plum disgusted with my wimmen folks. Yes, sir, Doc, an' I says ter myself, says I, 'Sile, you'd be better off dead,' says I, 'an' so'd your folks.' So I goes out an' flops right down under this 'ere hoss, Doc, an' honest to God, the fool critter wouldn't step on me, honest to God."

"All right, Sile, don't doubt your word, but I'm not trading this morning." So saying he started to move on.

"Say, Doc," Sile called after him, "Don't want to trade buggies neither, do ye?"

"No, thank you, Sile, not today."

"Ner whips, ner robes? I got a right good blanket, Doc."

"No, Sile, this is not my trading day."

"Don't reckon Masters' 'ud be wantin' a trade, do ye?"

"Not today, Sile, wait 'till he gets back from his wedding trip, and maybe you can trade women with him if you give him a little boot," laughed the doctor.

"No, sir; not me, Doc. Boot al'as has ter come my way when I trade.

Boot al'as has ter come my way." Then as the doctor moved away, Silas again called to him. The doctor paused and Silas, shuffling along the fence, said low and guardedly, eyeing his kitchen door the while:

"Say, Doc, ain't got a dollar ye could let me have, have ye? My women folks been pestering me all morning about they ain't got no flowr. I ain't jest zactly able to work today, but soon's my back gets a little better I'll come up an' split that wood fer ye."

"Where you going fishing, Sile?" the

and trousers and slippers, with abject gloom written upon every feature.

"Cheer up, man, you look as if it was going to be a funeral instead of a wedding. What's the row?"

"Him," pointing towards the door. "Didn't you meet him?"

"Oh, you mean John. Yes, I ran into him at the gate. Seemed rather peeved at something, too."

"Yep, wants me to deed the farm to Helen. If I won't he's going to leave the farm and take her to the city to live, and won't neither of 'em come

the appearance of a tall thin man clad in black, descending from the steps of a rear Pullman and, just before the train pulled out, a thick-set man with a long-visored cap pulled down over his eyes, swung easily from a forward smoker.

As the village of Truxton dropped from sight, so, too, there fell from Hiram and Sarah the shadows of the past years; years of loneliness and self-denial for Sarah, and for Hiram years of bitterness and wounded pride. It was like sailing out of a mist and fog into the bright sunshine.

New scenes, new sights, new acquaintances upon the trip awakened their keenest interest. The summer fields and vineyards, the wooded hills, towns, villages and smoking cities, and at last the dashing, whirling waters of Niagara.

There they spent two happy, joyous weeks and then one day, tired of sight-seeing and eager for the home journey the bride and groom arrived at the depot a full hour's time for the train to take them back to Truxton and the little white cottage which they were to call home.

Hiram sank wearily into a station seat and unloaded the bundles and grips upon the floor and the seat beside him, while his wife sought the women's room to freshen up and whisk away the last traces of the city's dust before boarding the train.

How long she had been gone Hiram did not know, for he was interested in watching the throngs of people hastening in and out from the big gates which lead to the trains. A well-dress-young man sauntered up to his seat and sat down beside him. At first Hiram failed to notice him, but when he did he found the stranger eyeing him closely, then leaning close said:

"Stranger, I'm up against it, lost my money last night playing poker at the hotel, and now I haven't enough to get home. All I got left is my watch, and I wonder if you'd like to buy it for about half what it cost." So saying he produced a small chamois bag from which he took a beautiful gold watch. This he handed to Hiram, who looked it over, and saw that it was of a well-known make, and asked curiously the price.

"Cost me fifty dollars not a month ago, but I'll let you have it for twenty right now, but I'm in a hurry and must catch a train."

"Don't know's I need another watch," said Hiram fingering his vest pocket.

The stranger noted the movement

OVER THERE.

By Al. Rice

Over there the folks are going
Where the oranges are growing
And the ocean breeze is blowing
Ev'ry where.

And, perhaps, they've had a vision
Of the realms of bright Elysian,
Over there.

Over here, where we are native,
There're no breezes, health creative,
And no elixir, sedative,
In the air;
Fancy paints a picture fairer
Where the atmosphere is rarer
Over there.

Over there they have no freezes
Borne upon the Arctic breezes
Where the whooping cough sneezes
In despair.
In the land across the mountain
Age has found a youthful fountain,
Over there.

Over here we have our troubles,
When the wheat is only stubbles,
And our hopes have turned to bubbles,
In the air;
But remember this, my brother:
There are draw-backs in the 'other,
Over there.

doctor asked, a twinkle in his eye.

"Well, boys say they're biting right smart down by the dam, but I wouldn't go if I was able to work. Back's awful lame. Can't hardly straighten up," then, "Thank ye, Doc, thank ye," as the doctor slipped him a silver dollar and passed on down the street.

As the doctor neared the Masters' cottage he saw John Welling descending the steps.

"Hello, Jim!" greeted the doctor. "Fine day for the wedding, eh?"

"Oh, H—!" snarled the other, and turned away, muttering to himself.

The doctor stared after him for a moment, then turning in at the gate, traversed the little board walk and rapped at the door.

"Come in," called a voice, and pushing the door open, he entered.

For a moment he stood blinking, for the change from the bright sunshine of the out of doors to the shaded room with its tightly drawn curtains almost blinded him.

Soon, however, his eyes became accustomed to the room and his gaze fell upon Hiram Masters, slumped down in his arm chair, dressed in shirt

nigh the wedding today less I say yes."

"I suppose you did it."

"No, sir! He kin have the use of the farm just as he's been a doin', and all that he can git out of it as long's he keeps up the repairs and taxes. But I don't part with the deed fer anybody as long as I live." So saying Hiram brought his fist down onto the chair with a resounding whack.

"All right, all right! I think you're doing the right thing, but don't let them spoil your wedding day or Sarah's. Get into your Sunday duds and we'll have just time for a game of checkers before the march begins."

An hour later a little group of people moved slowly and with stately dignity down the shaded village streets, stopped for a half hour at the parsonage, thence onward to the station.

As the train came to a stop, good-byes and God-bless-yous said, Hiram and Sarah boarded the train and were off on their honeymoon trip to Niagara Falls.

Those who were left to wave good-bye from the platform noticed with surprise and ill-concealed excitement

AL ACRES—Al's Maple Syrup will be High this Year if He Charges in His Overhead.

—By Frank R. Lee



and snatched the watch eagerly. "Let me put it in the case," he said. "Quick, there, they are calling my train."

Hiram hadn't heard any train called, but following the stranger's glance he saw a policeman coming in their direction from the other side of the station.

His fingers came out of his pocket slowly and between them a folded slip of yellow, showing in the corner the figures \$20. The stranger snatched the slip, thrust the watch into Hiram's hand and was gone before Hiram could say a word.

The policeman came up on a run.

"You poor rube. Did you buy anything of that fellow?" he exclaimed.

"Looks like I'd bought somethin'," Hiram replied.

"Why, you poor fish, that fellow is a shark! He makes his living skinning rubes. What'd he sting you for?"

"Well, he said as how he'd lost his money and wanted to sell me his watch."

"Fake watch."

"Well, it looked real purty," said Hiram.

"Yes, but you don't think you got the one that he showed you, do you? Look at it."

With this Hiram slowly slid the watch out of the case to find in his hand a cheap brass case with no works whatever.

"Well, I swun," said Hiram. "He sure was a slicker."

"Yes, and you're a sucker. What'd he rim you for?"

"Well," said Hiram, "he didn't wait to rim me, he was so anxious for a sale that he snatched a twenty right out of my hand."

"A twenty, eh?"

"Yep, a twenty dollar gold certificate; good in trade at the Truxtom Emporium to apply on a Farnum hay loader, if ordered before last May."

"Phony money?" exclaimed the policeman.

"Wall, kinder funny money, I'd say."

"Hump, guess you ain't so green as you look. Where you going?"

At Hiram's reply the policeman exclaimed:

"That's your train now; you better get a hustle on, you've only got about three minutes," whereupon Hiram gathered together his belongings and fled through the gate, boarded the train indicated by a red-cap.

When finally settled in a seat he experienced a peculiar sensation. It seemed to him as though he had forgotten something, then the remembrance came over him of how he had bested a regular slicker of a city feller, so he chuckled to himself and gazed interestedly out of the windows as the train pulled slowly out of the station yard and, gaining speed, slipped faster and faster till leaving the city behind it, sped along past farm and vineyard, and wooded hill toward home. Home! Home! Home!

"Thunderation!"

Hiram sat up. A cold chill passed up his spine. Home? And where was Sarah? Then he was seized with a panic. He raced through the car, found the conductor and pleaded to be let off at once.

That official surveyed him calmly. "Forgot something?" he asked.

Hiram gulped. "Yes, you see, somethin' important!"

"Well, this train stops for five minutes at Falls View and if it's important enough you can hire a taxi to take you back from there."

The train had no more than come to a standstill when Hiram was out and bargaining for the return ride. This over, he clambered into the taxi and was soon whizzing back to Niagara.

(Continued next week).

The greatest thing in the world is for a man to know how to be his own.—Montaigne.



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DUMORITE, the new du Pont explosive, has already proved its value and great economy in land-clearing work. Most dealers carry it in stock. If your dealer, however, does not handle Dumorite, he can get it for you without delay.

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Additional Poultry Ads. on Page 203

PAY NO ADVANCE FEE; don't give option of tie up real estate for any kind of contract without first knowing those you are dealing with are absolutely honorable, responsible and reliable.

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3 brood sows, 75 hens, heavy harness, farm tools, etc., 46 acres rich productive dark loam tillage, 14 acres pasture and woodlot, in beautiful farming district, $\frac{3}{4}$ miles to town with all advantages, mail delivered, telephone, cream collected at door, fruit for home use, comfortable 2-story, 8-room house, painted, good condition, well water pumped by windmill, maple shade, barn ties 8 head, half basement, cemented, 2 poultry houses, hog house, granary, tool shed. Make this your farm home and enjoy prosperity and contentment. Price \$5000.00, only \$1000.00 down, balance easy terms. Shown by Ray I. Thompson, Charlotte, Mich., or see Michigan Farm Agency, 623 Ford Building, Detroit.

\$100 DOWN balance ten years, Wisconsin for home. Big market, sure crops, grain, clover, fruit, garden, dairy. No drought, sand, swamp, rock, free fuel. Health pure water. Write now. Owner, Loveland, Plymouth Bldg., Minneapolis, Minn.

Strout's FARMS New Catalog

JUST OUT—Big illustrated guide of the organization selling over 35,000 improved farms since its founding in 1900—filled with agricultural information—carefully planned to save you money and valuable time; hundreds of farms of all descriptions at bargain prices. See page 17 for 58-acre Michigan farm for \$600 down; on improved road, handy village, 35 acres tillage, good orchard; comfortable house, barn, poultry house. Age forces sale; furniture, organ, horse, poultry, full implements included, all \$1200. Productive 62-acre Michigan farm described page 18; horses, cows, poultry, sows, 15 pigs; city markets; all tillable; variety fruit; 9-room house, 35-ft. barn, silo, poultry houses; all \$4000, only \$1200 needed. Then on page 29 comes 195-acre So. Michigan farm; 120 acres tillable; variety fruit; new 2-story 7-room house, furnace, bathroom; 100-ft. barn, silo. Retiring owner's low price \$13,200, horses, 8 cows, full implements, tools, etc., included, only \$2000 needed. Hundreds of bargains throughout Michigan, Illinois, Indiana, Ohio, 29 other states and Canada—stock, furniture, tools, seed included—ready for spring planting. You can save time and money through this big helpful book. Copy free. Write today. Strout Farm Agency, 427KH Marquette Bldg., Chicago, Illa.

FOR SALE—Improved stock and grain farm of 150 acres, all level, some timber. Best of soil, $\frac{1}{4}$ miles from good railroad town on State Pike, $\frac{2}{3}$ story house, furnace, toilet, bath. Large bank barn, other buildings, all fenced. Young orchard. Near school. No encumbrance. A. J. BRENNER, Onaway, Michigan.

For Sale 500 acres in Lake Co., Mich. 100 improved, 2,500 cords of wood. House, barn, silo, fine for cattle or sheep. Well watered. \$7,500. F. P. Arthur, Ann Arbor, Mich.

Wyoming Agency Dry and Irrigated Ranches, Chicken, Dairy and Stock Farms, Homestead Relinquishments Cheap, Trades, City Lots, Stores, Summer Homes, 16 Mi. Mts. Licensed and Bonded Dealer, Glendo, Wyo.

Buy a Farm in the great fruit and farming country of Northwest Arkansas where land is cheap and terms are reasonable. For free literature and list of farms write J. M. Doyel Mountainburg, Arkansas.

Sell your property quickly for cash, no matter where located. Particulars free, Real Estate Salesman Co., 515 Brownell, Lincoln, Neb.

Poor Man's Chance \$5 down, \$5 monthly cash, 160 acres productive land near town. Some timber. Price \$225. Other bargains. Box 425-Z, Carthage, Mo.

80 Acres Improved \$65 per acre \$1000 cash, 160 acres improved \$67.50 net acre \$1000 cash. THE ALLEN COUNTY INVESTMENT CO., Iola, Kansas.

Good 80 Acre Farm for sale. Nearly level. Heavy soil on main road. Bargain. LEA SEATON, Fenton, Mich.

Additional Farm Ads. on Page 247.

Wanted To hear from owner of land for sale O. K. HAWLEY, Baldwin, Wisconsin

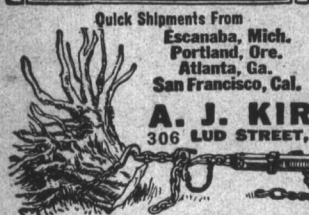
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Special Introductory Sale on Famous KIRSTIN One-Man Stump Pullers places this dependable land clearing equipment in reach of any man with stump land. Thousands in use—every KIRSTIN owner a booster because of ease of operation, simplicity and wonderful power. One man, or a boy, pulls big stumps. 100-lb. push develops 5½ tons pull weighs as little as 100 lbs. complete. Easy to move anywhere.

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Sudden Conversion

Our Weekly Sermon—By N. A. McCune

THE lesson for this Sunday is entitled, "Jesus and Zacchaeus," and is a lesson on conversion; and not conversion alone, but sudden conversion. This is an engrossing subject. Volumes have been written on it, whole libraries and miles and miles of sermons have been preached on it. We do not hear as much of it of late years, and that I think for a very good reason. About twenty years ago several prominent ministers began to appreciate the fact that there is a vast deal of injustice and inequality in society, business and industry. They took to studying the prophets, and then the teaching of Christ, and became convinced that the Bible teaches



without qualification that the kingdom of God is to come in society by a gradual process. Justice, peace, righteousness, good will, are to yet reign on the earth. This conviction on the part of religious leaders has grown by leaps and jumps, and is now one of the settled principles of the modern church, although many church members are still asleep on the question. Naturally, much preaching has been directed this way, and this brand of pulpit discourse will undoubtedly increase rather than lessen, in the future. This is one big reason why so much has not been heard on the matter of individual conversion the past few years. Many leaders have felt, and feel now, that there is no justification for the church, if she cannot produce a more Christian social order.

But let no one be alarmed. This does not mean that individual conversion is to be no longer believed and taught. No. Rather the opposite. We now see that if there are no converted persons in the world, a Christian social society would be impossible. As Bernard Shaw, I think it is, said, we cannot get a Christlike world until we get a world of Christs. Moody the evangelist put it in his characteristic way: "If you want good water, it is not enough to paint the pump—you must clean out the well." Or to phrase it in more literary style, we might quote Herbert Spencer: "There is no political alchemy by which you can get golden conduct out of leaden motives." Conversion is possible. Moreover, conversions are taking place all the time. Sudden conversion is possible, though it may not be as common as it was once. One mistake we must not make. We must not be set or narrow about it, and say that one kind of conversion only is good, and all others are spurious. Some folk will declare that if you cannot name the day and hour when you felt the new life coming in, your conversion is worthless. Others belittle a sudden change of heart, declaring that growth in the Christian graces is always gradual. Both of these extremists are wrong in their criticism. God is not confined to any one method of doing business. When forests are slashed away, and the maple and beech and oak are gone, poplars come up and elms and other second-growth wood. God does not paint the same sort of a sunset every night.

of insight into the power of religion and into nature of the human mind. However, we may account for the fact, it has been abundantly proved that there is such a thing as the 'soul's leap to God' in which time is a mere irrelevance. This experience has been shared not only by the ignorant and the outcast classes who have led wicked or careless lives, but has marked an epoch in the careers of some of the greatest and most influential men, such as Paul, Augustine, Luther, Cromwell, Savanarola, Ignatius Loyola, Wesley, Schleiermacher, Chalmers, Newman and Tolstoy."

Here is a shortened account of a graduate of Oxford University, England: "I was converted in my own bedroom in my father's rectory house at precisely three o'clock in the afternoon of a hot July day. I was in perfect health, having been off drink for nearly a month. I was in no way troubled about my soul. In fact, God was not in my thoughts that day. A young lady had sent me a copy of Drummond's Natural Law in the Spiritual World, asking my opinion of it as a literary work only. I took the book to my bedroom for quiet, intending to give it a thorough study, and then write her what I thought of it. It was here that I met God face to face, and I shall never forget the meeting. 'He that hath the Son hath life, and he that hath not the Son hath not life.' I had read this scores of times before, but this made all the difference. I was now in God's presence and my attention was absolutely 'soldered' on to this verse, and I was not allowed to proceed with the book until I had fairly considered what these words really involve.

ONLY then was I allowed to proceed, feeling all the while that there was another being in my room, though not seen by me. The stillness was marvelous, and I was supremely happy. It was shown me, in one second of time, that I had touched the Eternal, and that if I had died then, I must inevitably be lost. I was undone. I knew it as well as I now know that I am saved. What could I do? I did not repent, even; God never asked me to repent. All I felt was, 'I am undone, and God cannot help it, although He loves me.' My doom was sealed. I was lost to a certainty. Then there crept in upon me so gently, so lovingly, so unmistakably, a way of escape, and what was that, after all? The old, old story over again, told in the simplest way: 'There is no name under heaven whereby ye can be saved except that of the Lord Jesus Christ.' No words were spoken. I seemed to see the Savior in the spirit, and from that hour to this, nearly nine years now, there has never been in my life one doubt that the Lord Jesus Christ and God the Father both worked upon me that afternoon in July. I rejoiced then and there in a conversion so astounding that the whole village heard of it within twenty-four hours." He then tells that shortly after this he fell, and got thoroughly drunk. "Well, what did I do. I committed myself to Him in the profoundest belief that my individuality was going to be destroyed, and that he would take all from, and that I was willing. In such a surrender lies the secret of holy life.

CONVERSIONS, both sudden and gradual, can take place. Says the author of "The New Life," (a sweet little book, written by Dr. Samuel McComb—a good birthday gift), "The prejudice against the possibility of a sudden conversion springs from lack

SUNDAY SCHOOL LESSON FOR FEBRUARY 18.

SUBJECT:—Jesus and Zacchaeus, Luke 19:1-10.
GOLDEN TEXT:—The Son of man came to seek and to save that which was lost.

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RURAL HEALTH

By Dr. C. H. Lerrigo

LAGRIPPE IS INFLUENZA.

SEVERAL subscribers have written to know the difference between lagrippe and influenza. There seems to be a general opinion that the two ailments are quite different and that one may take liberties with an attack of lagrippe that would be quite unsafe with influenza. The fact is that the difference is in name only; the ailments are identical in cause and in effect.

The people of America had a severe lesson as to the terrible power of influenza, in the year 1918. It is safe to say that it rivalled the ravages of the great plague of London that is given such a prominent place in the history of epidemics of disease. But it is well to know that the same disease comes to us year after year, and it is capable of the same deadly work, even though, during certain seasons, it does seem to be of a milder type. Lagrippe, grip, flu, Russian influenza: no matter what the name, all of them mean influenza; and influenza is a disease that must always be treated with the greatest respect.

It must be remembered that influenza is a disease that resembles diphtheria in the important respect that it generates poisons having their effect on the entire system, but especially upon the heart. A person having what is so often described as a "touch of the grip" will often make light of the trouble, try to continue at work, and perhaps manage to do so. What harm is done?

First of all he does harm to those with whom he comes in contact, for influenza, no matter how mild the type, is always contagious. Then he really loses time. He may not feel very ill, but he lacks "pep" and his work is bound to be of poor quality. He drags around for a period four times as long as would have been necessary had he gone to bed for a couple of days at the start of the trouble. All this time he is overworking a heart that is feeling the poison of influenza, making it work when it should be resting. It is at such times that the foundation is laid for chronic heart trouble that appears in later years.

Moral: Don't trifle with an attack of influenza, no matter under what name it is disguised. Go to bed until you have won the battle.

PAIN IN BACK.

Would cutting hair relieve pain in back over hips? Have been bothered for some time with pain there. It still pains even after I get hair done up. Please advise me as I have tried several things but get no relief. Hair is thirty-six inches long.—E. M. M.

I do not think your hair is to blame for this trouble in the back. Have a more thorough examination and you will detect the real offender.

STIFF NECK.

I have had a stiff neck since last October. Cannot turn my head either way or lift my chin up without great pain in the back of my neck. There is pain upon pressure at the base of the skull. Have tried all kinds of dope, both internal and external, but nothing helps.—Mrs. A. T. W.

This ailment, the medical name for which is Torticollis is very stubborn to treatment. It may come from an injury to head or neck, but sometimes it simply follows exposure to cold, developing the "rheumatic type." If there is any probability that it is due to injury the first thing to do is to get an X-Ray picture. If not likely to be injury I should see what an osteopathic physician could do.

FIFTY-FIFTH ANNUAL STATEMENT OF THE

Michigan Mutual Life Insurance Company

FOR THE YEAR ENDED DECEMBER 31ST, 1922

PAID-FOR BASIS

ASSETS

Cash in banks	\$ 150,919.47
First mortgage liens on real estate	12,560,628.75
Real estate	106,266.71
Amount invested in new Home Office Building	475,000.00
Loans to policyholders, secured by reserves	2,651,854.65
U. S. Government Liberty Loan Bonds	327,512.00
State of Michigan War Loan Bonds	35,000.00
Interest due and accrued	272,736.83
Net outstanding and deferred premiums, secured by reserves	213,172.03
Total Assets	\$16,793,090.44

LIABILITIES

Reserve fund (including disability benefits)	\$15,322,484.53
Premiums and interest, paid in advance	29,792.23
Installment policies not yet due	74,136.39
Other policy claims	74,050.54
Accrued taxes, salaries and expenses	92,325.64
Surplus	1,200,301.11
Total Liabilities	\$16,793,090.44
Insurance written during 1922	\$21,039,754.00
Total Amount of Insurance in force December 31, 1922 ..	97,739,014.39
During the year 1922 the Company paid death claims amounting to	808,424.59
Paid to Living Policyholders	896,571.29
Total amount paid to policyholders since the organization of the Company	36,250,693.62

A RECORD OF ACTUAL RESULTS WHICH SPEAKS FOR ITSELF

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A. F. Moore, Secretary
John C. Grix, Assistant Secretary
G. W. Sanders, Actuary
Geo. B. McGill, Superintendent
of Agencies
L. H. Chamberlin, Auditor

O. F. Looker, 2nd Ass't Secretary
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Woman's Interests



A Congress for Housewives

What the Women Folks Listened to During Farmers' Week

By Isabell Taylor

LARGE crowds attended the meetings of the Housewives' Congress held at the Michigan Agricultural College in connection with Farmers' Week.

The programs, which extended over four days, were presided over by Dean Louise H. Campbell, Mrs. Dora Stockman and Miss Edna Smith.

At the first meeting, Tuesday morning, Miss Bess Rowe, field editor of the "Farmer's Wife," gave the results of a contest conducted by that magazine on "Do You Want Your Daughter to Marry a Farmer?" Of the thousands of letters received from all parts of the United States, only six per cent expressed a vigorous objection to the farmer as a husband. Michigan women sent in 413 letters, with 7.2 per cent on the negative side. Most of the letters expressing discontent came from communities bordering the larger industrial centers of the state, and those nearest the lakes.

One Michigan woman who was awarded one of the prizes, said that "any farm woman who works sixteen hours each day may know that the fault is with herself and not her work. She would do the same thing in the city." Most of the women contestants had lived in both the city and in the country, and were able to contrast the two intelligently.

Miss Grace Frysinger, field agent in extension methods of the United States Department of Agriculture, urged that the farm home be kept happy and prosperous.

She showed that the farm home is supplying the increase in both farm and city population, so that the farm mother and father determine the thought, ideals and standards of urban and country life. She declared that if no rural life were to be brought into the cities, urban life would die out within four generations.

In deploring the ugliness frequently associated with the farm home, Miss Frysinger said that more stress should be placed on the economic side of farming, and that the homes should be beautiful on the inside and the outside. The natural surroundings of many farm homes, when properly developed, give settings that are superior to any to be found in the most beautiful suburbs. She concluded her talk with the statement that the best chance of success and progress for the nation lies in continually improving the farm home.

Dr. Marie Dye, nutrition expert at M. A. C. gave two very interesting and practical talks during the week, and

in addition, conducted some calorimeter experiments so the women might see the way in which food requirements are determined.

Dr. Dye reviewed the essential foods and explained how occupations, daily habits and activities of people, and age cause a wide variation in food requirements. By experiments conducted in a boys' school, the children were found to need as much food as grown men, engaged in heavy muscular work.

Vitamines came in for their share of discussion, and Dr. Dye explained where they might be found, and what occurred to people when they were absent in the diet.

Fat soluble A, the first vitamine, is present in cod liver oil, in butter fats and in leafy vegetables. Water soluble B is present in yeast and in whole grains, vegetables and fruits. Water soluble C is present in all citrus fruits and in some vegetables.

The absence of vitamine A in the diet leads to serious eye trouble, known as xerophthalmia. This is rarely found in human beings, but was very prevalent during the war in Europe. The Balkan children suffered most from its ravages, and great numbers became blind as a result. When the relief commission obtained a large supply of cod liver oil, they made the children take a spoonful before every meal, and although they objected, the members of the commission remained firm, and the eye trouble soon disappeared.

The elimination of vitamine B from the diet brings about Beri-Beri, which is prevalent in the Orient, and the absence of C leads to scurvy.

Miss Mary Keown, assistant secretary of the American Washing Machine Manufacturers' Association, who was formerly engaged in home economics work, gave a lecture on laundering in the home. In a recent survey, Miss Keown said, it was found that ninety-six per cent of all the laundry work of the country is done in private homes. She confined her talk chiefly to new labor-saving devices and to means of improving those already in use in the homes.

Miss Ethel Webb of the clothing department, gave an interesting lecture on clothing selection. She stressed the importance of each woman knowing just what type she belongs to before selecting clothing.

Stiff materials that stand out from the figure, such as organdie and taffeta, said Miss Webb, should be left

for the younger woman, while the more mature woman will find long soft lines much more becoming. Warm colors, including orange, and red tend to make the figure look larger, while cool colors, blues, greens and lavenders tend to decrease size. The three-piece suit, with the blouse blending into the skirt, is the newest thing for spring.

The visitors at the college were given the opportunity to see the kind of work the co-eds turn out. The clothing and millinery exhibit in Morrill Hall was the best one the girls have prepared. The cafeteria run during the week gave a good demonstration of the practical side of the work in cooking. Approximately 400 people were served each day during the week, and all of the work was done by the co-eds. Those in charge were seniors taking institutional management.

IS MARRIAGE A FAILURE?

Is marriage a failure? Decidedly no, I should say. Though many things there are that make it appear that way. Send all autos to the moon, never to come back, Just because some drivers with them have jumped the track? Away with all schools; we're better off without, you see, For some missed their calling when teacher they tried to be. Shall we from the million lovely cakes, forever turn our head Because once in a while we see one heavy as lead? Failure? Suppose we have no more marriages, no children round the hearth. Soon naught but wild animals would be seen upon this earth. And perchance some so-called human beings did roam this sod, They would need an Elijah to prove there was a God. The chief reason for unhappy marriages, is love they lack. It's for charm, a home, money, disappointed then wish themselves back. Which is most to blame, the woman or the man? If we could see as God sees, methinks 'twould be even span. Don't think the path all strewn with roses, more'n for the single one. But if you've the right mate, you've a helper through the thorns to run. But if in differences you can't meet half way and smile, You'd better turn the other way and walk alone awhile. We need the maiden lady, and the man without a wife. Each has a place to fill, and variety is the spice of life. Just look into a home where love supreme you see. The happy children climbing upon their father's knee. Their arms to have around his neck he would not miss, The mother stoops to bestow upon each cheek a kiss. All their hearts are filled with love to overflow, And say that marriage is a failure. Ah, no! —Mrs. B. W. Tracy, Paw Paw, Mich.

RAISIN FLUFF.

Two cups of sugar; half cup water; one stiffly beaten egg white; half cup chopped raisins; half cup of walnut meats; quarter teaspoon of vanilla.

Boil sugar and water until it threads when dropped from the tip of a spoon. Pour on beaten egg white and beat until it holds its shape. Add raisins, nuts, salt and vanilla. Mix well. Drop from a teaspoon on paraffin paper and set aside until cold.



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Washington, the Farmer

By L. B. Reber

GEORGE WASHINGTON, Father of his Country, first President of the United States, and Commander-in-Chief of the American forces, is known to every school child, but not very many realize also that he was proprietor of one of the largest farms in the country.

His estate was washed by ten miles of tide water. Think of one farm with a water frontage of ten miles. The farm was wholly self-supporting. The beef and dairy animals, the horses and mules, the sheep and poultry, all were bred on the farm. The clothing for the family and servants was made of wool carded, spun, wove and tailored on the farm. The shoes were made of leather produced and tanned, then fashioned into shoes and boots on the farm. Meal and flour was ground from home-raised grain and there was a surplus for export. So excellent was the flour that the barrels exported were never opened for inspection if they bore the Mount Vernon brand. Tobacco from Mount Vernon farm brought a premium on the London market.

Washington's breakfast consisted of three or four small hoe cakes, made of corn meal and baked in a skillet, and two small cups of tea. He personally looked after all of the work going on on the farm. He invented an improved plow and then helped his blacksmith construct it. When it was finished after two days of hard work, he hitched his carriage team to it and proceeded to plow up a field of old sod. He stood in a raging flood of water and directed the labor which succeeded in saving his flour mill from being washed away. He was his own game warden.

At one time a poacher kept shooting game out of season on the farm rough land. Washington caught him in the act. The poacher pointed his gun and threatened to shoot. Washington waded out to the canoe, grabbed the man by the collar, drew him back to land and then gave him such a sound thrashing that he never again appeared on the farm.

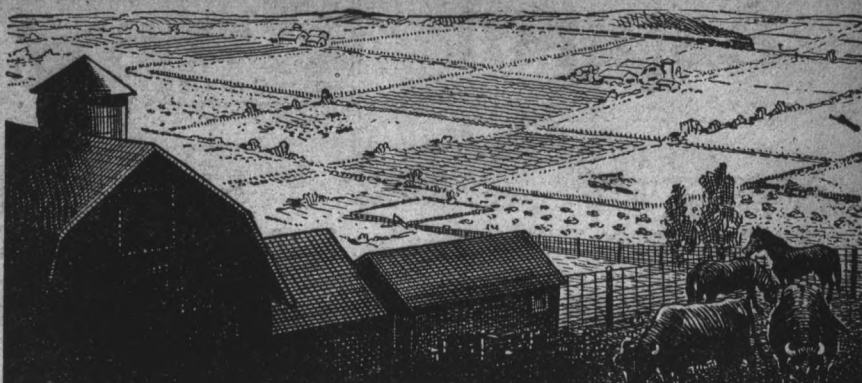
He was his own bookkeeper and his accounts were marvels of neatness and accuracy. He was county judge, a member of the House of Burgesses. He was president of a company which was chartered to drain a vast swamp, and Washington made the drainage survey. His system of canals are in use at present. They effectually transformed a dismal swamp into a rich agricultural region. There was rarely a time when guests were not being entertained at Mount Vernon.

A visit meant something in those days. Guests occasionally stayed as long as six months, and few stayed a shorter time than a week. At times there were nearly a hundred guests to be entertained. Think of that, you people who have the minister to dinner once a year.

There were no middlemen in Washington's farm dealings. When he shipped flour or tobacco, the chief exports of the farm, these products were shipped by whole shiploads which were loaded at the farm wharf. These shipments were made under his personal supervision and consigned in bulk to his agents in London. With the ship went a long list of articles to be brought back direct from London. Washington introduced the mule in Virginia. He was a believer in pure-bred stock and all his farm stock was "bred in the purple."

Now, friend farmer, just make a little mental comparison between your farm and Washington's. His farm was,

(Continued on page 22)



Canada Offers Farmers their chance to get ahead

If your hard work and investments are not giving you the return they should—if highland prices and high rentals are blocking your road to Success—if you are beginning to see how hard it is to compete with low-priced lands that are equally fertile, you owe it to yourself and your family to get the facts about farm opportunities in Canada. Lower-priced land—lower overhead—lower taxes and operating costs—may be the solution of your problem.

Low-Priced Land—the Secret

Virgin prairie land at \$15 to \$30 an acre, with long terms, if you want them, close to railroads and market towns, schools, churches, telephones, highways—these vast virgin prairies offer you the last great farm opportunity. The fortunes of the United States were built on low-priced land. Those lands are now dear—perhaps beyond your reach—but Canada's lands are still low-priced. You may have missed the first chance—don't miss the last.

Your Own Farm—Prosperity, Happiness

The opportunity that fits your particular financial and family needs awaits you in Canada, and the Canadian Government Agent will help you find it. Land of great and continuous fertility, (Western Canada's wheat crop in 1922 was the biggest in history), land suitable for stock-raising, dairying, mixed farming, fodder crops, market gardening, to suit your experience and your pocketbook. Land that will pay for itself in a few years' crops; hundreds of Canadian farms have produced crops in one year worth more than the price of the land.

Rent If You Prefer—Pay Out of Profits

The Canadian Government has devised a means by which you can "try out" a farm for a year or two before investing, and at the same time increase your capital for the day when you are ready to buy a farm of your own. Many Canadian land owners are willing to rent a portion of their holdings; others

are already retiring and will rent on easy terms, in some cases giving an option of purchase. If you have a farm outfit, or the means of buying it, even if your other capital is small, this is your chance to try out the country for yourself. Seeing is believing. See for yourself. A year or two on a rented farm may be the road to success. If you have present holdings which you cannot sell to advantage, hold them another year or two, conditions may improve, but start in Canada at once. Lands are being taken up; nothing is gained by delay.

Taxes Favor the Producing Farmer

Western Canada's tax system encourages farm production and the improvement of property. Taxes on an improved farm are less than on an unimproved one, and there are no taxes at all on the farmer's buildings, machinery, live stock, automobile, crops, or personal effects. Tax laws are designed to aid the farmer in building up a home of his own.

Get the Facts—Costs You Nothing

The Canadian Government maintains Information Bureaus where you can get the facts—dependable Government information—without cost. The officials are paid officials of the Government of Canada, maintained to be of service to you, without any charge. Let us know something of your position, and receive free book with maps, and the free service of the Canadian Government Agent in your territory; also information how special railway rates can be arranged for a trip of inspection.

Mail coupon to Agent.

J. M. MacLachlan
Desk 29,

10 Jefferson Ave., East,
Detroit, Mich.

FREE HOMESTEADS are still available in some localities. Canada welcomes Tourists—come and see our country for yourself—No Passports Required.



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East, Detroit, Mich.
Agent, Department of Immigration:
Please send me your free literature on Canada, I am particularly interested in:
Renting { } Buying { }
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Special Railway Rates { }
Name.....
R.F.D. No. or St. Address.....
Post Office.....State.....

FREE KELLOGG'S 1923 STRAWBERRY BOOK

Stop paying high prices for Strawberries. Write for our beautiful, big, new Strawberry Book. See how easy and profitable it is to grow your own big red berries. Book pictures in color of the new prize-winning KELLOGG THORBRED STRAWBERRY PLANTS—also describes six Kellogg Bargain Strawberry Gardens at Special Low Prices, from \$2.35 up. Tells how thousands of families are picking Strawberries from May until snow flies, from Kellogg's Everbearing Gardens and making big cash profits besides. Also tells about the most wonderful berry ever brought out—Kellogg's

New \$50,000 Everbearer
Where it came from—Who brought it—and why it cost \$50,000. Book tells all. It's free.

R. M. KELLOGG CO.
Box 360
THREE RIVERS, MICH.

STRAWBERRY PLANTS

The new Cooper Strawberry, largest, sweetest and most productive berry known. One berry makes a big mouthful, 9 berries make a layer in a quart box. 400 crates per acre. Sells for a third more than other varieties. A full assortment of other kinds of small fruit plants. Prices greatly reduced. Wholesale prices on large amounts. Our free catalog shows the Cooper and ten other kinds in their natural colors. Write for it today.

A. R. WESTON & CO., R.D. No. 6, Bridgman, Mich.

SUREHEAD CABBAGE

Get a full crop from the seeds you plant. My customers write me by the hundreds telling me how my seeds yield for them! Write for my new Seed Book and magazine, "Seed Sense". Both Free. Show you how to make money from your garden.

HERBY FIELD SEED CO., Dept. 7 Shenandoah, Iowa

STRAWBERRY PLANTS

\$3.50 Per Thousand, and up. Our strong, healthy, tremendous bearing plants guarantee big crops of luscious berries. Best varieties for all kinds of soils. Many new varieties such as Eaton, Bun Special, Premier, Marvel, and Cooper. The world's greatest new Everbearing Strawberry CHAMPION. Full line of Raspberries, Blackberries and Asparagus. Greatly Reduced Prices. Our customers are making up to \$120.00 per acre from small fruits. Large stock of good Grape Plants at \$35.00 per thousand.

Beautiful new color catalog free. Write Today
BRIDGMAN NURSERY CO. Box 25, Bridgman, Michigan

For BIG CROPS

Grow Watson's Prolific Everbearing

Of luscious Strawberries, also standard varieties, 100 each Prolific and Watson's, \$2 cash postpaid. 1 Spirea or 2 Concord Grapevines with every order of \$5 or more. We also save you money on thirty Fruit Trees, Shrubs and Ornamentals. Write for prices. Watson's Strawberry Acres, R.S. Box 54, Grand Rapids, Mich.

Strawberries Plants

Prices as low as \$2.75 a thousand. Raspberries, Blackberries, Currant, Asparagus, Grape Plants, etc. For sale by the 100 or more. Sawyer Nurseries, Sawyer, Mich. Box 103.

Concord Grape Vines. Lyr. No. 1, \$40 per 1000. Fruit berry. Write for free catalogue today. FEATHER'S NURSERIES, Baroda, Michigan

2 or 3 Cans of Baking Powder

Are Not Worth the Price of One

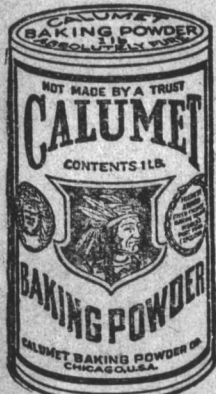
If they are the "big can and cheap" kind because they may mean baking failures.

THAT'S WHY

CALUMET

The Economy **BAKING POWDER**

Is the biggest selling brand in the world; its sales are over 150% greater than that of any other brand



BEST BY TEST

Don't let a BIG CAN or a very low price mislead you.

Experimenting with an uncertain brand is expensive—because it *Wastes* time and money



THE WORLD'S GREATEST BAKING POWDER

A Stove for a Dime

AMAZING! The many uses of this little stove. Use it for cooking, light ironing, heating curling irons, heating water quickly, warming baby's milk, in emergencies, in the sick room. Hundreds of other uses. Always ready to give you heat in a moment. Be sure to get this



Sterno Canned Heat Folding Stove

Send ad and 10c to Sterno Corp., 9 E. 37th Street, N. Y. C., Dept. F-2 for sample stove



**"In 10 Minutes—
Whole House Warm"**

So writes August Neutrup of Columbus, Indiana—one of the thousands of satisfied owners of Kalamazoo furnaces. He also says, "The only thing I am sorry for is that we did not buy sooner. There is no furnace as good as the Kalamazoo Pipeless." **Easy to Install** Our heating engineers gladly send you blue prints, free. Easily save \$50 to \$125 buying direct from manufacturers. Sizes and types of furnaces for every home—large and small. Prompt, safe delivery guaranteed. **FREE** Bargain Catalog—Makes special offer to early buyers. Get this book. It gives all facts and lists a thousand bargains in Furnaces, Stoves, Ranges, Furniture and farm and home needs. Write today. **KALAMAZOO STOVE CO., 121 1/2 Rochester Ave., Kalamazoo, Mich.**

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FURNACE
BARGAIN
BOOK

**"A Kalamazoo
Direct to You"**

YARN
100% PURE WOOL

Save 3% by making sweaters, scarfs, caps, shawls and other knitted things from this warm, long wearing, pure wool yarn. Send for Free color card of stylish, attractive shades—also money saving catalog of many other Home-wool products. **FOUNDED 1876**
HOME WOOLEN MILLS
204 Main St., Eaton Rapids, Mich.

"HOMEWOOL"

CHOICE STRAWBERRY PLANTS \$3.75 per 1000 varieties at \$3.75. Guaranteed first class or money refunded. Cat. g. Mrs. Filena Woolf. Allegan, Mich.

STRAWBERRY and Raspberry Plants 17 Years' experience. Prices Reas. Catalog Free. **J. E. HAMPTON & SON, 3 BANGOR, MICH.**

Color Your Butter

"Dandelion Butter Color" Gives That Golden June Shade and Costs Really Nothing. Read!

Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade to bring you top prices. "Dandelion Butter Color" costs nothing because each ounce used adds ounce of weight to butter. Large bottles cost only 35 cents at drug or grocery stores. Purely vegetable, harmless, meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless.

Wells & Richardson Co., Burlington, Vt.

STRAWBERRY PLANTS \$3 per 1000, history and valuable illustrated book free. You will learn. Address **MAYERS PLANT NURSERY, Merrill, Mich.**

Household Service

Use this Department to Help Solve Your Household Problems. Address all Letters to Martha Cole, Michigan Farmer, Detroit, Mich.

OLD-FASHIONED GINGERBREAD.

I am a housekeeper and mother and am just learning about so many things I should have known before I was married. Can you send me a good recipe for old-fashioned gingerbread?—M. O.

The recipe calls for half cup shortening (lard or lard and butter or bacon fat), two small eggs, one cup of sugar, one cup molasses, two and one-half cups flour, one teaspoon of soda, half teaspoon cinnamon, one teaspoon ginger, quarter teaspoon clover, quarter teaspoon allspice, one cup raisins.

Cream together shortening, sugar and eggs. Mix together flour, soda and egg mixture. Stir in the flour and add raisins. Bake in a moderate oven thirty to thirty-five minutes.

TABLE SERVICE RULES.

Where should the water glass and bread and butter plates be placed? From which side should the silver be used? In large dinners what is the space to allow for each cover or person?—G. S.

The water glass or goblet should be placed at end of knife blade on right side, while the bread and butter plate is placed on the left side at the end of fork, with the napkin at the left of

the fork. Twenty-four inches is the usual space allowed for each person.

TO DYE YELLOW.

Can you send me a simple home recipe for dyeing cotton material yellow?—G. L.

For five pounds of goods dissolve one pound of sugar of lead in enough water to thoroughly wet the goods and in the same quantity of water in another vessel dissolve one-half pound of bi-chromate of potash. Dip the goods well and drain in each alternately until you have the desired shade. Rinse and hang up to dry.

TO CLEAN COAT COLLAR.

Can you tell me something that will clean the collar of a man's overcoat and remove the shine from seams and elbows?—Mrs. F. R.

Rub the parts with a clean flannel dipped in either benzine or aqua ammonia, or a solution made by dissolving a piece of carbonate of ammonia the size of a walnut in a cup of warm water. These are inexpensive and will not change the color, but do not use the benzine in a room where there is a light or fire.

AN APPLE FOR EVERY PURPOSE.

FOR the best apple pie that mother used to make and for the most toothsome creation of the modern chef there is a reason—employment of the right variety for each particular purpose. Careful analysis has shown that apple varieties differ in their usefulness for various purposes. The modern chef would not think of using Stayman, King David or Wolf River for a pie for he has learned that they are not fit for such a purpose. He also knows why Fameuse, Maiden Blush, Minkler and Grimes make the best apple dumplings.

In 1913 and 1914 the Oregon Experiment Station obtained as many apple varieties as possible and decided to learn something of their properties for different uses. The results were surprising. Highly experienced "apple tasters" were used as judges for all products and the results will interest every family.

From fifty-five varieties of apples tested for pie qualities only such varieties as Northern Spy, Rambo and Maiden Blush were supreme, while Gano, Grimes, Jonathan, Winesap, Giant Jeniton, etc., ranked second.

For dumplings, Maiden Blush, Minkler, Grimes and Spy were superior to Ben Davis, York, Rome, Jonathan, etc.

For jelly the Maiden Blush was far ahead of Gano, Grimes, York, etc.

For marmalade, Rome, Jonathan,

and Maiden Blush were better than Grimes, Gano, York, Winesap, etc.

Usually it is only the fruit grower's family that has a number of varieties from which to select for the purpose in mind, but fortunately there are a few general utility apples that score high for sauce, pie, jelly, marmalade and dumpling use, which are Maiden Blush, Jonathan, Grimes, Rambo and Northern Spy varieties found in most home orchards.—Missouri Agrl. Col.

NO MORE GUESSWORK IN THE BISCUIT MAKING.

IF, perchance, you are a wife who captured a native of the southern states for a husband, or that husband has spent some time in that portion of our country, with the opportunity of enjoying some of the southern mammy's biscuits, you will appreciate fully the latest "new discovery" along this line. Undoubtedly there are others, too, who cannot attain a high degree of perfection in this division of culinary art who will be interested.

The old negro "mammy" of the south is able to taste of buttermilk clabber and then measure out with her fingers the exact amount of soda needed to react with the buttermilk to make delicious biscuits. Her's, however, is becoming a lost art.

A new and rapid method of determining the amount of baking soda needed to react properly on a cup of milk of various degrees of sourness has been worked out in the laboratories of George Peabody College for Teachers, by Miss Mary P. Wilson and Dr. H. A. Webb, who presented the results of the investigation at a late meeting of the American Chemical Society, at Pittsburgh. An "indicator" which would show when the correct amount of soda was added was discovered in the use of a paper soaked with the dye elizarine. Making spots on this paper with drops of milk determines the exact amount of soda required, measured by an eighth of a teaspoon. The manipulation of the test is simple so that bakers, cooking classes, or housewives may use it. Less than a minute is necessary after the solutions are prepared.



"Playing Postoffice," Children of Mr. and Mrs. Hagerman, Carson City.

Kneading Bread with a Crank

By Our Readers

IF Mrs. A. L. could read all the nice letters received in this department regarding the commercial bread mixer, I believe the immediate result would be that Mr. A. L. would crank the car and they would start immediately for town to procure one at the earliest possible time. Some forty replies have been received at this writing and more are coming with each mail. The fine thing about it is that they are all on the affirmative side of the case. That is, that Mr. A. L. get busy right away and get Mrs. A. L. a bread mixer to lighten the task of making the family bread. The following are some of the statements of recommendation made by housewives who have had experience with commercial mixers of various sorts:

"We have used one in the family for

have to learn to use it, as with every thing else."—P. R.

"There are many things to be said of a commercial bread mixer. Increased sanitary possibilities, superior quality of bread and an unbelievable amount of time and energy saved."—L. E. B.

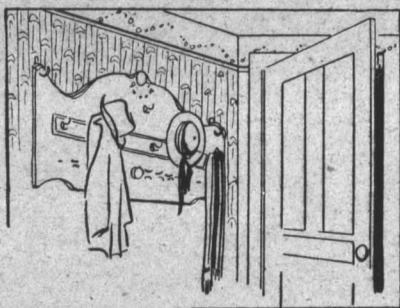
"I have used one for fifteen years, the first one lasted about twelve years. I thought at first I would do without one, but soon changed my mind and got another bread mixer."—A. H.

"The mixer is perfectly all right, but I usually mix bread longer than the directions call for."—F. E. S.

"My daughter won first prize on the bread made by using a mixer."—F. W.

HANG YOUR HAT AND COAT HERE.

THE ornamented top of a headboard to a black walnut bedstead was made into a rack to hold hats and coats in this way. Strong hooks were screwed to the piece of wood at a suitable distance. A large screweye was



inserted at the top of each end. Then hang the rack to strong screws in the wall. Being fastened to the wall in this way the rack can be easily removed when papering is to be done. This unique rack is fitted into the space behind the outside door that opens into the room.

Home Improvements

WHAT one change or improvement would be the greatest benefit to your home, or which one would you rather have installed?

This question is to be answered in your letter for the next contest. Two weeks' time will be allowed to give ample time for the letters to get here from all parts of the state. The letters should arrive not later than March 2.

For the best letter answering this question we will give an aluminum double boiler. The second prize will be an aluminum serving tray, while the third, fourth and fifth prizes will be aluminum sauce pans.

Address your letters to Martha Cole, Michigan Farmer, Detroit, Michigan.

seven or eight years and could not do without one now. It not only is much less work than the old-fashioned way of hand-mixing, but it is easier and cleaner."—A. G.

"Have used a mixed for several years and would certainly hate to do without it. My mother has also used one and we both find them very satisfactory. I knead my bread longer than the directions say, as it makes it of a finer texture."—C. E. H.

"Have used a bread mixer for eighteen years and wouldn't do without one. Have mixed a lot of bread with my mixer, for I have raised a family of four boys and three girls, but it is still in good condition."—M. C. R.

"Would say from experience that a mixer is a most satisfactory device—a wonderful labor-saver. Of course, it must be used according to directions."—L. W. A.

"My health was very poor and I was unable to make my bread alone until I purchased a mixer. I have used mine for eight years and would hate to do without it. One has to become accustomed to using it as with any piece of machinery."—A. C.

"Twenty years ago I purchased a mixer, the occasion being that the young housemaid whom I had at that time desired me to teach her bread making. I did not fancy another's hands going into my bread, and I knew a mixer would make it clean and sanitary."—Z. F. W.

"I make fine bread with my mixer with very little work. It is practical and a small child can use it."—F. P. A.

"We think the bread made with a mixer has a finer grain than that made by hand. Don't be discouraged if your bread isn't good the first time, as you

THE SCHOOL LUNCH BASKET.

Second Prize.

Mrs. G. B., Nashville, Michigan.

I usually plan on having sandwiches, sauce or fruit, and cake or cookies. I sowed some upland cress that is very good for sandwiches.

The fancy frosted cookies always make the lunch more appetizing. By using common cake recipe I make little cup cakes and add cocoa, coconut, or sugar frosting to them. If sending pie, I think the little individual pies are good.

On St. Valentine day, I try to have a Valentine lunch. I make the sandwiches heart shape. The cookies I cut in heart shape, too, and cover with red and white candies. If one does not have a pastry tube one can make one of a funnel of paper and clip off the small end and squeeze icing through to make dainty designs.

Perhaps some mothers think this takes too much time, but I feel that I am well repaid.

MAKE FUDGE FOR THE WINTER EVENINGS.

TWO squares of bitter chocolate; two cups of sugar; one-eighth teaspoon of salt; three-fourths cup milk; one tablespoon of butter; half teaspoon vanilla; half cup raisins; half cup nut meats.

Melt chocolate and add sugar, salt and milk. Stir until mixture boils and sugar is dissolved. Cook without stirring until mixture forms a soft ball when tested in cold water. Remove from fire and add butter. When partially cold, add vanilla and raisins and beat until creamy. Pour in buttered pans and cut in squares.

What is good health worth to you?

HEALTH is priceless. You wouldn't knowingly part with it for anything in the world.

Why then do you risk it needlessly for the sake of a few cups of coffee? Coffee contains caffeine, a harmful drug which often interferes with nerves and digestion.

There's an easy, pleasant way to avoid this menace to health, without any sacrifice of comfort or satisfaction. Drink Postum instead of coffee.

Postum is a pure, cereal beverage—wholesome and delicious—a safeguard for health.

Your grocer sells Postum in two forms: Instant Postum (in tins) prepared instantly in the cup by the addition of boiling water. Postum Cereal (in packages) for those who prefer to make the drink while the meal is being prepared; made by boiling fully 20 minutes.

"There's a Reason"
for Postum

Made by
Postum Cereal Co., Inc.
Battle Creek,
Mich.



Silky Black Sateen HOUSE DRESS

Trimmed with Gay Flowered CRETONNE

For This SALE

\$2.49 On Arrival

2 for \$4.68

This stunning and most beautiful model is suitable for home wear and for street. Cut full and roomy. Elegantly made. Here is a wonderful value you should not miss. This apron dress of silky, lustrous black sateen, is trimmed with beautiful gay flowered cretonne. Neck pockets, half sash which forms into bow in back and sleeves are also trimmed with fancy white rick-rack braid. New style, novelty basket design pockets.

Send no Money

BUT ORDER QUICK. Give your name, address and size. We will send this dress by parcel post. Pay the mailman \$2.49 and postage on arrival as good faith deposit. Try the dress on in your own home. If not satisfied in every way, return it to us and we will refund every cent of your money including return postage. Can any offer be fairer?

STARR & STARR
Dept. 521 Chicago

FREE—To introduce our Pedigreed overbearing Strawberries we will send 25 fine plants free. Mason Nursery Company, Piedmont, Missouri.

Why Burn Coal

When you can get twice the heat at half the cost, by installing, in 5 minutes time, Uni-Hete Oil-Gas Burner in your range or heater. Thousands of homes now ending coal expense! Uni-Hete generates gas from common kerosene—cheapest fuel known. Red hot fire instantly. Cooks, bakes, heats. Sets in fire box of any stove. **FREE TRIAL.** Saves its small cost in 30 days. Lasts for years. Made by factory making heating devices for 33 years.

Agents—Special Offer—Act Quick High coal cost makes Uni-Hete a big profit maker for agents. Write at once.

Acorn Brass Mfg. Co., 232 Acorn Bldg., Chicago, Ill.

ALL FREE

COUNT THEM Gold finished Necklace, Handsome stone Brooch, Hawaiian Ring, Signet Ring with your initial and your Birthstone Ring. All Gold-Plated. Complete Jewelry Outfit FREE for sending 20 packages of BINGO Perfumed Ironing Wax at 10c. each. Extra present if you order now. Send no money. **BINGO CO. Dept. 408 BINGHAMTON, N. Y.**

EARLY-BIG YIELD STRAWBERRIES

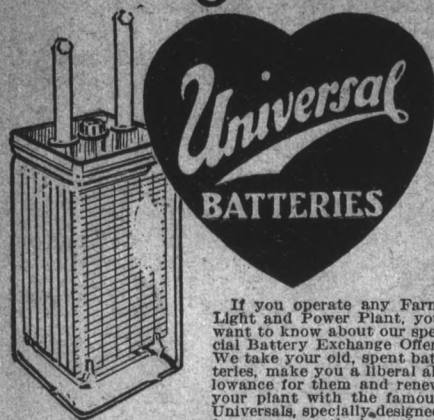
Make as high as \$1200 per acre with my plants. As for GIBSON, the hardest, the EATON, the exquisite. Reasonable price; quality guaranteed. Write for free catalog today. Lists best varieties Strawberries, Raspberries, Blackberries, Grapes, Etc. **LAKE SHORE NURSERIES, R. R. 1, Bridgman, Michigan**

STRAWBERRIES \$3 50

Per 1000. Standard varieties. Strong clean, well rooted Full line of Raspberries, Dewberries, Grapes, etc. send for catalogue. **HELLENGA'S NURSERY, Three Oaks, Mich.**

MICHIGAN FARMER Classified Liners bring results. They cost little. Try one.

How to Renew Your Light Plant



If you operate any Farm Light and Power Plant, you want to know about our special Battery Exchange Offer. We take your old, spent batteries, make you a liberal allowance for them and renew your plant with the famous Universals, specially designed for your particular plant. These time-tested long lasting batteries deliver a constant dependable flow of current. They make your lights burn brilliantly and steadily—no flickering—and provide abundant reserve power for heavy duty. As standard equipment on many of the best Farm Light Plants, thousands of them are now giving uniform satisfaction everywhere.

521 Experiments

Don't buy an unproven battery. Twenty years of successfully building batteries for every kind of use are behind every Universal. 521 costly experiments throughout these years, have developed these truly wonderful all-duty powerful batteries. Universal sealed glass jars are oversize, use low gravity acid, making plates last longer. Extra-size sediment space—no cleaning necessary. Universal Batteries come to you fully charged and sealed—ready to connect right up to your plant—no assembling.

We also make Radio and Automobile Batteries and Repair Parts For Any Make Battery.

Battery Guide Sent FREE

No matter what kind of Plant you have, this interesting book will show you just how to renew the system with Universal Batteries. The right size for every Farm Power and Light System made. It also lists Parts for all makes of batteries. "Care of Batteries" is another valuable treatise; will also be sent free with the new Universal Battery Guide. When you write, mention brand-name and age of your present batteries so that we can give you the correct allowance figure. Write today. (133)

UNIVERSAL BATTERY CO., 3416 So. La Salle St., Chicago, Ill.

A FINE FUR COAT

Made from Your Own Horse or Cow Hide.

We make this coat to measure from the hide you send. Write us for special low price.

Any Kind of Skin

We make up any kind of skin to suit your needs.

Also Ladies' Coats and Furs, Robes, etc.

We have been in the tanning business since 1878 and guarantee satisfaction.

FREE Book of styles of Men's and Women's furs.

Write for it today

Reading Robe & Tanning Co.
116 East St. Reading, Mich.

TANNERS

of CATTLE, HORSE, CALF, COON, FOX, SKUNK, MINK, MUSKRAT, WOODCHUCK, DOG, CAT and RABBIT SKINS.

What kind of skins have you? We make up and line Men's & Ladies' Fur Coats, Scarfs, Muffs, Capes, Collars, Robes and Mittens from raw skins. Circulars Free. Use plenty of salt on green hides.

W. W. Weaver, Reading, Mich.
Custom Tanner. 30 yrs. Experience.

War Time Prices

are over on Tanning Hides and Furs

and making them into FINE FUR COATS, FUR SETS, ROBES, ETC. Our Prices for doing this WORK are on a level with what the Farmers received for this year's crops.

Our CATALOG is Free. It tells how you can be the Wearer of a Fine Fur Coat, etc., at the lowest prices quoted in years for Custom Fur Work. Address

W. G. White
The Blissfield Tannery,
Blissfield, Mich.

WE TAN

nd make to your order from your cattle, horse and all kinds of hides and furs, men's fur coats, robes, caps, gloves, and mittens, ladies' fur coats and fur sets. Remodeling and repairing in latest styles. Ship us your work and save one-half. New Galloway coats, robes, gloves and mittens for sale. We are the oldest Galloway tanners; 34 years continuous business. Free style catalog, prices and samples. Don't ship your hides and furs elsewhere until you get our proposition.

HILLSDALE ROBE & TANNING CO., Hillsdale, Mich.

DOGS

Fox Hounds, Rabbit and Skunk dogs. All ages. Coon Hound Pups. W. E. LECKY, Holmesville, Ohio

Our Boys' and Girls' Department

My Favorite Winter Sport

As Told by Contest Winners

By Lucile Lawler, Houghton, Michigan.

My favorite sport is skating. I have been skating two years now, and although I am not a perfect skater, yet, I enjoy it very much. I go skating on the pond every night if the weather is nice. I study all my lessons before I go out, because I am in the eighth grade and would like to graduate in June, and one cannot neglect their lessons and pass, too. Can they?

I also go to the Amphidrome, which is a large building for skating. It costs twenty cents to get in and I go on Wednesday and Saturday nights. One night I was down there skating with one of my boy friends, when my skate got tangled in some man's skate, and as he turned around to try and separate the two skates, his skate hit me

girls will do this to your fort. Then you will have to look at things in a different manner. The boys' fort is not always the strongest built.

By Reuben Esch.

My favorite winter game is playing ball on ice on dull skates. When batting you will have to watch yourself

or your foot will slip, then you will miss the ball.

This game is played like baseball. But you play it on the ice with skates on. When pitching you might let your foot slip and make a ball. If you make four balls, the batter takes his base.

When catching you are liable to give a quick jump to catch the ball, and possibly fall, bumping your head, raising a welt as large as an English walnut. When running from base to base or on base, or in the field, there are many exciting experiences.

Our Letter Box

THIS letter box will be where the boys and girls can express their views, tell of themselves and things about the farm, or ask advice. The most interesting letters each week will appear here. Address your letters to me.—Uncle Frank.

Dear Uncle Frank:

I wrote to you once before, but my letter reached the waste basket. I also tried one of your contests, but failed. So here goes again.

My father takes the Michigan Farmer and likes it real well. But he is not the only one. I can hardly wait until the paper comes. As soon as I get home from school on Thursday, I sit down and read the paper. Hy Syckle, Al Acres and the wonderful page of the Boys' and Girls' Department are the most important parts of the Michigan Farmer, I think.

Well, this letter is getting long, so will close.—Another niece, Violet M. Olin, Stanwood, Mich., R. 1.

Thanks for your good words for the Michigan Farmer and this department. The department wouldn't be what it is if it wasn't for you boys and girls.

Dear Uncle Frank:

I have been a reader of the Boys' and Girls' section for some time, but I have never before attempted to write you.

I like outdoor sports very much. In summer I ride horseback and play ball with my brothers. I learned to skate on the ice last winter, but I haven't had a pair of skates on this winter. I think I've been too busy. I love to read novels. What girl doesn't? Of course, the boys make fun, but I think they are just as silly as girls at times. Don't you? I shouldn't have asked you that question, and you need not answer it. I forgot that you were once a boy.

Well, I must close for this time. It is very near my bedtime and six algebra problems are just dying to be worked.—A niece, Evelyn Hutchins, Quincy, Mich.

I hope those algebra problems were saved before they died. As for boys being silly—did you ever see one act silly? If you did then I guess they get that way, too.

Dear Uncle Frank:

I received the membership card and the Merry Circle button, and I am very much pleased with it. Thank you for it. I wear it on my coat every day.—Sincerely yours, Janice Bailey, Grayling, Mich.

I am glad you like the button and that you wear it every day. The other boys and girls also seem pleased with theirs.

Dear Uncle Frank:

I just started to write this letter and had to go and skin a rabbit, so if you see any "bunny hairs" in this letter you will know how it is.

There are quite a few rabbits in the country. I caught about ten rabbits in a rail pile near the barn this winter.

Say, I would like to give a few of the members of the Merry Circle some advice. "When you have the hiccoughs just see how close you can get the ends of your little fingers together and not touch them." That will cure the disease when water is not handy.

I play a cornet at school in the orchestra. Well, I think I have had about my share of your time. Write.—Your nephew, Culmer Peterson, Ionia, Mich.

I found no bunny hairs. I am going

to try that hiccough stunt next time. Am glad you are musically inclined. Play a few notes for me.

Dear Uncle Frank:

I am a boy ten years old. I hope you will take me in as one of your nephews.

My sister and I were down to a creek that runs through our farm, watching the ducks eat minnows. When we came up the bull chased us. He had horns, and I tell you he lost them mighty quick.—Sincerely Rolla Bronson.

It's a good thing that bull lost his horns when chasing you, or you might have been damaged some. Or did he lose them after the chase?

Dear Uncle Frank:

I haven't written before as I didn't know whether you would accept my answers to your puzzles or not, as I don't live in Michigan.

I have answered this puzzle, or rather questions to your ad-reading contest. If you can't accept them it will be all right with me. I will enjoy the magazine just the same.—From your niece, Mildred Jones, Alexandria, Mich.

I like the spirit of the last paragraph of your letter. However, state lines make no difference in our department. Come again often.

Dear Uncle Frank:

I didn't see any letters from around Wellston so I thought I would write one. Please let me become one of your nieces.

What are you girls and boys doing these fine winter days? I'm not doing much, only crocheting and reading. I went skating last Sunday and sure had a lot of fun. But I will have enough to do in the summer. Especially one thing, and that's eating watermelons. If any of you boys and girls want some, just come along.

Now, you don't need to think I can't work out of doors, for I can. But I am not a first rate cook. For sometimes the dog even has to go hungry for a while. I feel sorry for him, but I can't do any better. The dog's name is King; he is a good cattle dog.

I guess I will "beat it" or Uncle Frank will chase me out with a broom.—Your niece, Emma Sapatka, Wellston, Mich.

You ought to learn to cook for the dog's sake. And besides, cooking should be most every girl's accomplishment.

Dear Uncle Frank:

We are two boys (twins) fourteen years old. We live on a 320-acre farm. We think farm life is the only thing. We have been hunting very much this season. We have made about \$120 with furs.

We are in the ninth grade at school, and we find it very easy.

As our letter is getting rather long, we will close.—Your nephews, Jack and Bill Hood, Suttons Bay, Mich.

I am glad to hear from Jack and Bill. Can they tell you apart? My twin boys are entirely different.

Uncle Frank's Picture



To keep my promise, here is my favorite picture. I like it because it shows me smiling, which was a rare thing for me to do at three years of age. Of course, it was taken some time ago.

in the shin bone. I fell right over and was unconscious for quite a while. When I woke up I was stunned to see a doctor bending over me. My leg was all bandaged up and crowds of people were standing around me, and they all smiled as I opened my eyes. Most of them were strangers to me, but they talked very nice to me. I was in bed for three weeks, and people that I didn't even know came to see me.

I have all kinds of friends, and all through that little event. I like skating because it makes one healthy.

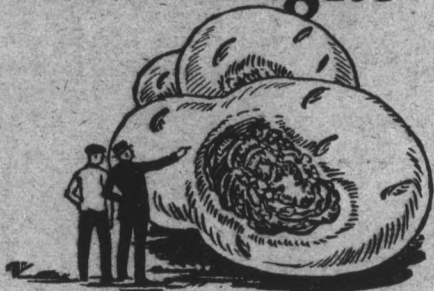
By Archie Roberts, Fennville, Mich.

My favorite winter sport is to build a fort at school and have the girls stand the boys. But there are more girls than boys and some of the girls can throw a snowball pretty hard.

I like to take about twenty snowballs and three boys, and go and get the girls angry. Then the whole bunch of girls will chase you back to your fort, never thinking to guard their own fort. The other boys will go and take the girls' fort while we are being chased. You can't play this trick on the girls more than once a week, because they get on to the trick.

Then you have to get four or five strong boys and a lot of snowballs and throw them as hard as you can. If the girls' fort is not built strong, it will sometimes fall in. Sometimes the

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Baby Chicks

Barred Rocks, R. C. Rhode Island Reds, Anconas, and White Leghorns. Chicks that grow fast, mature quickly and lay early. Our prices are exceptionally low. Write for catalogue and price list.

THE DUNDEE HATCHERY,
Box A, Dundee, Mich.

THE MERRY CIRCLE.

THOSE valentines certainly have come in fine. There are many dandy ones and I appreciate them very much. But we shall have to wait until next week to announce the winners.

The Merry Circle buttons are being distributed about, and I believe many of you have seen one on someone's coat or dress. We send out quite a few every day. Many have written that they have received theirs, but, of course, others have not acknowledged receiving them.

Once before, I think I mentioned that we had to send these buttons out under a one cent cancelled stamp because the big cancelling machines would tear the envelopes to pieces when they have the buttons in them.

One or two have complained that they did not receive the buttons when they were entitled to them. We want no one to be disappointed. So if you have had your Read-and-Win answers right during the last few weeks and have not received your button, please let me know.

I am anxious to hear from all who think they have earned a button and have not received it, as that is the only way I can tell whether the buttons are going through the mail properly or not.

Washington Contest

ALL of us know, or should know, quite a little about George Washington, the Father of our Country. As we all have studied his life as part of our school work, I believe a contest on "Lessons I have learned from Washington's life that have helped me most," will bring out some interesting and helpful things. Please write about two hundred words or less, on this subject. The ten best papers will earn pencil boxes, nicked pocket pencils, or Michigan Farmer maps of the world. All good papers will bring their writers a Merry Circle button and membership card.

Please send your papers to Uncle Frank, Michigan Farmer, Detroit, Michigan, on or before February 22.

BOYS' AND GIRLS' CLUB WORK PROGRAM FOR 1923.

BOYS' and girls' club work will be extended to include seventy counties of Michigan during the year of 1923, if plans described by R. A. Turner, state club leader, at the annual conference at M. A. C. in connection with Farmers' Week are carried out.

During 1922 club work was carried on in sixty-three counties, according to Mr. Turner. Boys and girls listed on the rolls of the various clubs numbered 18,056. Of these, 11,537 completed projects. This year it is anticipated that 18,500 boys and girls will be listed as club members. Fourteen counties will have full time club agents.

Mr. Turner exhibited maps showing the counties covered by club work and charts giving the total number of clubs of each kind. Following is the list of the special product clubs, with the number of counties in which they are organized and the total number in the state: Crop clubs, twenty-four counties, fifty-six clubs; poultry, thirty-nine counties, sixty-seven clubs; garden, fifteen counties, 193 clubs; handicraft, thirty-five counties, 175 clubs; garment, forty-two counties, 332 clubs; canning, thirty counties, 133 clubs; cooking, seven counties, twelve clubs; hot lunch, thirty-four counties, 170 clubs.



What! Shoot that horse?

"WHY, I wouldn't do that. She may be run down but she has a lot of work left in her yet. If you'll get a bottle of Gombault's Caustic Balsam and use it just like the direction book says, she'll be working again in a month."

"We've used Gombault's on our horses ever since it was first imported forty years ago. There aren't many horse troubles that it won't help. Say, I don't believe I could run the farm without it. No more firing—Gombault's does the same work and doesn't leave a scar or blemish or discolored hair."

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POULTRY

CHICKS

Barred Rocks, White Rocks, Rhode I. Reds, Wyandottes, Orpingtons, Leghorns—Wh. Br. Buff Anconas. Orders may now be placed for March, April, May, or June delivery. Our Poultry Circular describes 11 breeds; all guaranteed and sent postpaid. Note particularly our Superior White Leghorns and Superior Barred Rocks; Hens that are making egg records in the hands of our customers. Send for price list.

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From purebred egg type birds. Barred Plymouth Rocks, White Wyandottes, Rhode Island Reds, White Leghorns. Prompt delivery and safe arrival guaranteed.

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From 12 select heavy laying varieties of Standard bred poultry, free range and Hogen tested. \$12 per 100 up. Full value for your money. Shipped by prepaid parcel post and 100% live delivery guaranteed. Send for free catalogue and prices.

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Exhibition and utility strains from America's best. Barred and W. Rocks, R. I. Reds, W. and Brown Leghorns, W. Wyandottes, Anconas. Surprising prices, quality considered. 13 years hatchery experience. Catalog. Haight Hatchery, Cedar Springs, Mich.

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Are chicks that satisfy.

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From our high producing English American S. C. White Leghorns. From 910 pullets we averaged 178½ eggs per bird for the year. Be sure and get some of our chicks for 1923 from our high record hens. Send for price list. **LAROS POULTRY FARM,** Hart, Mich.

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White English Leghorns, Tom Barron strain; White and Barred Plymouth Rocks; S. C. R. I. Reds; Buff Orpingtons. All pure bred from selected stock. Live arrival guaranteed, postage paid. We do custom hatching. **Durand Hatchery,** Fenton, Mich.

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CHICKS from good selected heavy laying flocks of S. C. Buff Leghorns. We keep just the one breed. Write for circular. **Willard Webster,** Bath, Mich.

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win over all breeds at the egg laying contest. 30 eggs \$5; 50 \$8; 100 \$15 order from this at A-1 stock. **H. H. JUMP,** R. 5, Jackson, Mich.

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Additional Poultry Ads. on Page 243

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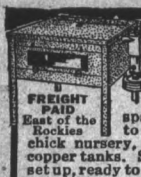
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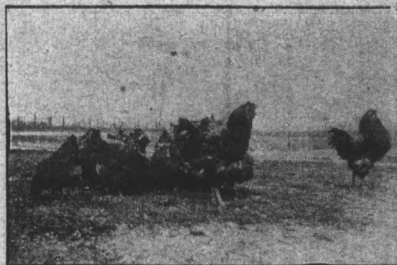
Poultry

Factors In Egg Production

AT the Round-up, C. M. Ferguson, of the college extension department, discussed the environmental factors which influence egg production. He says that ninety per cent of the failures with poultry are due to a lack of knowledge of details. Warm poultry houses are not good for the birds, due to dampness and poor ventilation. The house must be dry and well lighted.

Germes do not develop in a dry poultry house and the sunshine destroys many of them in a few minutes. A hen is a machine for taking feed and manufacturing eggs. Grains, greens, grubs, grit and gumption are five essentials. Try to imitate spring conditions in the laying-house if you wish winter eggs.

Here is the relation between the



Intruders Not Welcome.

number of whites and yolks contained in the different grains:

	Yolks.	Whites.
Corn	255	134
Wheat	243	182
Oats	195	155
Barley	203	145
Buckwheat	178	128
Skim-milk	22	52
Meat scrap	106	1,107

All the figures are on the basis of 100 pounds of each material. Too much corn causes the birds to store up fat. Oats are the nearest to a balanced ration. The hen does not use the protein content from cottonseed meal efficiently. Meat scraps are made from meat cuttings. The horn, hoof and digestive tract are used in tankage. The average grade of tankage is not as good as meat scrap.

The scratch grain ration in the laying contest consists of equal parts of cracked corn and wheat. Cracked corn is more easily digested than whole corn. Here is the mash ration used in the laying contest:

	Lbs.	Yolks.	Whites.
Ground oats	20	39	31
Bran	20	31	41
Middlings	20	41	44
Ground corn	20	40	27
Meat scrap	20	21	221

The corn in the ration is increased from twenty to thirty pounds in the winter to supply increased heat and energy. This is of special value for birds under lights. Bran has a good influence on the digestive tract. The use of mash keeps the flock in production even after the spring rush is over and it is advised even for farm flocks on free range where they are supposed to pick up more of their living than they really find. The hens have a limited range and this means only a few bugs per hen on hot summer days.

About ten pounds of grain per 100 hens per day is advised for the light breeds. The heavy breeds require about twelve pounds per 100 hens per day. Feed the flock lightly in the morning, giving about three to three and one-half pounds per 100 hens. At night give all they will clean up. When grinding wheat as a substitute for bran and middlings it pays to add ten per cent more bran. When feeding

semi-solid buttermilk it pays to dilute it at first. For green feed sprouted oats come first in quality. Mangels are the next best source of succulence followed by cabbages and then other vegetables. Potatoes are the best when fed boiled. Alfalfa hay is a very good roughage but not an entire substitute for succulence. Silage contains too much fiber to be a good substitute for succulent vegetables. One per cent of fine table salt can be mixed with the dry mash without danger.

SELECTION FOR EGG PRODUCTION.

IN Prof. E. C. Foreman's talk on scientific selection for egg production, he said that the majority of breeders who made entries in the laying contest sent birds that were too far advanced, meaning birds that had been laying for several weeks before the opening of the contest. They are then often thrown into a moult from moving. A breeder should not be disappointed by the showing during the first six or seven weeks as the breeding will show up if it is there.

In discussing individual layers it was found that a forty-four-egg hen produced them all in the spring. The eighty-five-egg hen laid only in the spring and summer. A production of 150 eggs is considered satisfactory. Hens that lay five or six eggs a week are apt to make good records, and intensity of production is important. Intensity, endurance and non-broodiness are emphasized as factors which make hens heavy layers.

Cold weather is not a handicap to production and it has been found easier to get high production in the winter than during July and August. A hen that laid 120 eggs went broody nine times, and a hen loses about fifteen days every time she goes broody.

The spread of the pelvic bones of a hen indicates immediate production but not the other characteristics of layers. It takes a bird that is a heavy eater to produce many eggs. The happy, industrious singing hen with a good laying cycle has the laying temperament. The breeder must look for keenness and intelligence in culling the flock.

The crow-headed hen may be crow-headed while growing, but later make a change in type. Crow-headed birds are caused by too close inbreeding and faulty brooding. Crow-headed birds are apt to produce slow feathering chicks which often take nine to twelve months to mature.

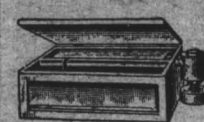
The refined type of head means intensity of production. The Jersey head on the Holstein body illustrates the type of layer that is apt to be a good producer. Cull out the hens with the beefy or masculine heads. Cull out the growing hens. Not over one hen in a thousand is that way. Hens with a heavy skull are apt to be of a broody nature. All late moulting hens are not heavy producers but it is a good general rule. Bald-headed hens are often high producers. Close feathered birds that are flat ribbed are best. Some of the best strains of Leghorns have broad flat backs. The round-ribbed conformation is a symptom of internal fat.

Hens generally moult starting at the tenth wing feather. The more new feathers in the wing the greater the rest periods. A hen with five new and

140 Egg Guaranteed Incubator

Here is the world beating, low price offer on high grade guaranteed hatcher. You waste money to pay more. The Detroit has double walls, hot water heat, copper tank, no cold corners, big nursery, automatic regulation thermometer that can be easily read without opening door and held in horizontal position so chicks cannot break or knock it down when hatching—all features that insure big hatches—strong, healthy, vigorous chicks.

Equal to Incubator Costing Twice the Price



\$7.10 For A 140-Chick DETROIT BROODER

An equally big bargain. Double walls, hot water heat, high class in every way and built to last. Write for complete description. You will marvel at this value. Can't be duplicated elsewhere in America. A triumph of mechanical ingenuity.



Both Incubator and Brooder \$17.50

This is my record smashing offer—complete hatching and chick raising outfit worth every cent of \$25.00 for a mere \$17.50. This offer is the sensation of the incubator industry. Big low cost production makes it possible. Order early direct from this ad, or send for special catalog giving complete description of both machines. Write for free copy.

DETROIT INCUBATOR COMPANY
Dept. 11, Detroit, Mich. Canadian Address: Windsor, Ont.

POULTRY

HIGHEST QUALITY CHICKS

Michigan's Old Reliable Hatchery

(The most modern and best equipped Hatchery in the state)

Pure Bred English and Amer-

ican S. C. W. Leg-

horns; S. C. Anconas; Barred

Plymouth Rocks and R. I. Reds.

Strong, well hatched chicks

from tested, Hogenized free range stock that

make wonderful winter layers.

Chicks sent by Insured Parcel Post Prepaid to

your door. 100% live delivery guaranteed. Fif-

teen years of experience in producing and ship-

ping chicks has given absolute satisfaction to

thousands. Write for illustrated free catalog and

price list. Get lowest price on best quality

chicks before you buy.

W. VAN APPELDORN, R. 7, Holland, Mich.



Egg-Bred Chicks

ENGLISH type White Leghorns, Brown Leghorns. From wonderful layers. 11 years of breeding for egg production. Breeders headed by large vigorous males from high record hens. Large combed deep bodied type. You will be proud to own a flock of these Leghorns. Live delivery guaranteed. Illustrated catalog free. Write today. Royal Hatchery & Farms, R.2, Zeeland, Mich.

B-A-B-Y C-H-I-X

Order Now For 1923

WHITE LEGHORNS AND MOTTLED ANCONAS Also Black Leghorns, Brown Leghorns, Buff Leghorns, Black Minorcas, R. O. Rhode Island Reds, Barred Plymouth Rocks, White Plymouth Rocks, Silver Wyandottes, White Wyandottes. WE HATCH eggs from Hogenized flocks on free range on separate farms. Send for Price List.

CRESCENT EGG COMPANY
Allagan Michigan

JUST-RITE Baby Chicks LOOK!

A Hatch Every Week All Year

NABOB HATCHERY, Dept. 15, Gambier, O.

Pioneer BABY CHICKS

Pure breed, Tom Barron, English White Leghorns and Barred Rocks. Chicks that satisfy, 100% live delivery guaranteed with right prices. Send for our illustrated catalogue and price list before ordering. We save you money. PIONEER POULTRY FARM & HATCHERY, Box A, R. 10, Holland, Mich.

BABY CHICKS

Chicks with Vigor and Pep from heavy laying strains.

	Per 100	Per 1000
R. I. Reds	\$15.00	\$145.00
Barred Rocks	15.00	145.00
White Leghorns	12.00	110.00
Anconas	13.00	125.00

A. D. RICHARDSON HATCHERY, Dundee, Michigan

BABY CHICKS

8 leading varieties; free range, pure bred stock, 100% live delivery guaranteed. Postage prepaid. Catalog and price list free.

Scott Bros. Hatchery, Edison, Ohio.

Barred Rocks egg contest winners, eggs from a rain with records to 250 a year. \$2.00 per setting prepaid by P. P. Circular free. FRED ASTLING, Constantine, Mich.

five old feathers has probably done considerable resting.

In selecting male birds, study the head. Excessive length means a long time for maturity. Use the male bird with a shorter head if you wish early maturity. The bird should have a broad, flat back, flatness of rib and early maturity. The early crowing is a sign of early maturity but the size at maturity should also be emphasized.—K.

FOR ROUP.

I SEE in the Michigan Farmer that there are some who ask what to do for roup in hens. Here is a very simple remedy. Take a pail of warm water and put about three ounces of kerosene in the water. Then take each chicken by the feet and wings, dip them and then wipe them dry and keep in a warm place. They will come out all right. I have tried it this fall and so did my neighbors without the loss of one hen. They should be dipped again in a day or two. Also give them some good tonic.—Mrs. H. McCoy, Montcalm County.

WASHINGTON, THE FARMER.

roughly, fifty miles in circumference. His laborers were housed in a large village with stores which had on their shelves anything from a quinine pill to a baking kettle. He kept a magnificent coach drawn by four carriage horses, just for the convenience of his wife. He often rode forty to fifty miles a day on horseback, overseeing the farm work, without leaving his own farm. He entertained a hundred guests at a time for a week or a month, and thought nothing of it. He devoted at least half of his time to public business which paid little if any salary. With all this expense, he made the old farm pay so that he was two hundred thousand dollars richer when he died than he was when he took over the farm. He practiced rotation of crops, cover crops, built his own fences from his own rails, invented and made his own farm tools and left his farm soil richer than it was when he took the place.

Washington heartily disliked hero worship and public acclaim. He was a very poor speech maker. His greatest happiness was found on the farm. Washington was a real dirt farmer.

FEEDING DUCKLINGS.

Can you tell me how many ducks I can keep with one drake? Can you tell me how to handle little ducks, and what I should feed them? I hatched quite a few last year but only raised four.—E. B.

Five ducks to a drake is a suitable ratio early in the season. Later a good per cent of fertility may result from using seven or eight ducks to a drake. A good first feed for ducklings is equal parts of corn meal, bran and stale bread. To this cereal mixture add about ten per cent of beef scrap and about twenty per cent of green food, such as fine grass clippings. Ducklings are often injured by using too concentrated a ration.

BLUE OINTMENT FOR SETTERS.

Would blue ointment put on my setting hens spoil the eggs for hatching?—A. S.

I always treat each setting hen with blue ointment a day before the eggs are placed under her, if the flock has not been recently treated. The ointment should be used sparingly and rubbed in thoroughly. I have never found that a small dab of the ointment under the vent and under each wing ever caused any injury to the hatching eggs. Of course, grease injures eggs, but there is not enough used in louse treatments to smear the eggs.

TRY This Canopy-Brooder 10 Days At Our Risk



Yes, sir! Just to prove to you that the NO-COLD BROODER STOVE is the best canopy brooder on the market, we will let you try it on your own little chicks for 10 days at our risk. Then if you don't say it's the best you ever saw at any price, ship it back to us and you won't be out one cent.

The No-Cold Brooder Stove

Guaranteed to Satisfy

The burner of the "No-Cold" is wickless. It starts on oil and burns oil with a steady, hot blue flame. No smoke. No soot. No coal to carry. No ashes. You start it and then you can forget about it. Entirely automatic in operation. Our Special Oil Controller keeps the temperature constant, day or night. Can't go out. Can't overheat. Can't overheat. Average oil consumption of only 1 gallon every 48 hours. Send for our free catalog folder and special 10-day Free Trial Offer, before you buy. Postal brings complete information. Write for it today.



Inter-State Sales Co.
302 Ash St., Tipton, Ind.
Dealers and Agents Wanted



140 EGG Wisconsin ONLY \$13.25 Freight Paid

Just think of it! This fine, California Redwood Wisconsin 140-Egg Incubator, with double walls, dead air space between, hot water heat, copper tank and boiler, double glass door, nursery, self-regulating—everything complete, set up ready to run, for only \$13.25, freight paid east of Rockies. With 140-chick hot air brooder, only \$17.75.

180 Egg size, only \$15.75 with Brooder, both \$22

You take no risk in buying Wisconsins. You have 30 days to try them—money back if not pleased. Select the size you want—order today.

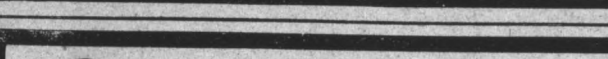
30 Days Trial Why Pay More

For those who want Colony Brooders here is the finest on the market. Automatic control—can't go out—can't overheat—burns steady blue flame—no wick—no troubles. Look at these

Express Paid Prices 22 in. Canopy, 100 chick, \$8.95
32 in. Canopy, 300 chick, 15.55
42 in. Canopy, 500 chick, 17.75

Write for our New 1923 Catalogue or order direct from this ad.

WISCONSIN INCUBATOR CO.
Box 116, Racine, Wis.



This Big 250 Egg Size only \$22.75
With Hot Air Brooder \$31.00

Egg Bred BABY CHICKS

The Best Laying Strains on Earth

Barron English White Leghorns, Brown Leghorns, and Anconas. During 1923 we will sell 30,000 strong, healthy, super-hatched chicks weekly, bred from strains backed by 18 years of actual egg breeding on our Farms. The enormous output of these quality chicks enables us to sell these money-makers at a price unequalled. Our flocks are culled out annually by poultry experts and are mated to large, vigorous 260-288 egg Pedigreed Males from Funk Farm direct.

Hundreds of Customers Report Big Profits

E. I. Beebe, St. Charles, Mich. writes: My 100 hens laid 193 eggs each and I made over \$300.00 clear profit last year.
Wm. Vivant, Harbor Spring, Mich. writes: We got 5328 eggs in January from 180 pullets.
A. Dall, Port Huron, Mich. The pullets began to lay at 4 1/2 months old and averaged 23 1/2 eggs each for one month.
F. L. Hess, Chicago, Ill. writes: I averaged 112 eggs a day from 140 hens and sold \$158.00 of eggs in February.

Raise Good Stock and Reap a Golden Harvest

We don't boast on a few high record birds but our extraordinary flock's average has attained our present high standard. Intelligent chick buyers look for these qualities and we assure you we have them. Get our 1923 large catalog now, it's free.

Wyngarden Hatchery, Box M, Zeeland, Michigan

BABY CHICKS Pure Bred for 1923

Bred to lay from carefully mated Flocks, of standard Quality and for Egg Production. We offer you exceptional values in the breeds, Leghorns, Rocks, Reds, W. Wyandottes, Orpingtons, Minorcas and Anconas. Our prices are right when Quality is in consideration. This should be the main point in view. For success, get our Big Catalog of Chicks and Brooders, we have a special offer for you, also how to care for your chicks after you have them. It is Free.

Wolf Hatching & Breeding Co., Dept. 10, Gibsonburg, Ohio

BUY HUBER'S RELIABLE CHICKS

Our 14th Year 1,000,000 For 1923

By Parcel Post Prepaid. 100% Live Delivery. Give us your order for some of Our Reliable Chicks and we will prove that we give you better chicks, for the money than you can get elsewhere. Combination offers and Specials offered. Order early. Write for prices and Free Illustrated Catalog.

HUBER'S RELIABLE HATCHERY, East High Street, FOSTORIA, OHIO

MICHIGAN CHICKS

Guaranteed Michigan Bred and Hatched

WHITE & BROWN LEGHORNS, ANCONAS, 50, \$7; 100, \$13; 500, \$60.
BARRON ROCKS, R. & S. C. REDS, 50, \$8.50; 100, \$16; 500, \$75.
1,000 orders at 500 rate
RHODE ISLAND WHITES, 100, \$18; 200, \$35.
Postpaid, full live delivery guaranteed. Strong, vigorous Chicks from select, heavy laying flocks. Order NOW right from this ad. get them when you want them. I want your business and will try to hold it. Reference, Holland City State Bank.
KNOLL'S HATCHERY, Box H, Holland, Mich.

POULTRY

BABY CHICKS



Bargain Prices—Write Quick. Best paying, highest quality, Pure Bred Tom Barron and Hollywood

White Leghorns—Egg Records 270 to 300 eggs in one year—Brown Leghorns, Anconas, Barred Rocks, Rhode Island Reds, White Wyandottes. Book orders now—get liberal discount. Valuable catalog free.

We guarantee to save you money—give you strong, healthy, perfect chicks, the best that money can buy, guarantee live delivery, and absolute satisfaction. Write today sure.

SUPERIOR POULTRY FARMS
Box 101 Zeeland, Michigan

Whittaker's R.I. Reds

Michigan's greatest color and egg strain. Bred from winter layers for thirteen years. Customers report flock average of 24 eggs per hen for January. 2 pound broilers at 7 weeks, 2 1/2 pound broilers at 9 weeks. Write for free catalog quoting prices on eggs and chicks. Rose and Single Combs.

INTERLAKES FARMS

Box 39, Lawrence, Mich.

QUALITY CHICKS 8 1-2c up.

Barron English White and Br. Leg. and Anconas. Strong, sturdy chicks from scientifically culled M. A. C. Inspected free range breeders. Ten years of consistent breeding for heavy egg production. Wonderful winter layers. Winners at leading shows. Buy direct from Modern 65 acre poultry farm. Shipped postpaid. 100% live arrival and absolute satisfaction guaranteed. Illustrated Cat. free. Write today. Townline Poultry Farm, Dept. M., Zeeland, R. I., Mich.

CHICKS WITH PEP

Try some of our guaranteed Hogan Tested, Dont-Stop-Laying kind of chicks. They will pay you big. Rocks, Reds, Wyandottes, Leghorns, Minorcas, Anconas, Orpingtons. Catalog Free. Postpaid Safe Delivery.

Member I. B. C. Association
Holgate Chick Hatchery, Box M, Holgate, Ohio

Make Money

Returns—commence on your investment in 4 1/2 months from the time you receive your strong pure bred chicks from our own free range farms of S. C. English White Leghorns, Barred Rocks, Anconas. All breeders inspected and approved. Years of good egg breeding back of them. Our catalog for terms, guarantee, delivery, etc. It's free. Write today. RIVERVIEW POULTRY FARM, R. 2, Box M, Zeeland, Mich.

Pedigreed State Approved S. C. W. Leghorn CHIX

American-English Strain

Are you going to buy them from a hatchery or from a BREEDER? Buy from Michigan's Largest Leghorn Farm and insure success. We hatch our own eggs only. Supply limited. Prices reasonable. Satisfaction guaranteed. Descriptive circular tells all about them. It's free.

Simon Harkema & Son, R. 1, Holland, Mich.

CHICKS \$10.50 AND UP

From Hogan tested hens. Wh. Br. & Buff Leghorns, 50, \$7; 100, \$13; 500, \$62.50. Bar. Rocks, Anconas, 50, \$7.50; 100, \$14; 500, \$67.50. Reds, Wh. Rocks, Minorcas, 50, \$8; 100, \$15; 500, \$72.50. Buff Orpingtons, Wh. Wyandottes, 50, \$9; 100, \$17; 500, \$82.50. Mixed, 100, \$11; 500, \$52.50. Order now. Catalog Free. Eggs for Hatching. Ref. 4 Banks. Tri-State Hatcheries Box 512, Archbold, Ohio

GUARANTEED BABY CHICKS

From World's Champion Layers. Certified, Trap-Neated, Pedigreed, Snowden's English White Leghorns, 260-291 Egg records. Sheppard's 331 Egg strain Anconas. Guaranteed strong healthy chicks. Real money makers. Beautiful Catalog FREE.

FRANK A. VAN BREE, Box 32, Zeeland, Mich.

BETTER BABY CHICKS

Toledo's largest hatchery. Known for quality. All leading varieties hatched daily. Complete catalog and prices. Both phones.

Mellwood-Continental Hatchery
1806 Superior St., Toledo, Ohio

CHICKS THAT MAKE PROFITS

Strong, vigorous, well hatched from leading breeds of heavy layers. Moderate prices, 100% live delivery guaranteed. Postpaid. Catalog giving full particulars free. Bank reference. BLUFFTON HATCHERY, Box M, Bluffton, Ohio.

EVERLAY BROWN LEGHORNS

The beautiful business hen! Wonderful winter layers. Big white eggs. World Record layers American Egg Contest! Greatest winners New York, Chicago, Hardy, vigorous money makers. Stock Eggs, Chicks, shipped safely. Catalog free.

EVERLAY FARM Box 22, Portland, Ind.

CHICKS

We ship everywhere. Safe arrival guaranteed. 20 thoroughbred varieties. Hatched right. Member Int. Baby Chick Assn. Catalog free.

Mammoth Hatchery, R. F. D. 30, Glen Ellyn, Ill.

Baby Chicks Selected chicks from the heart of the baby-chick industry. Leading pure breeds from heavy egg producing strains. Alive delivery guaranteed. Send for catalogue and prices.

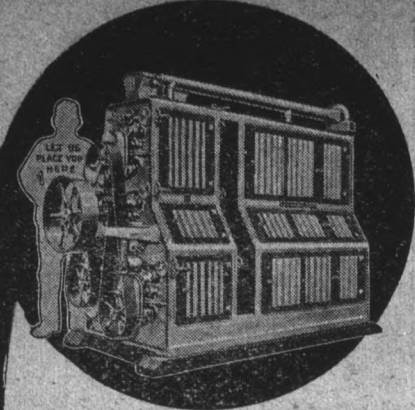
L. Van Hoven & Bro., Zeeland, Mich.

S.C.W. Leghorn Baby Chick's

From large can strain of heavy winter egg producers. All eggs set produced by our own breeding pens. Price \$12 per 100. Cruse & Warner, Hudson, Mich.

5 to 6 lb. White Leghorns
Larger hens, better winter layers. Send for free catalog full of information.
A. W. WAUGHEN, Gobleville, Mich.

Additional Poultry Ads. on Page 243



**You Can Make
\$500.00 to \$1000.00**

a Month Milling
"Flavo" Flour

In your community on this New Wonderful Mill—no previous milling experience necessary.

A North Dakota miller writes: "I cleared \$500.00 last month on my 25 bbl. Midget Mill."

A Tennessee customer says: "My books show a gross profit of \$23.50 per day for my Midget Mill."

A Kansas man with no milling experience says: "My Midget made me over \$8,000.00 net profit the first eight months."

Be the Mill owner and have a permanent business that will earn you steady profits the entire year. Grind the home-grown wheat in your mill, supply community with flour and feed.

You save the freight out on the wheat and on the incoming flour and feed. You make the regular milling profits and extra added profits by milling a "Better Barrel of Flour Cheaper" on the new and wonderful "Midget Marvel" self-contained, One-Man Roller Flour Mill that is revolutionizing milling because of its big yield of high-grade flour at low cost. When you purchase a Midget Marvel Mill from us you have the right to use our nationally advertised brand

"Flavo" Flour
Famous for its Flavor

3,000 communities already have Midget Marvel Mills. There is a demand in your community right now for "Flavo" Flour. It is the most pleasant, dignified and profitable business in which you could engage. It will make you financially independent. Start with a 15, 25 or 50 bbl. Midget Marvel Mill, according to the size of your community. You can do so with comparatively little capital. This is a real life-time, red-blooded proposition—are you the right man? If you are, then we will sell you one on 60 days free trial.

Write for the free "Story of a Wonderful Flour Mill" and full particulars. Do it now before some one else takes advantage of this wonderful money-making opportunity in your community.

THE ANGLO-AMERICAN MILL COMPANY
2334-2340 Trust Bldg.
OWENSBORO, KENTUCKY



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To Work
For You**



**THE SIMPLEST
MILKER MADE**

Furnished in units for herds of five cows or more. Pump-pulsator type. Gives complete vacuum release on teat; safe, smooth natural action.

"SEE-THRU" Teat Cup
Patented exclusive feature. See all teats milking. One piece—clear as crystal—as easy to clean as a dish. Most lasting, greatest milk-er improvement invented.



WRITE
Get particulars on complete United line Separators Feed Mills Washers Engines Just what you want in America's Greatest Values Ask your dealer



United Engine
1 1/2 to 12 H.P. Gasoline or Kerosene—200,000 in use. Get all facts today.

UNITED ENGINE CO.
Dept. B Lansing, Mich. (27)

**THE GREAT UNITED LINE
FARM MACHINES**



Udders Like Silk

BAG BALM heals the injured tissues. B Penetrates, softens and restores. Easy to apply; quick results. Heals cuts, scratches, bruises, chaps, Caked Bag. Fine for any sore anywhere. Big 10-ounce package, 60c at drugists, feed dealers, general stores.

SAMPLE FREE to new users if dealer's name is given. Ask for booklet, "Belly Wrinkles".
DAIRY ASSOCIATION CO., INC., Dept. D
Lyndonville, Vt.

Dairy Farming

Children Tell Value of Milk

NO one knows the influence to come from teaching school children the value of drinking milk. The good to be accomplished is inestimable.

Here are some testimonials written by children themselves, showing in a variety of ways, how the dairy diet is building strong bodies and minds for our boys and girls. These letters came in a single day to the offices of the national dairy council. The reading of them will make you laugh and, possibly, cry. Robert Glen Harvey, a real school-boy, gives us this straight-from-the-shoulder message:

"When you drink milk you grow strong and fat. It is better to drink milk because it makes you strong, but when you eat candy you get a toothache. If you drink milk you will be a good boxer. So if any boy comes along and gets wise with you and puts up a fight you can give him a wallop in the nose. Then you can say to him, 'I drank milk and you didn't, so I got the best of you.'"

"When you drink milk and the school nurse comes along for you to get weighed, you will be sure to weigh enough. Before milk came around to the schools the children used to grow very hungry at recess time. Before milk came the children used to sit still and look very weak. But now they make a mad rush for the milk. Milk will give you good health and strength. When you drink milk, you grow big and tall. It is not good to be a little boy because all the big boys will call you 'shrimp,' 'shaver,' and 'rat.' It is better to drink milk and get your health than not to drink milk and get your wealth, because health is better than wealth."

Some Interesting Extracts from Other Letters.

"When I was in the sixth grade I was not doing good work. I knew that I was going to be put back. Then I started to drink milk and it helped me out a lot. I was not kept back, so you see what the milk did."

"I feel much stronger now. I drink

a quart and a pint every day."

"We have some very interesting posters that you sent us. We also have your milk buttons that you sent us. We have a poster that our teacher made. It is a long piece of paper and at the top there is a picture of a bottle of milk. Every one in the room that takes milk gets their name on the list and a blue star placed beside it. Every week they take milk another star is added."

"I drink milk now and like it. When I drank milk before it made me kind of sick. But I know a girl that did not like milk but she took it and it made her big and strong, so we started to get milk at school. I also made up my mind to take it. I have taken it quite a while now and like it very much. Milk is very good for you and people ought to drink more of it. I am sorry I did not force myself to take it long before I did."

"Before taking milk I was not very strong. When I started to drink milk I got very strong and big."

"I think milk is better than candy. I am not going to eat so much candy any more."

"My New Year's resolution this year was, 'no more candy.' I am going to spend some of my money for milk at school instead."

"Each year a doctor comes to the school and weighs us. This year I weigh 101 pounds, and only about two months before when I weighed myself I only weighed ninety-four pounds."

"We have your posters and your pins. We will wear the pins and look at the posters. I drink milk for breakfast, dinner and supper. It is better fun to drink it with a straw."

CHAPPED TEATS.

CHAPPED teats are very common in winter and often caused from washing the udder, or the teats getting wet and chapping in the cold wind. I find some cows give more trouble from this source than others. If it is necessary to wash the udder,

New Farm Bureau Officers



TOP row, left to right: E. A. Beamer, Blissfield, Live Stock Exchange, director; C. L. Brody, secretary-manager; Mrs. Edith M. Wagar, Carleton, director; Fred Smith, Elk Rapids Potato Exchange director; Fred Van Nordsall, Three Rivers, treasurer; L. Whitney Watkins, Manchester, director; W. E. Phillips, Decatur, president and Elevator Exchange director; Jas. Nicol, South Haven, director; M. B. McPherson, Lowell, director. Bottom row, left to right: E. C. McCarty, Bad Axe, director; M. N. Noon, Jackson, vice-president and Milk Producers' Association director; George Friday, of Coloma, director; Verne Gormley, of Newberry, director.



All the Gold mined since 1885 would be required to pay for One Year's Dairy Products.

The United States is a great gold producing country; and yet, according to Dr. Larson, head of the U. S. Dairy Division, it would require all the gold produced in the United States since 1885, up to the present time, to pay for the farm value of one year's dairy products.

Dairying Pays Best

During 1922, grain marketed through dairy cows has returned its owner 32% more than if marketed through beef animals; 28% more than if marketed through hogs, and 41% more than if marketed as grain.

Yet in spite of this enormous production and relatively greater profit, dairying has not been overdone. Dairy products are higher in price than a year ago, there are less in storage, and consumption is steadily increasing.

Cream is Gold

If every cream separator user thought of gold in place of cream, every separator would be selected only on the basis of greatest skimming efficiency and durability, and not for some "talking point" or "low price." No one would deliberately throw gold away, and yet there are hundreds of thousands of worn-out and inferior cream separators in use today, wasting cream twice a day, 365 times a year.

De Laval the Best

The De Laval is the world's greatest cream saver, as proved by the fact that there are more in use than all other makes combined—that 98% of the best creameries use De Laval—that they are used and endorsed by dairy authorities and leading dairymen everywhere—and have won thousands of contests and over 1000 grand and first prizes.

It is the best and the cheapest cream separator. One can be bought on such easy terms that it will pay for itself in less than a year. Why not see your De Laval Agent at once, or write us for full information?

The De Laval Separator Co.
NEW YORK CHICAGO SAN FRANCISCO
165 Broadway 29 E. Madison St. 61 Beale St.



More and Better Silage

Silage from a Natco Silo is sweeter and more nourishing winter and summer, because the enclosed air spaces better resist air, frost, heat and moisture. A Natco Silo of glazed, hard burned fire clay, reinforced with best steel,

will not rust, rot, burst, blow down or burn up. Easily and quickly erected. Write for the new Natco on the Farm Book and ask for prices, terms and guarantee.

NATCO DOUBLE TILE

NATIONAL FIRE-PROOFING COMPANY
1304 FULTON BUILDING PITTSBURGH, PA.

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Every man who milks cows for a living knows that *Yield* is one of the best reasons for Holsteins.

Yield To You Will Mean:
Dependable Cash Income - Profits
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Better Things for the Family

Holsteins hold all world's records and average highest over all breeds for both butterfat and milk yield.

Let Us Tell You the Story
of the Holstein Cow.

EXTENSION SERVICE,
The Holstein-Friesian Association of America
230 East Ohio Street, Chicago, Ill.

HOLSTEINS

MYERS

HONOR-BILT

FOR fifty years Myers
Pumps have led the field.
Myers Cog-Gear Hand Pump,
Electric House Pump and
Self-Oiling Bulldozer Power
Pump are but three of this
world famous line. All low
in cost, simple, dependable.

(10) Myers means highest-quality
Pumps, Door Hangers,
Hay Tools. See your
dealer or write

THE F. E. MYERS
& BRO. CO.
341 Church St.
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PUMPS

New 300 Candle Power Lamp



Make \$60 to \$100 a Week
Introducing this wonderful
new lamp. Gives soft, brilliant light;
restful to eyes; ideal illumination.
Burns Kerosene or Gasoline.
Clean, odorless, economical. Burns
96% air, 4% fuel. Absolutely safe.
Lights with match. 100 times
brighter than wick lamps. Patented.
Greatest improvement of age. Table
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Work all or spare time. You simply
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Post and do collecting. Com-
missions paid same day you take
orders. No experience necessary.
Get started at once. Big season
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THE AKRON LAMP CO.
382 Lamp Bldg., Akron, O.

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to any land owner—Ropp's
New Calculator. Answers 75,000
farm problems; saves figuring; pre-
vents mistakes; ask, too, for

Square Deal Fence

catalog that shows you why the best
fence you can buy is always cheapest
in the long run. Square Deal
looks better, wears longer, costs
less. Send postal for
2 FREE books.

Keystone Steel
& Wire Co.
4908 Industrial St.
Peoria, Ill.

KITSELMAN FENCE

GET IT FROM THE
FACTORY DIRECT

Elford Parski, Kearsarge,
Houghton Co., Mich., says:

"Saved Half by Ordering of You"

Cut your own fence costs
to the bone by buying direct
from us at Lowest Factory Prices.
We Pay the Freight.

Write today for Free 100-page Catalog of
Farm, Poultry and Lawn Fence, Barbed
Wire, Gates, Posts, and latest low prices.
KITSELMAN BROS. Dept 278 MUNCIE IND.
America's Oldest Fence Manufacturers.

MILKBOTTLECAPS

WILL FIT ALL STANDARD MILK BOTTLES
PARAFFIN AND PRINTED RED LIKE DESIGN
BOX CONTAINS 1750 UP CAPS or 2000 WITHOUT
LIP. PARCEL POST PREPAID—ORDER A BOX NOW
THE AMERICAN MILK CAP CO. 5 NORTHWESTERN STATION, DETROIT, MICH.

AGRICULTURAL LIME

The strongest in Ohio.
Free Booklet and Sample upon request.
THE SCIOTO LIME & STONE CO.
DELAWARE, OHIO.

or even sponge it off, the teats should
be thoroughly dried. I have found it
an excellent practice where cows give
trouble with chapped teats to use vas-
eline while milking, just enough to
grease the teats. By using vaseline
during the process of milking, the oil
is worked into the cracks and seals
them up, keeping the air out and pre-
venting further chapping.

Not infrequently cows contract the
habit of kicking from no other cause
than chapped teats. Cows subject to
chapped teats should be given special
care to see that the teats are dry af-
ter milking and before turned out for
exercise. The milking should be done
carefully and in a gentle manner, not
to cause irritation. Do not punish a
cow for kicking or stepping away from
the milker while being milked if she
is suffering from chapped teats as they
are very painful.—Leo Reynolds.

STOCKS OF CREAMERY BUTTER ARE LOW.

THE government tells us that the
amount of creamery butter in stor-
age is unusually low. On January 1
these stocks amounted to 26,941,000
pounds, as compared with a five-year
average of 51,093,000 pounds. During
the month of December the amount in
storage decreased forty-four per cent.
Of packing stock butter the same may
be said, the volume in storage the first
of the year being about one-third of
the average for the previous five
years.

FALL FRESHENED COWS ARE THE BEST PRODUCERS.

IN scanning the reports of cow-test-
ing associations we are moved to
state that it is more desirable from a
production standpoint to have the
cows come fresh in the fall than at
any other season. In sixty-four cow-
testing associations with a total of
10,870 cows, those freshening in Sep-
tember, October and November aver-
aged 6,689 pounds of milk and 268
pounds of butter for the year. Those
freshening during the winter, spring
and summer periods produced 6,439
pounds, 6,951 pounds and 6,842 pounds
of milk, and 258 pounds, 236 pounds
and 236 pounds of butter-fat respec-
tively. These averages lead us to say
"Amen" to the long-held conviction of
old dairymen for years back that fall
freshening cows produce heaviest.

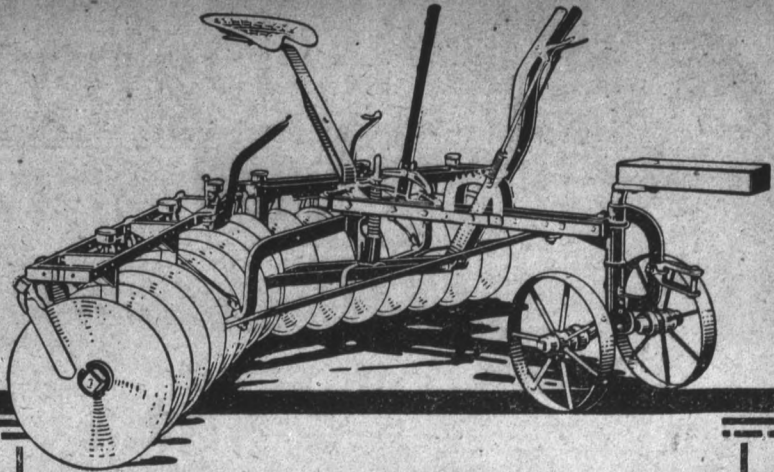
MILKING MACHINES BECOMING MORE POPULAR.

CERTAINLY the milking machine
has won its permanent place in
the dairy business. Wherever one
goes in dairy communities he finds
these machines in successful opera-
tion.

The field is expanding. Reports
from the far north show this. In Man-
itoba one order has just been placed
for \$30,000 worth of these machines.
The shortage of labor upon farms, and
the limited dependability of many of
the men available for milking, makes
the milking machine a life-saver for
many farmers.

LAST CALL ON FILLED MILK BILL.

THE time has come where every
dairy interest must unite in a final
effort to get a vote in the senate or
the bill will not pass at this session
and the whole fight must be made over
from the beginning. If you want the
filled milk industry to continue as a
menace against the dairy industry,
keep still and do nothing. If you want
the Voight bill to pass, write now to
your senator, asking to have a vote
on the Voight bill. It has been reported
favorably by the senate committee
on agriculture and is on the senate cal-
endar. Write your senator today.



Penetrates, Pulverizes, Packs Better—It's Flexible

Conforms to uneven surfaces of the field—does a
better job of disking than any rigid or less flexible
harrow on rough ground, over ridges and in dead
furrows.

John Deere Model "B" Disc Harrow

Completely disks the soil.
By means of third lever and
powerful pressure spring the
gangs of this harrow can be
given the required pressure
to make the harrow pene-
trate, at even depth, its full
width under all the above
soil conditions.

The Model "B" is extra
strong. It has all-steel frame;
double bar, riveted gang
frames; convenient grease
cups; spring steel, oscillating
scrapers.

Made in standard widths
with standard size discs.
Rear gang extra—also trac-
tor hitch.

FREE BOOK. Write today for booklet describing this flexible
harrow. Tell us what other implements you are interested
in and we will also send you "Bookkeeping on the Farm"—
just the book in which to keep your records. Address John
Deere, Moline, Illinois and ask for Package BX 422.

JOHN DEERE

THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

4 TIMES Around the World with ONE OILING 100,000 Miles Without Stopping for Oil



An inventor who could develop an automobile, a railroad car or any
other conveyance on wheels which would perform such a feat would
be considered a wonder. But such is the record of regular
accomplishment by the Auto-oiled Aermotor during the past
eight years in pumping water.

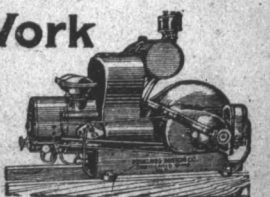
Did you ever stop to think how many revolutions the wheel
of a windmill makes? If the wheel of an Aermotor should roll along the surface
of the ground at the same speed that it makes when pumping water it would
encircle the world in 90 days, or would go four times around in a year. It would
travel on an average 275 miles per day or about 30 miles per hour for 9 hours each
day. An automobile which keeps up that pace day after day needs a thorough
oiling at least once a week. Isn't it marvelous, then, that a windmill has been
made which will go 50 times as long as the best automobile with one oiling?

The Auto-oiled Aermotor after 8 full years of service in every
part of the world has proven its ability to run and give the most reliable service
with one oiling a year. The double gears, and all moving parts, are entirely
enclosed and flooded with oil all the time. It gives more service with less attention than
any other piece of machinery on the farm. To get everlasting windmill satisfaction buy the
Auto-oiled Aermotor, the most efficient windmill that has ever been made.

For full infor-
mation write
AERMOTOR CO. Chicago Dallas Des Moines
Kansas City Minneapolis Oakland

The One ENGINE for All Farm Work

Change power as you change jobs—Turn on
more power or turn it down as needed—1½, 2,
3, 4, 5, or a strong 6 H. P. all in one engine. Light to
move—Sets anywhere without fastening down.
Runs Washer, Pump, Saw, Grinder, Etc.
Busiest machine on the farm—Kerosene or gasoline—Starts easy—No
cranking—Durable, Reliable, Guaranteed—Thousands used. Write now
for description and bargain factory price of this wonderful farm engine.
The Edwards Motor Co., 519 Main St., Springfield, O.



\$24.95 ON TRIAL American FULLY GUARANTEED CREAM SEPARATOR

A SOLID PROPOSITION to send
new, well made, easy running,
perfect skimming separator for
\$24.95. Closely skims warm or cold
milk. Makes heavy or light cream.
Different from picture, which
illustrates larger capacity ma-
chines. See our easy plan of

Monthly Payments

Bowl a sanitary marvel, easily
cleaned. Whether dairy is large
or small, write for free catalog
and monthly payment plan.

Western orders filled from
Western points.

AMERICAN SEPARATOR CO.
Box 3961 Bainbridge, N. Y.



PEACH TREES, 20c

Apple Trees 25c each Postpaid. Send for 1923
Bargain Catalog of Fruit Trees, Plants, Vines,
Shrubs. Guaranteed Garden and Flower Seeds.
Special prices to large planters.
ALLEN NU SERY & SEED HOUSE, Geneva, Ohio.

Glass Cloth

a transparent wa-
terproof fabric as
efficient as glass
for hotbeds, poultry houses, etc. Sample 3x9 ft. P.P. \$1.
Cat. Free. TURNER BROS., Desk 22 Bladen, Neb.

GRAPES STRAWBERRIES
BIG. Small Fruits, Garden Seeds, Bulbs and
MONEY Plants. Our catalog tells you how to
CROPS. grow them. It's free. Write today.
RANSOM SEED COMPANY, Geneva, Ohio.

SEED BEANS

FANCY STOCK. Both Red Kidney and White Pea.
Also garden sorts. Buy at once, and insure fancy
seed. A. H. FOSTER CO., Allegan, Mich.

Save Your Barns, fences, posts, rope, etc. More
ly use "Home" brand WOOD
PRESERVER. Prevents rot. Gallon \$1.00.
HOME PRODUCTS INC., Rahway, New Jersey



Saved From Delay at Vital Time by SAVE-THE-HORSE

WHEN delay means hundreds of dollars loss—possibly almost a year's profits—because of lameness, then Save-The-Horse saves you. It cures SPRAIN, Ringbone, Thorpin, or, Shoulder, Knee, Ankle, Hoof and Tendon disease; while horse keeps working. Don't take a chance this year on being delayed at a vital time. Have a bottle of SAVE-THE-HORSE ready for emergencies.

SAVE-THE-HORSE CURES. We give a signed MONEY-BACK Guarantee to cure. Success for 29 years and over 350,000 satisfied users testify to its remarkable achievement. Why run needless risk? It costs you nothing to know all about Save-The-Horse. Write for FREE 96-page BOOK. Tells how to locate, understand and treat every kind of lameness. This serviceable BOOK, sample guarantee and expert veterinary advice,—all FREE. No obligation, write today.

TROY CHEMICAL COMPANY, 323 State Street, Binghamton, N.Y.

At Druggists and Dealers with Signed Contract, or sent prepaid.

A Better Way of Building

Learn how "The Kalamazoo Plan" is revolutionizing building methods. House your cattle, hogs and equipment under conditions that increase production, reduce expense and earn more profits. Learn about our complete building plan service.

Kalamazoo Glazed Tile Buildings and Silos

Tile Buildings are beautiful, economical, practical, everlasting. Save repair and paint bills; warm in winter, cool in summer; decay, storm and vermin-proof; will not burn. Three dead air spaces make perfect insulation. Kalamazoo Tile is made from selected quality clay in our own plant located in the center of the finest tile clay district.



The Kalamazoo Plan

Before you plan any kind of a building or silo, get the Kalamazoo building service—plans and blue prints to fit your requirements. Write for beautifully colored illustration of the Modern Kalamazoo Plan and full information. Address Bldg. Plan Dept. Kalamazoo Tank & Silo Co., Dept. 423 Kalamazoo, Mich.



Soil Tested-free

Find out if you have acid soil. Test it yourself. We send all necessary testing materials FREE—no obligation. Get latest HOLDEN Lime and Phosphate Distributor price today.

The HOLDEN CO., Inc.
DEPT. 205
PEORIA, ILLINOIS

STOVER
SAMSON
WINDMILLS

HYATT ROLLER BEARING EQUIPPED

Proven 28% more efficient in actual tests. Oil but once in 2 years. Eliminates tower climbing. Pumps when others are still heavy. Long lived. 11 sizes. Furnished for any make of tower. Write for catalog.

STOVER MFG. & ENGINE COMPANY
60 State St., Freeport, Ill., U. S. A.

28% MORE EFFICIENT

MINERAL COMPOUND

in use over 50 years

FOR SYMPTOMS OF HEAVES

Booklet Free.

\$3 Pkg. guaranteed to give satisfaction or money back. \$1 Pkg. sufficient for ordinary cases.

MINERAL HEAVE REMEDY CO., 463 Fourth Ave., Pittsburgh, Pa.

Ear Tags

FOR STOCK

Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.

F.S. Burch & Co. 145 W. Huron St. Chicago

FREE BOOK on
CONTAGIOUS ABORTION

Describes cause, effects and treatment; tells how farmers in all parts of U. S. are stopping the ravages of this costly malady.

Write for free copy today.

ABORNO LABORATORY
44 Jeff Street, Lancaster, Wis.

HEAVES

Is your own horse afflicted? Use 2 large cans. Cost \$2.50.

Money back if not satisfactory

ONE can at \$1.25 often sufficient. In powder form. Most for cost

NEWTON'S

A veterinary's compound for Horses, Cattle and Hogs. Heaves, Coughs, Distemper, Indigestion, Worm expeller, Conditioner. At dealers or by parcel post.

THE NEWTON REMEDY CO., Toledo, Ohio

For CUTS And WOUNDS

on man or beast, you will find Corona Wool Fat soothes the pain almost instantly and heals very quickly, often without leaving a scar. Can't be beat for Sore Shoulders Collar Boils Caked Udders Scratches Cracked Hoofs Rope Burns Barb Wire Cuts Sore Teats Sore of Any Kind, Etc.

CORONA WOOL FAT COMPOUND

is one of the best remedies you can use. Made from the fatty secretions extracted from the wool and skin of sheep. Will not smart nor blister. "A friend in need" both in the home and barn—a REAL first aid. Sold by Druggists, Blacksmiths and Harness Dealers. If you can't supply write us.

Sample Box FREE

It won't cost you a cent for place you under any obligations—just send me your name and address. It's worth its weight in gold to any farmer or dairymen. Write.

G. O. PHILLIPS, Pres.
THE CORONA MFG. CO.
14 Corona Block, Kenton, O.

1923 BARGAIN CATALOG FREE

GALLOWAY'S

1923 Book—Buyers Guide and Catalog—is the low price merchandising sensation of the season—Modern, dependable, high-class goods for farm and home. Bargains the like of which have not been offered for years. Prices cut to bedrock.

Write today for catalog—it's free. And before you buy anything from anyone—anywhere—compare my prices—see how much you save—get acquainted with my Factory-to-Farm, one-small-profit plan of doing business and you'll be a Galloway customer for life. Cream Separators, Engines, Manure Spreaders, Hoofing, Fencing, Implements, Incubators, Poultry and Dairy Supplies, etc.

W. G. GALLOWAY CO.
Dept. 187 Waterloo, Iowa

DON'T CUT OUT A Shoe Boil, Capped Hock or Bursitis

FOR ABSORBINE

will reduce them and leave no blemishes. Stops lameness promptly. Does not blister or remove the hair, and horse can be worked. \$2.50 a bottle delivered. Book 6 R free.

ABSORBINE, JR., for mankind, the antiseptic Uniment for Boils, Bruises, Sores, Swellings, Varicose Veins. Alleviates Pain and Inflammation. Price \$1.25 a bottle at drug stores or delivered. Will tell you more if you write.

W. F. YOUNG, INC., 268 Temple St., Springfield, Mass.

TRY a Michigan Farmer Liner, they bring results.

Our Stock Breeders' Page

By P. P. Pope, Field Editor

SHORTHORN ASSOCIATION SALE.

THE Shorthorn show and sale is well established as an annual event in Michigan Shorthorn circles. It was pulled off in the usual good time and way in the judging arena at the Michigan Agricultural College on February 2. The cattle were a useful lot and went into new homes at very conservative prices.

It is usually the case at these sales that the cows and heifers sell more readily than the bulls, consequently the consignment of bulls is limited. This year the opposite was true and several prospective bull buyers went home bullless.

The breeders were favored this year by having among them the executive head of the America Shorthorn Breeders' Association, F. W. Harding, whose good work at the ringside, and as judge of the cattle show, was greatly appreciated. Much credit is also due the state association secretary, Professor Edwards, for his faithful efforts as sale manager, as well as the auctioneers, the sale committee, and the out-of-state visitors.

The beautiful white two-year-old heifer shown by John Lassiter's Sons had little difficulty in working her way to the championship of the show, or to the top of the sale. She went to W. C. Thatcher, of Flint, at \$310. Robert Booth, of Owosso also, landed a good red cow at \$245, consigned by L. P. Otto. The forty-two head catalogued sold for a total of \$5,500, an average of \$131 per head. Those selling for \$100 and over are listed below.

List of Sales.

Eula—by John Lessiter's Sons, of Clarkston, to A. & F. Parmenter, of Durand, \$230.

Thelma—John Lessiter's Sons to F. J. Nickson, Britton, \$150.

May Amaranth—John Lessiter's Sons to W. C. Thatcher, Flint, \$310.

Fairfield Rosemary 2d—H. B. Peters & Son, Carland, to Clyde Fox, \$175.

Fairfield Madeline 5th—H. B. Peters & Son, to R. Huckins, Corunna, \$150.

Mable—H. B. Peters & Son, to C. J. Porter, Williamston, \$110.

Lakeside Pearl—McLachlan Bros., Evart, to Fred Hampton, Leslie, \$115.

Fair Beauty—McLachlan Bros. to P. P. Pope, Mt. Pleasant, \$100.

Crystal Queen—McLachlan Bros., to Harvey Wiseloge, Albion, \$100.

Emmeline 22nd—L. P. Otto, Charlotte, to Robert Booth, Owosso, \$245.

Camden Duchess 2d—L. C. Kelly & Son, Plymouth, to J. E. Stiner & Son, Eaton Rapids, \$130.

Ridge Road Beauty—L. C. Kelly & Son, to Nelson Space, Grand Ledge, \$115.

College Sharon 6th—M. A. C., to Fred Hampton, Leslie, \$130.

College Missie 10th—M. A. C. to J. W. McShane, Bay City, \$165.

College Melody 2d—M. A. C. to Fred Hampton, \$100.

Princess Pat—S. E. Booth, to Russell Jordan, Eaton Rapids, \$110.

Flora 4th—F. S. Postal Est., Evart, to Xavier Barnhart, St. Johns, \$115.

Sharon Lady—Fred Hampton, to J. C. Nickson, Brooklyn, \$130.

Snowflake—Bedell & Wheatlake, to Big Rapids, to Nelson Space, \$130.

Model Blossom—Bedell & Wheatlake, to Harvey Wiseloge, Albion, \$105.

Scottish Maid 4th—P. P. Pope, Mt. Pleasant, to R. Huckins, \$185.

Mayflower 2nd—P. P. Pope, to Xavier Barnhart, \$125.

Snowball—Bedell & Wheatlake, to Archie Henderson, Lake Odessa, \$125.

Nora E.—Oscar Wilson, Mason, to Charles Mesler, Albion, \$150.

Bulls.

Fairfield Reserve—H. B. Peters & Son, to Frank Sonley, St. Louis, \$135.

Dale Leader—John Lessiter's Sons, to T. J. Rixon, Britton, \$210.

Craiglea—John Lessiter's Sons, to H. F. Mouser, Ithaca, \$205.

Victor Torchbearer—McLachlan Bros., to W. A. Geisenhafer, Dimondale, \$200.

Armada Sultan—L. C. Kelly & Son, to O. B. Shetterly, Lake Odessa, \$145.

Roan Jupiter 2d—W. E. Cummings, to S. Ball & Son, Charlotte, \$125.

Roan Jupiter 3rd—W. E. Cummings, to E. W. Erwin, Saginaw, \$120.

FAIR VIEW POLANDS OVER THE TOP.

THE Poland China spring sales start off with a bang. Doris Hover, of Akron, pulls off a good one February 1. The gang was all there, 200 and more, and they came from many points in the state. It was an attractive lot of hogs that Mr. Hover put through the ring, well-grown, well-conditioned, and well-bred, the kind to demonstrate the superiority of pure-breds for pork production.

The auctioneers, Colonels Waffle and Huffman, did a creditable job of selling the offering, and with a good crowd and good hogs made the highest average secured at any hog sale in Michigan in a long time. There were no extreme prices, the entire offering selling between \$40 and \$85. The thirty-three bred gilts averaged \$61. One fall boar sold for \$52, and a litter of six fall pigs consigned by a neighbor brought \$212. The list follows:

1. John Hickey, Fairgrove.....\$77.00
2. Walter McCaughey Crosswell 85.00
3. A. Tompkins, Fairgrove 68.00
4. Albert Peters, Akron 69.00
5. John Uhl, Unionville 67.00
6. Wm. Carpenter, Caro 66.00
7. Wm. Turner, Akron 76.00
8. I. Heckroth, Unionville..... 45.00
9. M. McCallum, Unionville.... 70.00
10. Fred Bell, Akron 52.00
11. Fred Bell 55.00
12. Ward Parsell, Caro 65.00
13. Arthur Tompkins 66.00
14. H. Kramer, Unionville..... 70.00
15. John Uhl 50.00



Herd Sires Like This "Take the Joy Out of Life" for Scrubs.

17. Henry Rohlf, Akron	50.00
18. Wm. Turner	56.00
19. Frank McCreedy	60.00
20. Earl Childs	45.00
21. W. Dunston, Clarkston	65.00
22. Ward Dunston	52.50
23. Norris Miller, Fairgrove	66.00
24. Murray McCallum	70.00
25. Elmer Uhl	62.00
26. Geo. McClaren, Akron	62.00
28. G. W. Montie, Caro	55.00
30. Morley Bush, Unionville	56.00
31. Wm. Bell, Fairgrove	69.00
32. Norris Miller	52.00
34. Henry Rohlf	60.00
35. Wm. Carpenter Caro	48.00
36. Cecil McPherson, Akron	60.00
43. Wm. Childs	40.00
45. Wm. Colling, Colling	60.00

NO FARM CURE-ALL.

(Continued from page 218).

as much, and perhaps more, to sell a product of poor quality than one of good quality.

"The closer the farmer can relate his production to the nearest market, the less he will find it necessary to go into the international market, and the less the cost of getting his product to market, the greater will be his net return.

"Farmers do not produce sufficiently for quality. It costs just as much to sell poor potatoes as good ones, and you're decreasing rather than encouraging consumption. I haven't had a decent potato since I went to Washington twelve years ago, and I don't think I've had the same variety twice.

"But we can't carry out this program if every farmer does just as he pleases. For this program we must have leadership, organization and cooperation. Everybody must surrender his individual judgment and part of his control for the common good. Most of us, when we think of cooperation, want the other fellow to cooperate with us. The greatest obstacle to the farmer is the farmer himself."

Mr. Anderson declared that he came out to Michigan from Washington chiefly because he desired to lend some inspiration to the "first sound agricultural program proposed in any state," and said, "I pay my tribute of respect and admiration to the man who had courage and intelligence enough to get the facts and to present the facts which inevitably follow, without fear or favor."

The program Thursday afternoon was devoted chiefly to the agricultural situation in Europe. Signora Agresti described the work of the International Institute of Agriculture, which is concerned primarily with the dissemination of information upon agricultural topics, but which aims also to promote peace and good feeling throughout the world. Louis G. Michael, foreign agricultural economist with the United States Department of Agriculture, gave many interesting details concerning the changes wrought in Europe by the war. Because of the breaking up of the large estates, European agriculture has become diversified, with the result that not only wheat, but other cereals and live stock now find their way onto the international market.

Tuesday, "live stock day," was featured with an address by Dr. W. J. Kiernen, of the Bureau of Animal Industry, Washington, who emphasized the importance of the campaign for the eradication of bovine tuberculosis. Charles Snyder, editor of the Chicago Daily Drivers' Journal, discussed "Some Economic Phases of the Live Stock Industry," early in the afternoon.

At the last general session, held on Friday morning, February 2, Dr. Eugene Davenport, in his second address of the week, urged his hearers to support President Friday's request for appropriations from the legislature. Dr. Charles F. Kent, of Yale, and James Schermerhorn, of Detroit, were the other speakers of the morning.

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results under classified headings. Try it for want ads and for advertising miscellaneous articles for sale or exchange. Poultry advertising will be run in this department at classified rates, or in display columns at commercial rates. Rates 8 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 6 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order. Real estate and live stock advertising have separate departments and are not accepted as classified. Minimum charge, 10 words.

Rates in Effect October 7, 1922

Words	One time	Four times	Words	One time	Four times
10	\$0.80	\$2.40	26	\$2.08	\$6.24
11	.88	2.64	27	2.16	6.48
12	.96	2.88	28	2.24	6.72
13	1.04	3.12	29	2.32	6.96
14	1.12	3.36	30	2.40	7.20
15	1.20	3.60	31	2.48	7.44
16	1.28	3.84	32	2.56	7.68
17	1.36	4.08	33	2.64	7.92
18	1.44	4.32	34	2.72	8.16
19	1.52	4.56	35	2.80	8.40
20	1.60	4.80	36	2.88	8.64
21	1.68	5.04	37	2.96	8.88
22	1.76	5.28	38	3.04	9.12
23	1.84	5.52	39	3.12	9.36
24	1.92	5.76	40	3.20	9.60
25	2.00	6.00	41	3.28	9.84

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.

MISCELLANEOUS

BOYS, GIRLS—15 big packages cucumber seed postpaid \$1.00; value, \$1.50. Recommend them to your friends. Very heavy bearer, excellent pickling, tender slicing, Michigan grown. Absolutely 1922 crop. This means dependable quick germination—the seed your neighbors want. Guarantee: money refunded for seed returned within 14 days. Order now, pay when received. Sweet Home Seed Farm, Pentwater, Mich.

SAVE 35% of money you now spend for gasoline by using a Sturtevant Aerator. It eliminates carbon, makes engine run smoother with less vibration. Highly recommended by thousands of satisfied customers. Fits any engine. Easily installed. Price \$3.50 postpaid. Agents wanted. Earl Clayson, 1407 Lafayette Blvd. W., Detroit.

STRAWBERRIES—Progressive Everbearing, bear all summer. Good healthy plants. Never a failure. We have same customers order 3 years. 75c per hundred prepaid. Frank Rich, Allegan, Mich., State Road.

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WANTED—Man and wife; woman to assist in owner's residence, man to be good milker and have knowledge of gardening. Wages for both \$85.00 and board per month. All modern conveniences. Bazley Stock Farm, Ypsilanti, Mich.

WE PAY \$200 monthly salary and furnish rig and expenses to introduce our guaranteed poultry and stock powders. Bigler Company, X 683, Springfield, Illinois.

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A THOROUGHLY up-to-date, college trained, life experienced married man (no family) desires position as dairy farm manager. Has been in charge of St. Austell Farms for more than three years. Unquestionable references. D. A. Greene, St. Austell Farms, Jackson, Mich.

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WORLD'S GREATEST EGG PRODUCERS

From grand selected flocks on free range, built direct from laying contest winners. Strong, vigorous chicks that will prove great layers. Flock culled by poultry experts and headed with vigorous pedigreed males from the best laying strain in the country, postpaid. Full live delivery guaranteed. Fine instructive catalog free. Reference two banks. Silver Ward Hatchery, Box 30, Zeeland, Mich.

BABY CHICKS

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Order from this ad, or write for literature. PETERSBURG HATCHERY, Petersburg, Michigan

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Your correspondence and inspection are invited.

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W. E. SCRIPPS, Prop. SIDNEY SMITH, Supt.

Registered Aberdeen-Angus 10 heifers, 6 bulls from eight to fourteen months. Best of breeding. The growthy kind that make good. Reasonable. Inquire of F. J. Wilber, Ohio, Mich.

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2 Choice Heifers about a yr. old for \$300. Bull old enough for light service, out of Ester Erwin who is making a fine record \$150. J. M. Williams, No. Adams, Mich.

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We have what you want in BULL CALVES, the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dam's records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

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Holstein Friesian bulls all ages from A. R. O. dams with records up to 30 lbs. from one of best average record herds in state. Prices reasonable. **I. A. Kidney**, Brant, Mich.

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5 yearling bulls 8 yearling heifers
10 of the above sired by our \$5200 Repeater bull. We have others not related. This is an opportunity to start in good stock at a moderate price.

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Polled Hereford bulls for profit—only one left—a good one. Ask for price and description. **Lloyd F. Wilson**, Angola, Ind.

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in calf and calf by side. Also a few young bulls. Herd headed by Victor Sultan and Royal Nonpareil. We can please you in richly bred cattle with quality at farmers' prices.

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Shorthorns Bidwell Revolution Jr. heads herd—Sire, Revolution, Dam, Maxwellton Rosewood 3d, 2d Dam, Imp. Rosewood 86th. Now offering one good roan two year old bull out of a Marr Marigold dam, also a few cows and heifers safe in calf. Prompt attention to correspondence—visitors welcome. State Accredited herd. One hr. from Toledo, O. N.Y.C. Ry. **BIDWELL STOCK FARM**, Tecumseh, Mich., Box D

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HOGS

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sows and gilts. This is one of the highest class offerings in Michigan spring gilts in moderate flesh, weigh 360 to 375 lbs. These are bred to Forcaster Jr. (the best Pathfinder bred boar in the State). He took 2nd at Illinois State Fair as jr. ylg. in 1921 and 8th at State Fair as sr. ylg. at State Fair and Grand Champion at Grand Rapids. Write for private sale folder. **MICHIGANA FARM**, Pavilion, Mich.

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SPRING GILTS BRED FOR MARCH AND APRIL LITTERS
ALSO A FEW GOOD BOARS
Herd sires: Panama Special 5th, Big Bone Giant Sensation, Brookwater Principal Col. and Brookwater Orion Sensation. All are exceptional individuals and have proven their ability to sire good ones.
BROOKWATER FARM, Ann Arbor, Michigan
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Duroc - Jerseys

We can spare a limited number of big, roomy, growthy bred gilts due to farrow in April, priced very reasonable. Can also spare a few fall pigs either sex. Write for prices.

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"The Home of Grand Champions"

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February 27, 1923

FOR CATALOG ADDRESS

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Whitney Farms Durocs

We offer an excellent line of bred sows and gilts as well as two boars that are real sires. Priced to sell. Write for pedigrees.
WHITNEY FARMS, Whitney, Mich.

Woodlawn Farm Duroc Hogs meet present day requirements, length, size and quality. Young stock for sale at reasonable prices and fully guaranteed. Write your wants. **W. E. BARTLEY**, Alma, Mich.

Duroc Fall Yearling

and spring boars. Some real herd prospects sired by O. C. K. Col. 2nd, All Col. of Sangamo and Diamond Joe. Priced to sell. Fall pigs either sex. Write for description and prices. **W. C. TAYLOR**, Milan, Mich.

Duroc—Jerseys A few Pathfinder Gilts bred to a good son of Foust's Top Col., E. D. Heydenberk, Wayland, Mich.

DUROC-JERSEYS Bred Gilts for sale. **CAREY U. EDMONDS**, Hastings, Mich.

Duroc fall boars sired by Master Col. Walt. Bred sows and gilts. Cholera immune. **JESSE BLISS & SON**, Henderson, Mich.

Is It Worth While?

A real boar pig sired by Woodford Sensation, Dams of Defender or Pathfinder breeding.

If so, We have them of Sept. farrow, not only showing extreme quality, but greater size than you will expect to find. Follow M 29 to

Kope-Kon Farms, Coldwater, Mich.

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Boars all sold. Bred sow sale March 8th. **FRED L. BODIMER**, Reese, Mich.

Chester Whites. Choice spring gilts bred to Giant, 2nd prize boar at State Fair. Also fall gilts. **LUCIAN HILL**, Tekonsha, Mich.

CHESTER WHITES Bred sows and gilts, summer boars and fall gilts C.O.D. **ALBERT DORR**, Clinton, Mich.

O. I. C. HOG SALE

Feb. 27, 1923, 1:00 P. M.

55 GILTS

Bred for Mar. & Apr. farrow

EMERY H. JEWETT

Mason, Mich.

O. I. C's and Chester Whites

Gilts sired by Mich. State Fair Gr. Champion 1921, and bred for March and April farrow to Mich. State Fair Jr. Champion 1922; the common sense type and price.

ANDY ADAMS, Litchfield, Mich.

O. I. C. 20 large growthy gilts farrow in Mar. also fall boar pigs. **CLOVER LEAF STOCK FARM**, Monroe, Mich.

O. I. C's 20 last spring gilts bred to farrow in Mar. and April, big growthy stock, recorded free. 1/2 mile west of Depot, city's phone. **OTTO B. SCHULZE**, Nashville, Mich.

O. I. C. GILTS bred for March and April farrow. **H. W. MANN**, Dausville, Mich.

O. I. C. Bred gilts and boars all sold. Am taking orders for fall and spring pigs. **A. J. BARKER & SON**, Belmont, Mich.

Winter Care of Brood Sows

By E. W. Gage

PRACTICAL hog raisers recognize that the brood sow's care is more difficult in winter than summer. Exercise is more difficult, and this is needed in order to keep the breeder in good condition, which prevents the laying on of an excess of flabby fat. The excessively fat sow is more liable to drop her pigs small, puny and weak.

During the period of gestation let the sow have the run of the barnyard, where she can root in the manure pile or around the straw stack, for scattered grain. The sow will do very well under such conditions if provided with comfortable sleeping quarters free from draughts, dry and plenty of bedding. However, should these conditions be impossible, if a portable pen can be placed in a field with the front of the pen facing the south, and plenty of dry bedding provided, the house well banked on the outside, the construction being such as to prevent draughts, it will be found that the sow will be very comfortable.

The feed trough should be placed thirty or forty yards from the pen to force the sow to come out for food, and in walking backwards and forwards she will get the necessary exercise. Remember that an active, healthy mother produces strong, healthy offsprings.

In feeding the brood sow the aim should be to keep her well nourished, never under or over-fed, but with sufficient feed to supply all requirements in building bone and good firm flesh. During cold weather an excess of liquids should be avoided because of the extra effort on the part of the animal to heat up this liquid. The meal should be allowed to soak for a considerable time, to become moistened throughout, using slop or dairy by-products.

Such meals as shorts or middlings and ground oats are to be preferred but the use of some of the heavier meals is permissible, such as corn, barley, or pea meal, but the latter should be fed sparingly and in a mixture with the first mentioned meals. Mangels or beets should be available for feeding in connection with the meal ration, these should be given at the mid-day feeding, and should be fed whole. The grain ration is fed morning and evening. Roots add succulence to the diet, keeping the digestive organs cool and in good order. By feeding roots, the amount of liquid required by the sow will be greatly lessened.

If the sow is confined to a pen where the floor is cement or wood, a few sods should be kept on hand to supply mineral matter; these can be thrown into the pen as required. Sulphur, salt and charcoal kept in a separate box will prove beneficial as a regulator and appetizer.

For sows under such conditions, care should be taken to avoid the laying on of excess fat, and where a ration comprised entirely of meal is fed, without care, the sow is liable to derangement of the digestive organs, which sometimes results in the development of an abnormal appetite at farrowing, and is a cause of the sow devouring her young.

Feeders are taking out more thin steers than usual at this season. Purchases for summer grazing also are being made. At prevailing discounts some of the low grades of light steers, if thrifty, look attractive, provided that the feeder can crowd them for the market in May and early June when plain light killing steers are abnormally scarce.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

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

Miscarriage.—I have a two-year-old heifer that lost her calf five months before time. She had a fall. She is giving three quarts of milk at a milking. Is her milk fit to use? C. V. G., Harbor Beach, Mich.—If she has no vaginal discharge breed her right away. Her milk is fit for use, but will she prove profitable for dairy use? It is doubtful.

Skin Irritation.—Our two-year-old heifer has bald patch around the eye, another sore spot between fetlock and knee. We believe it is caused by running through cornstalk roughage. We also have another cow showing same symptoms. Last year our cattle got well soon after they were turned out to pasture. E. A. W., Lansing, Mich.—Apply one part oxide of zinc and five parts vaseline to sore parts once a day. Keep the cattle out of the lot where the corn fodder stands.

Cattle Lice.—I have eight head of cattle that are covered with small brown lice, and would like to know what will kill the lice. W. E. R., Dryden, Mich.—If the lice are the biting variety, mix one-half ounce of sodium fluorid in one gallon of water and cautiously spray small quantity on cattle. Don't apply it near eyes, nose or anus for if you do it will cause considerable irritation. Dr. Hall recommends a powder composed of one part sodium fluorid to five parts of wheat flour. Use a blow gun or sifter, but don't use too much. One application might be sufficient. One part coal tar disinfectant and thirty parts water will kill the blood-sucking louse. Clean and whitewash your cow stable, use fresh lime-wash.

Tuberculosis.—Am anxious to know if my rabbits are fit for food. Their liver is covered with white spots. C. B. L., Vanderbilt, Mich.—Although not by any means immune from infections by the bacillus tuberculosis, the disease is not very common in the rabbit; however, I believe your rabbits are infected. Of course, if the liver is the only organ of the body which is diseased the remainder can be used for food with safety.

Itchy Cattle.—My cattle must be itchy for they have rubbed themselves so much they have some raw spots on body. I have looked for lice and found none. C. M. F., Remus, Mich.—First of all, your cattle may have itchy skin as the result of filth, lack of grooming may have caused it. If you will apply one part coal-tar and thirty parts water it will help them. Dusting on flowers of sulphur might help them. One part kerosene and five parts vaseline is another remedy.

Contagious Mammitis.—Have had several cows that have lost the use of one quarter and sometimes half of bag. When the cow freshens the quarter fails to give any milk, in some cases a little milk can be obtained the first year, the next year she freshens, can get no milk at all, and that quarter is shrunken. Would like to know if it is a contagious disease, or if anything can be done to prevent it. N. C., Oxford, Mich.—Mammitis, Contagious Streptococcus is what ails your cows. I know of no better plan than to segregate diseased cows and provide separate milkers for them. Cleanliness of the udder and compelling the milkers to wash their hands after each cow is milked will prevent spread of the disease. Treat mild cases with warm water injection of three per cent boric acid solution. In more severe cases I always use a one per cent sodium fluoride solution and invariably obtain fairly good results from this kind of treatment.

Acid Urine.—I am milking eleven cows, feeding two feeds of alfalfa, one of mixed hay per day. I have also fed them ground oats, peas, and potatoes night and morning. About a week ago most of the cows were switching their tails, and seemed to suffer pain while passing water, besides they urinated too often, passing only a small quantity at a time. I thought they swelled some behind. A. G. M., Cathro, Mich.—Discontinue feeding potatoes and give them plenty of baking soda in their feed and they will soon be well. Commence by giving each cow two tablespoons at a dose two or three times a day.

N. F. BORNOR'S

Second Annual Sale of
LARGE TYPE POLAND CHINAS
Wednesday, February 21, 1923
45 HEAD BRED SOWS, Cholera Immune

This offering is sired by The Wolverine, M and W's Orange, B's Clansman, Alaska, Black Buster and Daddy Long Legs 2d. Sale to be held in Livery Barn at Parma, Michigan. These Sows sell bred to M and W's Orange, Black Buster and Daddy Long Legs 2d.

Auctioneers: ADAMS & HAYNES
Fieldman: P. P. POPE, Michigan Farmer

Nine months time will be given where Banker O.K's. you. Write for Catalog.

BRED SOW SALE

43 HEAD LARGE TYPE POLAND CHINAS
CHOLERA IMMUNE

Thursday, February 22, 1923

At Farm 3½ miles west and 1½ miles north of
Manchester, Mich.

Bred to Foxy Clansman, Grand Champion 1922 at Mich. State Fair
F's Clansman Grand Champion in 1920.
F's Big Orange Reconstruction Giant Again
Bob Clansman and Buster.

WRITE FOR CATALOGUE

AUCTIONEERS: Andy Adams, F. D. Merithew and F. E. Haynes
A. A. FELDKAMP, Manchester, Mich.

Michigan Farmer Representative, P. P. Pope

DISPERSAL SALE

60 REGISTERED HOLSTEIN-FREISIAN CATTLE 60
FULLY ACCREDITED HERD

At Ithaca, Mich. Tuesday, February 27th, 1923

50 HEAD FEMALES 50

Bred to and from such sires as King Houwtje Pledge, King Houwtje Korndyke DeKol Woodcrest Hengerveld, King Korndyke Sada Vale 25th, Forest City Pontiac Ormsby King, and Charlevoix Ormsby Netherland.

Sale held under cover at Farm 1 mile west of Ithaca on Colgrove Highway. 60 day retest privileges if desired. 10 months time will be given on approved notes at 7% int. Ask for (World) Catalog Feb. 20th.

MUSCOTT & GRAHAM, Proprietors

Auctioneers: J. D. HELMAN & SON, Sale Manager: S. T. WOOD
Ithaca, Mich. Liverpool, N. Y.

AUCTION SALE

Registered Holstein Friesian Cattle,

ALL CATTLE IN SALE

T B TESTED IN 1923

FRIDAY, FEBRUARY 23rd, AT ONE O'CLOCK

One Mile Southwest of Tekonsha, Mich. On Bus Line from Jackson, Marshall and Coldwater. We are closing out entire herd of pure bred registered Holstein Friesian cattle. This herd consists of 12 cows in milk; balance of herd yearlings heifers, heifer calves, and young bulls. Included in this sale are 3 daughters of Maryland Alexis Segis No. 238412 whose dam has a record of 29.2 lbs. of butter and 402 lbs. of milk in 7 days as a Junior 2 years old, whose sire dam has a record of 38.1 lbs. butter and 578.7 lbs. milk in 7 days as a Junior 3 years old. There are also daughters of King Pietje Alcartra, Crown Pontiac Korndyke, Sir Colantha Segis Korndyke, and other good sires.

E. O. PHELPS, Proprietor

Tekonsha, Michigan

SPOHN'S DISTEMPER COMPOUND



Will relieve Coughs and Colds among

horses and mules with most satisfactory results. For 30 years "Spohn's" has been the standard remedy for Distemper, Influenza, Pink Eye, Catarrhal Fever, Heaves and Worms. Excellent for Distemper and Worms among dogs. Sold in two sizes at all drug stores.

SPOHN MEDICAL CO. GOSHEN, IND. U.S.A.

AUCTION

The undersigned will sell on the premises 3-4 mile north of Corunna

Wed. March 7

Commencing at 10:30 o'clock. Lunch at Noon. Free Auto will meet Trains and Interurban Cars. Twelve registered Shorthorn females, mostly with calf by side.

One Bull, 18 months old. Also Fifty fine wool breeding ewes, 1 to 5 yrs. old. A few tools.

This is a rare chance to get into the good Shorthorn herd. All are tuberculin tested. TERMS—Nine months time on good approved bankable notes at 7 per cent interest.

C. M. BILHIMER, Proprietor
ANDY ADAMS, Litchfield, and
NORM MORRISH, Flushing, Auctioneers.

LARGE TYPE P. C.

As good as they grow. Fall pigs either sex. Bred sows for sale by the Wolverine, M. & W's Orange, B's Clansman, Alaska and Black Buster, Cholera Immune. Sale February 21st. N. F. BORNOR, Parma, Mich.

L. T. P. C.

Choice Gilts \$25 to \$40. Boars \$30. Fall Pigs \$15. HART AND CLINE. Address F. T. HART, St. Louis, Mich.

Large Type P. C. Largest in Mich.

A few fall pigs for sale. Sired by "The Wolverine" a grandson of "The Rainbow and Big Bob" the greatest yearling boar I ever owned has size combined with quality. Come and see the real kind. W. E. LIVINGSTON, Parma, Mich.

Francisco Farm Poland Chinas

Spring gilts sired by a grandson of National Grand Champion Sow and bred to a grandson of National Grand Champion Boar. Now ready to ship. P. P. POPE, Mt. Pleasant, Mich.

Boars at Half Price

From Mich. Pioneer herd of Big Type Poland Chinas. We have been breeding them big for 30 years. Our hogs represent the blood lines of Giant Buster, The Clansman, Liberator, The Yankee, Big Bob, etc. Write for what you want. JNO. C. BUTLER, Portland, Mich.

Big Type P. C. some very choice boars double in Bmune, out 100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

BIG TYPE POLANDS

spring boars all sold. fall pigs either sex at farmers' prices. Tuscola Clansman is our young herd sire, first prize pig at Mich. State Fair. Litter from him will improve your herd. Public sale Feb. 1. Write today for catalog. DORIS HOVER, Akron, Mich.

L. T. P. C. Gilts bred or open, two good boars

left. They have always made good, and will again. Write for my plan of selling. M. M. PATRICK, Gd. Ledge, Mich.

Walnut Alley Big Type P. C. gilts now ready to ship they are bred to the best boar I have seen this fall. A. D. GREGORY, R. 3, Ionia, Mich.

L. T. Poland Chinas

spring boars and bred sows at reasonable prices, also fall pigs either sex of popular blood lines. Aberdeen-Angus bulls. Heifers and Cows that are show winners. Write or come. E. A. CLARK, R. 3, St. Louis, Mich.

Profitable, Practical Poland Chinas, bred gilts—

Yankee Blood-lines Discher's Giant, Big Bob, JAS G. TAYLOR, Belding, Mich.

Big Type Poland Chinas

G. A. BAUMGARDNER, R. 2, Middleville, Mich.

Choice Poland China fall boar pigs For Sale—by Emancipator 2nd, dam by Checkers also can spare a few bred sows and gilts from herd. WESLEY HILE, Ionia, Mich.

Large Type Poland Chinas

Poland China Gilts sired by Mich. Liberator, & Big Checkers. Bred to model Giant and Mich. Liberator 2d. for March & April farrow. George F. Aldrich, R. 6 Ionia, Mich.

Lone Maple Farm

Big Type Poland Chinas. Nothing for sale at present. F. R. DAVIS & SON, Belding, Mich.

Large Strain P. C.

a few choice gilts left. Bred for April farrow. You can't beat the breed ing nor price. H. O. SWARTZ, Schoolcraft, Mich.



11 Owners in 1903—55,000 Today

Why this enormous increase? They top the market. Packers choice—Five Straight years grand champion car load of fat hogs at Chicago Fat Stock Show. Famous Foragers—greatest gain on cheapest feed. Write to Michigan's Leading Hampshire Breeders.

Donald O. Beale	Cassopolis
James G. Arthur	Jonesville
Lloyd Aseltine	Grass Lake
John W. Snyder	Okemos
Clarence L. Campbell	St. Johns
John L. Landon	Parma
S. H. Van Menter and Sons	Addison
D. I. McBean	Parma
	Manitou Beach

Hampshires spring boars and bred gilts from order now or you may be too late. 10th year. JOHN W. SNYDER, R. 4, St. Johns, Mich.

Hampshire

Bred gilts \$20, \$25; bred sows \$30, \$50. Guarantee safe delivery, registered free. C. F. LUCKHARD, Belding, Mich.

Registered Hampshires

Bred sows and gilts, fall pigs, best blood lines. Inspection invited. Clarence L. Campbell, Parma, Mich.

SHEEP

800 BRED EWES FOR SALE

in lots of 50 or more, black faced, from 1 to 4 yrs old; no broken mouths, in good condition, bred to Shropshire and Oxford rams to lamb May first. Located 22 miles S.W. of Detroit on Detroit and Toledo electric and Dixie Highway. Telegraph address, Rockwood. Almond B. Chapman, So. Rockwood, Mich.

Large, We'll Covered, registered Shrop-

shire ewes bred to rams of merit in lots to suit. Flock established 1890. C. LEIEN & SONS, Dexter, Mich.

Reg. Delaine ewes and ewe lambs

for sale. CALHOON BROS., Bronson, Mich.

FOR SALE

35 Head of Registered Hampshire Ewes. Must be sold before March 1st. Your opportunity. HULL BROS., 401 American State Savings Bank, Lansing, Mich.

HORSES

FOR SALE

Black Percheron Stallion, Lodi Jr., Reg. No. 142332. Foaled June 10, 1917. Wt. 2200. Extra good one. Sire and dam imported. Wm. Bird, St. Johns, Mich.

For Sale First Class Percheron Stallions

also a car of Grade Draft colts; Chas Bray, Okemos, Mich.

HOGS

Chester Whites

We are offering some choice fall pigs, also bred sows and gilts. Prices reasonable. Weber Bros. 10 Mile and Ridge Rds, Royal Oak, Mich.

O. I. C's.

Bred Sows all sold. Some young sows for Fall breeding. All sold on approval, reg. Free. One Extra Good 11 month old Boar. Fred W. Kennedy, Plymouth, Mich.

O. I. C's

March boars, bred gilts, July and Aug. gilts. Young Brown Swiss Bulls, Milo H. Peterson, Elmhurst Farm, R-2 Ionia, Mich.

O. I. C's.

Am offering a few fall boars and 3 gilts bred for May farrow. O. J. THOMPSON, Rockford, Mich.

Large Type Poland China BRED SOW SALE

FEBRUARY 22, 1923

Write for Catalogue

A. A. FELDKAMP, Manchester, Mich.

Leonard's Big Type P. C. gilts sired by Leonard's

Liberator and Orange Clansman and fall Pigs at bargain Prices. E. R. LEONARD, St. Louis, Mich.

Saginaw Valley Herd of O. I. C. & Chester White Swine

C. C. Mich. Boy and Selection 1st, bred to Jumbo's Giant 1st, son of Grand Champion Boar at Mich. State Fair. Photos on request. John Gibson, Fosters, Mich. R. 2.

TRY a Michigan Farmer Classified Liner—They cost

little and bring big results.

When Writing to Advertisers Please Mention
The Michigan Farmer

LATEST MARKET REPORTS

GRAIN QUOTATIONS

Tuesday, February 13.

Wheat.

Detroit.—No. 2 red \$1.41; No. 2 mixed \$1.39; No. 2 white \$1.41.
Chicago.—No. 2 hard \$1.25@1.25½;
May \$1.23½.

Toledo.—Cash \$1.41@1.42.

Corn.

Detroit.—Cash No. 2, 81½c; No. 3 yellow 80c.

Chicago.—No. 2 mixed 74½@74¾c;
No. 2 yellow 74½@75¾c.

Oats.

Detroit.—Cash No. 2 white at 51c;
No. 3, 49½c.

Chicago.—No. 2 white at 46@48c;
No. 3 white 44½@45½c.

Beans.

Detroit.—Immediate and prompt shipment \$7.75.

Chicago.—Choice hand-picked Michigan beans \$8.40@8.50; red kidneys at \$9.00.

New York.—Choice pea \$8.35@8.50;
red kidneys \$8.25@8.50.

Rye.

Detroit.—Cash No. 2, 91c.

Chicago.—88¢@89c.

Toledo.—Cash 91c.

Seeds.

Detroit.—Prime red clover cash at \$13.40; April \$12.40; alsike at \$10.40; timothy \$3.30.

Toledo.—Prime red clover cash at \$13.65; alsike at \$10.50; timothy cash, new \$3.35; old \$3.40.

Hay.

Detroit.—No. 1 timothy \$16@16.50; standard \$15.50@16; light mixed at \$15.50@16; No. 2 timothy at \$14@15; No. 1 clover \$13@14; rye straw \$11.50@12; wheat and oat straw \$11@11.50 per ton in carlots.

Feeds.

Bran \$35.50; standard middlings at \$35.50; fine do \$36@37; cracked corn \$36.50; coarse cornmeal \$33.50@34; chop \$30@30.50 per ton in 100-pound sacks.

Fruit.

Apples.—Jonathans \$4.50 per bbl; Kings at \$5; Northern Spies \$4@6; Greenings \$5@5.25; Wageners \$4.50.

WHEAT

Wheat prices advanced last week to the highest point since the first of the year. Threats of war in the Near East, coupled with continued evidence of support on declines credited to eastern speculators were among the influences which lifted the market out of the rut. The market is not in an entirely healthy state as the United States still has a surplus of 80,000,000 bushels to be disposed of before July 1, assuming that domestic consumption equals the average of the last five years and that no more than a normal quantity is carried over into the new crop year. Financial conditions abroad and generous surpluses elsewhere make the disposal of our surplus at good prices a difficult matter but nothing has happened yet to indicate that exports from this country will fall off completely. The fact that wheat prices are below the general level of other commodities is of some significance.

RYE

Approximately 35,000,000 bushels of rye have been exported thus far and around 8,000,000 bushels more are reported to have been sold abroad. The crop was 95,000,000 bushels, of which domestic consumption will account for from 35,000,000 to 40,000,000 bushels, leaving 25,000,000 to 30,000,000 bushels to be cleared in the next four and one-half months. Germany reports buying 2,400,000 bushels of rye from Russia recently.

CORN

Corn prices reached new levels last week, especially on the forward deliveries. Receipts have declined and are now running below the average for this time of year, although the advance has started country selling again. Industries and feeders are using large quantities and the advance in Argentine corn makes our corn cheaper to importers. The domestic demand alone seems sufficient to take care of the supply but damage to the new Argentinian

crop is not being repaired so that the export situation looks favorable.

OATS

Oats prices are low when compared with corn. Stocks at terminals are large but not burdensome and are decreasing gradually in spite of primary receipts above normal for this time of year.

SEEDS

Clover seed prices gained slightly last week as the demand broadened on the recent decline. Quotations are about \$1 lower than a year ago, while timothy seed is a shade higher. Spring demand usually is strongest in March.

FEEDS

Wheat feeds have turned firm again as cold weather has improved the demand, feed consumption generally is heavy, and flour mills are operating at a lower rate than two months ago. Cottonseed meal and linseed meal, however, are weak, with the demand unimproved even at lower prices. Export buying of cottonseed cake has declined. Gluten and hominy feeds are practically unchanged with offerings slightly in excess of the demand.

HAY

Most hay markets are dull with the holders anxious to realize. Receipts of low grades continue heavy while strictly choice hay is rather scarce. The weather change has not increased the demand appreciably.

POULTRY AND EGGS

Snow and cold weather checked the decline in the egg market and brought a small upturn in values. Market receipts are increasing steadily although they may subside in the next ten days as a result of the recent turn in the weather. There is usually a lag of a couple of weeks between a change in production and its reflection in market receipts. But bad weather will not greatly delay the spring increase in the lay and lower prices are probable. In the Chicago market eggs for late February delivery are quoted at about five cents below present prices and for April delivery about three cents lower still, indicating the consensus of opinion as to the trend of values. Poultry prices have advanced substantially in the last six weeks. As the receipts are declining, further advances are logical.

Chicago.—Eggs, miscellaneous 30@30½c; dirties at 25@27c; checks 24@26c; fresh firsts at 30@30½c; ordinary firsts 29@29½c. Live poultry, hens 25c; springers at 23c; roosters 15c; ducks 23c; geese 16c; turkeys 25c.

Detroit.—Eggs, fresh candled and graded at 32½@33c; storage 25@26c. Live poultry, springers at 26c; light springers 22c; heavy hens 26@28c; light hens 24c; roosters 15c; geese at 18c; ducks 26@27c; turkeys 25c.

BUTTER

The butter market turned right about face last week and recovered most of the loss of the previous week. Severe weather was an important factor by cutting down shipments and stimulating the demand. Receipts at the four principal markets declined and production reports from creameries show a slight falling off during the two previous weeks, with a probability of a further loss during the week under review. The upturn seemed to have spent its strength on the close, however, as buyers were going slow on the advance and some foreign butter which had been withheld to avoid loss was being offered for sale.

Prices on 92-score fresh butter were as follows: Chicago 48½c; New York 49c. Fresh creamery in tubs sell in Detroit for 47@48c.

POTATOES

Marketable stocks of white potatoes

in the United States on January 1, 1923, in the thirty-five late potato states were 125,290,000 bushels. Holdings were 39 per cent more than last year and 16 per cent more than two years ago. In view of the heavy shipments made in the first five months of 1922, the prospect for disposal of the large holdings this year is not especially encouraging. Northern sacked round whites were quoted at 90c@ \$1.10 per 100 pounds in the consuming markets, and 55@60c f. o. b. shipping points.

BEANS

After sagging until the middle of the week the bean market turned strong and advanced to \$7.75 per 100 pounds for choice hand-picked whites f. o. b. Michigan shipping points. The wholesale grocers resumed buying after the lull recently, and speculative interests seeing the change of trend began to buy also with a prospect that the \$8 quotation will be restored before the market loses its momentum. Light red kidney beans are quoted at \$8.15 while dark red beans which are extremely scarce are quoted at \$8.50 or even higher. Stocks of the latter in Michigan are believed to be but little more than are needed for seed.

WOOL

Seaboard wool markets were more quiet last week, but prices were decidedly firm. Buyers are responding to offerings of woolen goods in spite of higher prices than a year ago so that confidence is general. Foreign markets also have quieted down because of restricted buying by the United Kingdom and the continent and prices have been irregularly higher and lower. Contracting is starting slowly in the west with as high as forty-six cents paid for some half-blood and three-eighths clips.

The Boston wool market is quoted as follows: Michigan and New York fleeces, delaine unwashed 55c; fine unwashed 48@50c; half-blood unwashed 53@54c; three-eighths blood unwashed 54@55c; quarter-blood unwashed 52@53c.

DETROIT CITY MARKET

The market has been a quiet one all week. Fruits and vegetables continue active with little change in prices. Eggs are increasing in quantity and the market isn't showing a great deal of strength. Apples sell for \$1@2.50; cabbage 90c@\$1 per bu; potatoes \$1.50@1.65 per 150 lbs; onions \$3@3.50 per 150-lb sack; carrots \$1@1.25 per bu; poultry 22@26c lb; eggs 32@32½c; hogs 5@12c per bl; veal 15@18c.

COMING LIVE STOCK SALES.

Aberdeen-Angus.

March 21.—Russell Bros., Merrill.
March 8.—Alexander & Bodimer, Vassar.

Holsteins.

Feb. 27.—Muscott & Graham, Ithaca.
Feb. 23.—E. O. Phelps, Tekonsha.
March 6.—H. W. Evans and D. W. Fisher, Eau Claire.
March 10.—Musolf Bros., South Lyon.

Shorthorns.

March 7.—C. M. Billhimer, Corunna.

Duroc Jerseys.

Feb. 21.—Clyde Godfrey, Jonesville.
Feb. 22.—Gratiot County Duroc Breeders, Ithaca.
Feb. 27.—Matt Matthisse, Byron Center.

O. I. C.'s and Chester Whites.

Feb. 27.—Emery H. Jewett, Mason.
March 8.—Alexander & Bodimer, Vassar.

Poland Chinas.

Feb. 17.—Witt Bros., Adrian.
Feb. 21.—C. O. Goodrich, Plymouth, Indiana.

Feb. 21.—N. Fay Borner, Parma.
Feb. 22.—A. A. Feldkamp, Manchester.
Feb. 24.—G. S. Coffman, Coldwater, Mich. (Postponed from Feb. 14).

Feb. 27.—J. E. Mygants, St. Johns.
Feb. 28.—Chas. Wetzel & Sons, Ithaca.
March 1.—Archie Ward, Breckenridge.
March 22.—Sonley Bros., St. Louis.

Spotted Poland Chinas.

March 2.—C. Watson, Breckenridge.

Shropshires.

Feb. 21.—Clyde Godfrey, Jonesville.

Live Stock Market Service

Wednesday, February 14.

DETROIT

Receipts 399. Market slow and 25c lower; thirty-five cars on Pere Marquette did not get in time to sell.
Best steers \$ 8.25@8.50
Handyweight butchers .. 7.50@ 8.00
Mixed steers and heifers 6.50@ 7.50
Handy light butchers ... 6.00@ 6.50
Light butchers 5.25@ 5.75
Best cows 5.00@ 5.50
Butcher cows 4.25@ 4.75
Common cows 3.00@ 3.25
Canners 2.25@ 3.00
Choice bulls 5.00@ 5.25
Bologna bulls 4.00@ 4.75
Stock bulls 3.50@ 4.00
Feeders 6.25@ 7.25
Stockers 4.50@ 6.00
Milkers and springers... \$ 40@80.00

Veal Calves.

Receipts 245. Market steady.
Best \$15.00@15.50
Others 6.50@14.00

Sheep and Lambs.

Receipts 523. Market steady, quality very common.
Best lambs \$14.00@14.50
Fair lambs 12.50@13.25
Light to common 9.00@12.00
Fair to good sheep 6.00@ 7.75
Culls and common 2.00@ 4.00

Hogs.

Receipts 967. Market 15c higher.
Mixed hogs \$ 8.45
Pigs and light weights... 8.65
Roughs 6.75@ 7.00
Heavies 8.00
Stags 4.00@ 5.00

CHICAGO

Hogs.

Estimated receipts today are 22,000; holdover 16,507. Market 10c higher than Tuesday's close. Bulk of sales \$7.70@8.30; tops \$8.45; Heavy 250 lbs up \$7.85@8.10; medium 200 to 250 lbs \$7.95@8.30; light 150 to 200 lbs \$8.25@8.45; light lights 130 to 150 lbs \$8@8.40; heavy packing sows 250 lbs up \$6.90@7.30; packing sows 200 lbs up \$6.60@7; pigs 130 lbs down \$7.50@8.

Cattle.

Estimated receipts today are 8,000. Killing classes are strong to 25c higher; stockers slow. Beef steers medium and heavy weight 1100 lbs up at \$10.25@11.60; do medium and good at \$8.25@10.25; do common \$6.95@8.25; light weight 1100 lbs down at \$9.25@11.25; do common and medium \$5.90@9.25; butcher cattle heifers at \$5@9.75; cows \$4.95@7.75; bulls bologna and beef \$4.40@6.65; canners and cutters cows and heifers \$3@4.15; do canner steers at \$3.50@4.50; veal calves light and handyweight \$9@13.50; feeder steers \$5.75@8.

Sheep and Lambs.

Estimated receipts today are 13,000. Market active and generally strong to 25c higher. Lambs 84 lbs down at \$13@15; do culls and common \$9.50@13; spring lambs \$9.50@13.25; ewes \$5.25@8.25; ewes cull and common \$3.50@6.25; yearling wethers \$13@15.25.

BUFFALO

Cattle.

Receipts eight cars. Slow. Choice to prime shipping steers 1400 lbs up \$9@9.50; good to choice shipping steers \$8.50@9; heavy fat of medium quality \$7.50@8; medium to good \$7@7.50; light native yearlings fancy quality \$9@9.50; medium to good \$8@8.50; best handy steers \$8.25@8.50; plain \$6.50@7; handy steers and heifers at \$6.50@7; western heifers \$6.50@6.75; light Michigan butchering heifers at \$6.50@7; best fat cows \$5.75@6; medium good \$4.50@5; cutters at \$3.25@4.25; canners good weight at \$2.25@2.50; common and old rims \$1@1.50; best heavy bulls \$5@5.50; heavy bologna bulls \$4.50@5; common bulls \$4@4.50; best feeders at \$7@8; medium calves, tops at \$16.

Hogs.

Receipts 40 cars. Market is lower. Medium and heavy \$8@8.25; yorkers and pigs \$8.75.

Sheep and Lambs.

Receipts 15 cars. Market is slow. Top lambs \$15; yearlings \$12@13.50; wethers \$9@9.50; ewes \$7@8.

TON LITTER CONTEST.

THE Hoosier Ton Litter Club, sponsored by Purdue University, is the greatest piece of advertising that has been done for the pure-bred hog. This contest was to see how many breeders could produce a ton of pork from one litter at six months of age. It was open to all breeds. Five hundred fifty-five litters were entered, and thirty-five made the mark. C. R. Swartz, of Burne, Indiana, raised the champion litter on skim-milk, corn and clover pasture. Three things contributed to his success: Good seed stock, good feed and good management. Conclusive proof has been given that the feed used to produce a 170-pound scrub will grow a 240-pound pure-bred.

BUFFALO MARKET NEWS.

THE Live Stock Exchange Cooperative Commission House at Buffalo is doing big business. The house opened for business on November 1. The third week of operation it handled 209 of the 802 loads sent to seventeen houses located at that point.

KEEP THE MEMBERS TIED UP TO LOCAL ORGANIZATION.

IN our talk about building strong farm organizations we have said and repeated hundreds of times, the value and necessity of good leadership. I believe that we need to add to this the gospel of good membership.

Experience shows that we must keep the members closely tied to the local organization, to do permanent service to the members and to the community. Strong leaders can carry the load for a time, but the day comes when they can no longer do this. Then if the membership has not been trained to lift, the organization is in a bad way. In our effort to build healthy, strong and serviceable farm organizations we should see to it that the closest business and sociable relations exists between the members of the local association.—P. G. Sley.

Michigan Allied Dairy Convention

Kalamazoo, Feb. 20-21-22-23, 1923

\$7.50 After 30 Days Free Trial

The Belgian Melotte Separator — with the wonderful Self-Balancing Bowl. No other like it.

30 days' free trial—then, if satisfied, only \$7.50 and a few easy payments—AND—the wonderful Belgian Melotte Separator is YOURS.

No Money Down!

Catalog tells all—write. **Caution!** U. S. Bulletin 201 shows that vibration of the bowl causes cream spoilage! The Melotte bowl is self-balancing. Positively cannot get out of balance therefore cannot vibrate. Can't remix cream with milk. The Melotte has won 224 Grand and International Prizes.

Catalog FREE

Write for new Melotte catalog containing full description of this wonderful cream separator and the story of M. Jules Melotte, its inventor. Don't buy any separator until you have found out all you can about the Melotte and details of our 16-year guarantee which is infinitely stronger than any separator guarantee. Write TODAY.

The Melotte Separator, H. B. Babson, U.S. Mgr. Dept. 9102 2843 W. 19th Street, Chicago, Ill.

Runs so easily, bowl spins 25 minutes after you stop cranking unless you apply brake. No other separator needs a brake. Bowl chamber is porcelain lined.

KEEP BEES

Complete Beginner's Outfits with or without bees. Full line of Beehives, Sections, Comb Foundation, Smokers, etc. General Agents in Michigan for the A. I. Root Co. Send for 1923 catalog. Bees wanted.

M. H. HUNT & SON,

Box 525, Lansing, Mich.

OFFICERS ELECTED BY FARM ASSOCIATIONS.

MANY farm associations held elections at Farmers' Week. We have received reports of the following officers being elected:

Michigan Guernsey Breeders' Association:

President, Fred C. Holbeck, of Long Lake; vice-president, John Endicott, Detroit; secretary-treasurer, C. Faye Myers, Grand Blanc; executive committee, H. W. Wigman, of Lansing; George Hicks, Saginaw; R. A. Holmes, Grand Rapids; H. W. Whittier, W. W. Burdick, F. H. Ormston.

Michigan Sheep Breeders' Association.

President, J. N. McBride, Burton; secretary, Don Williams, East Lansing. Michigan Swine Breeders' Association.

President, Newton J. Barnhart, St. Johns; secretary-treasurer, F. E. Haynes, Ionia. Michigan Jersey Cattle Club.

President, H. F. Probert, Jackson; vice-president, O. B. Graham, Mendon; secretary-treasurer, Alfred Hendrickson, Hart; executive committee, A. Baldwin, Capac; J. B. Maher, Alma. Michigan Holstein-Friesian Association.

President, E. E. Smith, of Adrian; vice-president, W. R. Harper, Middleville; directors, Neil Lamoreaux, Comstock Park; C. W. Post, Hillsdale; H. W. Norton, Lansing; Silas Munsell, Howell; George Spillane, Flint; M. W. Wentworth, Battle Creek; R. F. Sloan, Charlevoix.

Michigan Shorthorn Breeders' Association.

President, S. H. Pangborn, of Bad Axe; vice-president, M. E. Miller, of Greenville; secretary-treasurer, W. E. J. Edwards, East Lansing; directors, Frank Lessiter, Clarkston; Fred Hebblewhite, Armada; Jay Smith, Ann Arbor; Thomas Martin, of Ionia; H. W. Hays, Chelsea.

Michigan Muck Farmers' Association.

President, A. H. Sherman, Homer; vice-president, H. I. Sippy, of Walkerville; secretary-treasurer, Dr. Paul Harmer, East Lansing.

Michigan Honey Producers' Exchange.

President, E. D. Townsend, North Star; vice-president, B. F. Kindig, of East Lansing; secretary-treasurer, Floyd Markham, Ypsilanti; directors, David Running, Filion; R. H. Kelty, East Lansing.

Michigan Beekeepers' Association.

President, E. B. Terrell, of Detroit; vice-president, Ira D. Bartlett, of East Jordan; secretary-treasurer, Russel H. Kelty, East Lansing; executive committee, Colin P. Campbell, A. G. Woodman.

Michigan Potato Producers' Association.

President, Thomas Buell, of Elmira; vice-president, R. C. Bennett, of Alba; secretary-treasurer, H. C. Moore, East Lansing; directors, Thomas Buell, of Elmira; J. D. Robinson, Levering; E. S. Brewer, Millersburg; Fred Brudy, Wolverine; R. C. Bennett, Alba.

Michigan Duroc-Jersey Breeders' Association.

President, O. F. Foster, of Pavilion; secretary-treasurer, F. J. Schaffer, of Detroit; directors, V. A. Freeman, of East Lansing; Carl Story, Lowell; N. Barnhart, St. Johns.

Michigan Hereford Breeder's Association.

President, Frank H. Sanders; Michigan Poland China Breeders' Association.

President, W. E. Livingston, Parma; vice-president, A. A. Feldkamp, Manchester; secretary-treasurer, W. I. Wood, Birmingham.

Michigan Red-Polled Cattle Club.

President, N. C. Herbison, Birmingham; vice-president, R. L. Finch, of Saline; secretary-treasurer, Mark E. Westbrook, Ionia; director, (for three years), Frank A. Randall, Armada; (for two years), John E. Killick, of Doster.

APPLES

Barreled apple prices weakened in the last few days. New York Baldwins were quoted at \$4.50@5 in consuming cities. Shipments of barreled and boxed stock combined were considerably above the average for this time of year.

The demand for horses has expanded recently but the receipts likewise have increased and prices are no better. Choice heavy drafters are quotable up to \$300 at Chicago, but \$175 to \$225 takes the bulk of the horses weighing above 1,600 pounds. Chunks weighing 1,350 to 1,550 pounds are bringing \$125 to \$175.

OHIO SHEEP BREEDER MAKES HIS OWN WORM DESTROYER

Geo. E. Helser, Breeder of Merino Sheep, Finds a Sure Way to Keep Sheep and Lambs Free From Worms and in Healthy Condition

"Like every breeder and farmer who keeps sheep, I have had no end of trouble and losses from stomach and intestinal worms. I learned that The Ivo-San Laboratory of Cleveland, Ohio, had been conducting some extensive investigations and tests in connection with stomach and intestinal worms in all livestock, particularly sheep and hogs.

"I wrote to them to find out what results they had obtained and in reply they said they had discovered what seemed to be the most efficient and satisfactory remedy to destroy worms in livestock, that has yet been produced. Furthermore, their preparation was in concentrated form so farmers could mix their own remedy. They offered to send me a 15-lb. package of this new discovery, telling me how I could make my own worm destroyer and save over half of the usual cost of such preparations, and that if it did not do the work, the small charge they made for it would be refunded.

"I sent for a 15-lb. package of their Wormix. It did the work. Later I ordered six packages more.

"I keep it before my lambs and sheep constantly—let them have free access to it and as a result I haven't a lamb or sheep that shows a trace or sign of stomach worms. I never had lambs do so well or look so rugged and thrifty. Wormix is a real worm destroyer and preventive too.

"If sheep owners would keep it before their sheep and lambs constantly, the worm problem would disappear from their flocks entirely, just as it has from mine, I am sure.

Wormix, as Mr. Helser of Lafayette, Ohio, stated.

is a worm destroyer in concentrated form. You buy it at a small cost and mix it with ordinary salt. Thus you do not pay drug prices for salt or other fillers. You save over half the usual cost of such preparations and you get a worm destroyer far ahead of anything yet discovered. It also contains bone growing minerals, is a tonic and digestive and will prove the best thing you ever used on lambs, sheep, hogs, horses and cattle for ridding them of worms—keeping them free from these costly pests—keeping all your stock in healthy, thrifty, growing condition. No trouble to feed; no starving, dosing or drenching. Animals take it readily and doctor themselves.

WORMIX is sent direct to you, charges prepaid. One 15-lb. pkge., Wormix—enough to make 100 pounds \$ 3.50 One 90-lb. pkge., Wormix—enough to make 600 pounds 18.00 (West of the Rocky Mountains, 6c a lb. more.)

You take no risk—if Wormix does not prove satisfactory, your money will be refunded. Fill out coupon NOW.

The Ivo-San Laboratory, 212 Prospect Ave., Cleveland, Ohio.

Please find enclosed for packages of your WORMIX, to be sent all shipping charges prepaid, on your "money-back" guarantee. Also send your easy directions for mixing and feeding.

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Lace Belts Quick and Easy

No Tool But a Hammer

A Size for Every Belt

"Never Lets Go"

Use Alligator Steel Belt Lacing. Avoid costly delays. Protects belt ends. Anyone can apply it. Permanent, economical and used by farmers and implement manufacturers the world over. Strongest on earth.

Joint is smooth and flexible, will run over idlers and in any service where the belt will run. Sold by dealers everywhere.

Flexible Steel Lacing Co.
4612 Lexington Street, Chicago, Ill.
In England at 155 Finsbury Pavement, London, E. C. 2

Farm and Dairy Boilers

\$55.00

Storage and Stock Tanks

Gasoline and Oil Storage Tanks

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Niles Steel Tank Co.

NILES, MICHIGAN

Empire Woven Fence

10 Rods on 10 Days' Trial

Anyone can say their fence is best—we let EMPIRE speak for itself.

SEND NO MONEY

Just ask for our Special Trial Offer under our Money-Back Guarantee. Then you can see the fence, put it up, test it as severely as you wish—if not better in every way, return it at our expense and get your money. Freight prepaid east of Mississippi and north of the Ohio rivers.

BOND STEEL POST COMPANY
31 Maumee St. Adrian, Mich.

FOR SALE USED MACHINERY

16 H., 18 H., 20 H., 25 H. Nichols & Shepard Steam Traction Engines. 16 H., 18 H., 22 H. Huber, 18 H. and 20 H. Rumely, 18 H. and 20 H. Pitts, 20 H. Reeves, 18 H. Aultman & Taylor, 18 H. Minneapolis, 25 H. I. Case, 25 H. In. and 36 H. In. Wood Bros., 36 H. In. Case, 32 H. In. Minneapolis. Stand with Belt Power Press. Write for our complete second hand list. Buy used machinery and save money.

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2979 Dorr St. TOLEDO, OHIO

PERMANENCE

HOOSIER SILOS last for generations. Proof against wind, fire, frost and decay. Reinforced every course of tile with galvanized steel cable. Continuous floors with double sealing clamps, set flush with inside wall allow even settling of ensilage. HOOSIER SILOS also in wood—same splendid value—backed up by Hoosier reputation. Special inducements for early shipments. Buy NOW—have your silo when you need it. Territory open for good live salesmen. Write today for free literature.

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Albany, Ind. Dept. M-99

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Fancy new winter caught fish packed in new boxes 110 lbs. net weight. Pickerel, round 8c; Pickerel hds., and dressed 10c; Yellow Pike 13c; Tullibee Whitefish 11c; No. 1 Whitefish 15c; Silver Herring 4c; smaller quantities 5c higher per lb.; box charge 30c. Write for complete price list Fresh, Salt, Smoked & Canned Fish.

Address Box 44
JOHNSON FISH CO., Green Bay, Wis.

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at World's Original and Greatest School. Become independent with no capital invested. Write today for free catalog. **JONES NAT'L SCHOOL OF AUCTIONEERING**, 28 N. Sacramento Blvd., Chicago, Ill. **CAREY M. JONES**, Pres.

OATS, BARLEY, WHEAT, POTATOES, New varieties. Tremendous yields! Best quality. G. A. Read, Read's Exp. Farms, Charlotte, Vt.

SEED

Real Estate Market

FOR SALE 80 acre farm, 4 miles from railroad, town of 3500 population. 1½ miles to school. Best of soil. Good well, house, barn, granary, young orchard, 12 acres fall wheat, 17 acres meadow, 10 acres fall plowing, balance pasture, all fenced. Wm. Greenfield, Onaway, Michigan.

MUST SELL to settle an estate 240 acre farm about ½ under cultivation. Balance timber and pasture well fenced. Good house, basement barn, shop, granary, hog and poultry house, good water, some fruit. Close to school and market \$25.00 per acre for quick sale.

For Sale 40 acres land. New 3 Room House. 10 acres, clear, near Houghton Lake. Price 1,000 Dollars. Address: Charles Borgeson Houghton Lake, Mich.

Free U. S. Land 200,000 A. in Ark. for homestead—free. Send 5c for Guide Book and Map. **FARM-HOME**, Little Rock, Ark.

Want to hear from party having farm for sale Give particulars and lowest price. **JOHN J. BLACK**, Copper St., Chippewa Falls, Wis.

We Have Cash Buyers for farms at real bar gain prices. Describe fully. **Central Land Bureau**, New Franklin, Mo.

Sell Your Farm by my quick and easy method. It brings cash buyers. Send for particulars. **Albert Shirley**, 703 South Rose Street, Kalamazoo, Michigan

FOR SALE Many farm bargains, price and terms easy. Write for our new listings. **Strang Real Estate Agency**, Lakewood, Mich.

CASH YOUR PROPERTY QUICKLY, location immaterial. Give best price. **Universal Sales Agency**, Box 43, N. Topeka, Kans.

Farms Wanted sell your farm quick for cash New method, small expense. **Weaver Sales Co.**, Congress Bldg., Dept. 6, Detroit

If You Want To Sell Your Farm

Write, **JEROME PROBST**, Ann Arbor, Mich.

40 A. Imp. farm \$1200, Good terms. Other farms. **McGrath**, Mountain View, Mo.

Farm Wanted LEADER BRAND, Cimarron, Kans. Write for free list. **DeCoudres**, Bloomingdale, Mich.

50 Good Farms Write for free list. **DeCoudres**, Bloomingdale, Mich.

The New Improved *Walsh* No-Buckle Harness



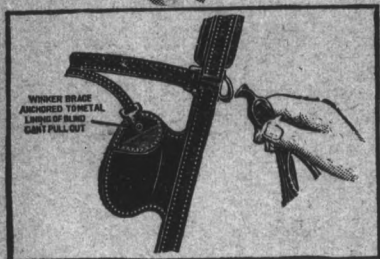
Made in All Styles
Breechingless
Side Backer
Express etc

It has been eight years since I invented the Walsh No-Buckle Harness. Today there are thousands of satisfied users in every state in the Union.

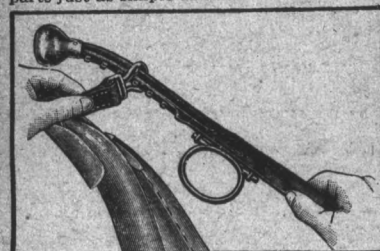
JAMES M. WALSH



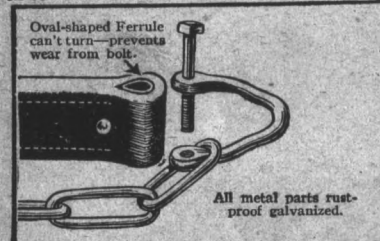
**30 DAYS
FREE TRIAL**
Send no Money



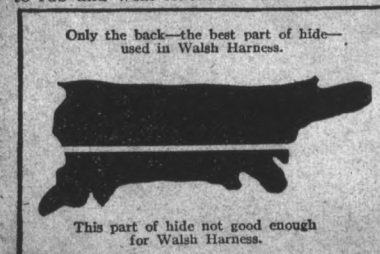
Handy This picture shows how easy it is to hitch and unhitch. All parts just as simple as this.



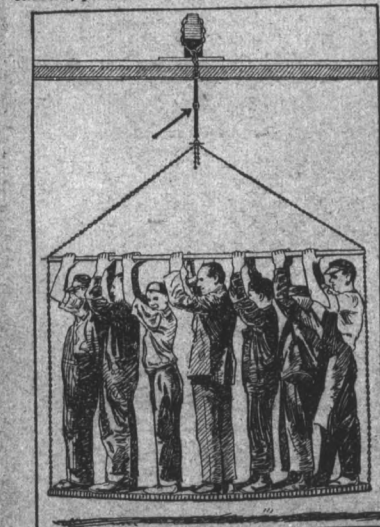
Easy Adjustments Walsh Harness can be adjusted from large team to small team in ten minutes and fit perfectly.



Durability Not a single place on Walsh Harness for metal to rub and wear leather.



Quality Only strongest part of hide is used. High-grade, bark-tanned, packers' Northern steer hide leather.



Strength From photograph of an actual test made for U.S. Army Officers. One of our regular Walsh side straps holding seven men in air, and the Walsh strap holder did not slip a fraction of an inch. The same strap with buckle in it broke with three men. Get Free Book for complete details.

Backed by the strongest guarantee ever made on a harness.

The average cost of repairs per year is only 9 cents

Before You Buy Harness

Post yourself on this new way of making harness which has three times the strength of buckle harness. Let me send you a set of Walsh No-Buckle Harness on thirty days' free trial, just as thousands in every state in the Union have done. Let me show you how harness can be made three times stronger without buckles—how much better looking and how much handier in every way. Try a Walsh on your team 30 days. Send no Money. If it is not all that I claim, send it back at my expense. No obligation on your part. Write for the free book today.

Costs Less—Lasts Twice as Long

This wide-open, liberal offer shows that the Walsh must be an exceptionally good harness. If I did not know positively that Walsh Harness is better in every way than buckle harness, I could not make such an offer. In addition to having harness in the hands of thousands of users the country over for years past, I have tested and proven in various ways that my harness is better and stronger, hence cheaper by far than any other harness. I prove conclusively in my new harness book, which I am waiting to send you, that Walsh No-Buckle Harness will positively last twice as long as buckle harness.

Greatest Advance in Harness Making

Not only is the Walsh No-Buckle Harness stronger, but it is easier to put on and take off. It is also better-looking, handier, and eliminates frequent repairs. Has better fitting hames, adjustable strap holder—the harder the pull, the tighter it holds—renewable spring snaps and many other advantages explained in my free book. The Walsh is easily adjusted to fit any horse perfectly. And remember that Walsh Harness actually costs less than buckle harness because it does away with repair expense, and lasts longer.

The World's Strongest Harness

Users say the leather in Walsh Harness is the best they ever saw in harness. It is old-fashioned, bark-tanned, packers' Northern steer hide leather. A test made in a scientific laboratory proved that a Walsh 1½ inch breeching strap holds over 1100 pounds. The same strap with buckle in it breaks at about 350 pounds pull. When you consider that ordinary harness has 68 buckles, and Walsh Harness none, you'll understand why my harness does away with repairs and outwears two sets of buckle harness.

Friction Another Destroyer of Harness

Rings are another thing that makes harness wear out before it should. Examine your old harness and you'll find where rings have worn the straps at the ends. There are 270 places on an ordinary

buckle harness where ring friction wears the straps in two. Walsh Harness has no rings to wear straps in two. Many other advantages are explained in the free book. Write for it today.

What Users Say

Government Experiment Stations, Agricultural Colleges are among the thousands of users in every state who praise the Walsh Harness. Walsh Harness took First Prize at Wisconsin State Fair in 1921 and 1922.

Mr. G. G. Anderson, Aiken, Minn., bought his first Walsh Harness five years ago and bought three more sets since for his other teams. He says: "Walsh

has buckle harness beat a mile."

Mr. E. E. Ward, Seneca Falls, Wis., says: "Have used Harness over 40 years. The Walsh is the best yet."

Mr. J. W. Rogers, R. No. 4, Baldwinville, N. Y., says: "Have used it skidding logs and that is giving it a hard test. I think enough of it that I will order another set in the Spring."

\$5.00 After 30 Days' Free Trial

Balance easy payments or pay cash after trial if you wish. Selling direct from the factory to you enables me to give the highest quality of harness possible to make at lowest prices. You can get a Walsh Harness in any style—Breechingless, Back-Pad, Express, etc. Easily adjusted to fit any horse perfectly.

Write Today. My free harness book will give you many wonderfully interesting facts and valuable information on harness—tells all about the Walsh No-Buckle Harness—what hundreds

of farmers think about it. We have a plan whereby you can make money showing Walsh Harness to your neighbors. There's a copy ready for you—Write Today.

JAMES M. WALSH, President

WALSH HARNESS COMPANY
128 Keefe Avenue, MILWAUKEE, WIS.

Write for Your Copy Today

See How Buckles Weaken and Tear Straps



BUCKLES weaken the straps and cause your harness to break long before it has served its time. Walsh Harness has no buckles.
RINGS wear the straps in two at the edges by friction. Walsh Harness has no rings to cause friction.

See How Rings Wear End of Straps in Two



FREE Handsome BOOK With 100 Illustrations

THE Walsh HARNESS
Not a buckle on it
Send No Money—Mail Coupon or Postal for FREE BOOK
James M. Walsh, Pres., WALSH HARNESS CO., 128 Keefe Avenue, Milwaukee, Wis. Send me free of charge Walsh Harness Book, free trial offer and liberal long time terms on Walsh Harness.
Name _____ P.O. _____ State _____ E.F.D.

Saves Time

I have used your harness two years and like it better than any I have used during the twenty years that I have used teams. I have no bother now with buckles or loops and there are no holes to weaken the straps. Also I save many minutes in harnessing and unharnessing by team, and time counts.—MATT PETERSON, Amasa, Mich.

Stands The Hardest Pulls and Strain

We have been using our Walsh Harness for the past nine months, and have used it to do everything, from plowing to pulling box cars on the mill yards, and find that it will stand the hard pulls and strains we have given it the best of any harness we have ever used.—HUNTER & HUNTER, Hulbert, Mich.

Strong, Handy, and Fits Well

I have given my Walsh a good test, and it doesn't show the least bit of wear or strain. It is strong, handy, and fits well. I like it fine, and would have no other if I could get a Walsh. My neighbors think it great. It is all more than you say for it.—EARL ECKLEY, Route No. 6, Flint, Mich.

Most Convenient Harness Ever Used

I purchased a harness from you, and have had it in continual use in all kinds of work and the harness shows no defect. It is the most convenient harness I have ever used. It is all that is claimed for it.—PAUL E. HUNT, Tower, Mich.