

MICHIGAN FARMER

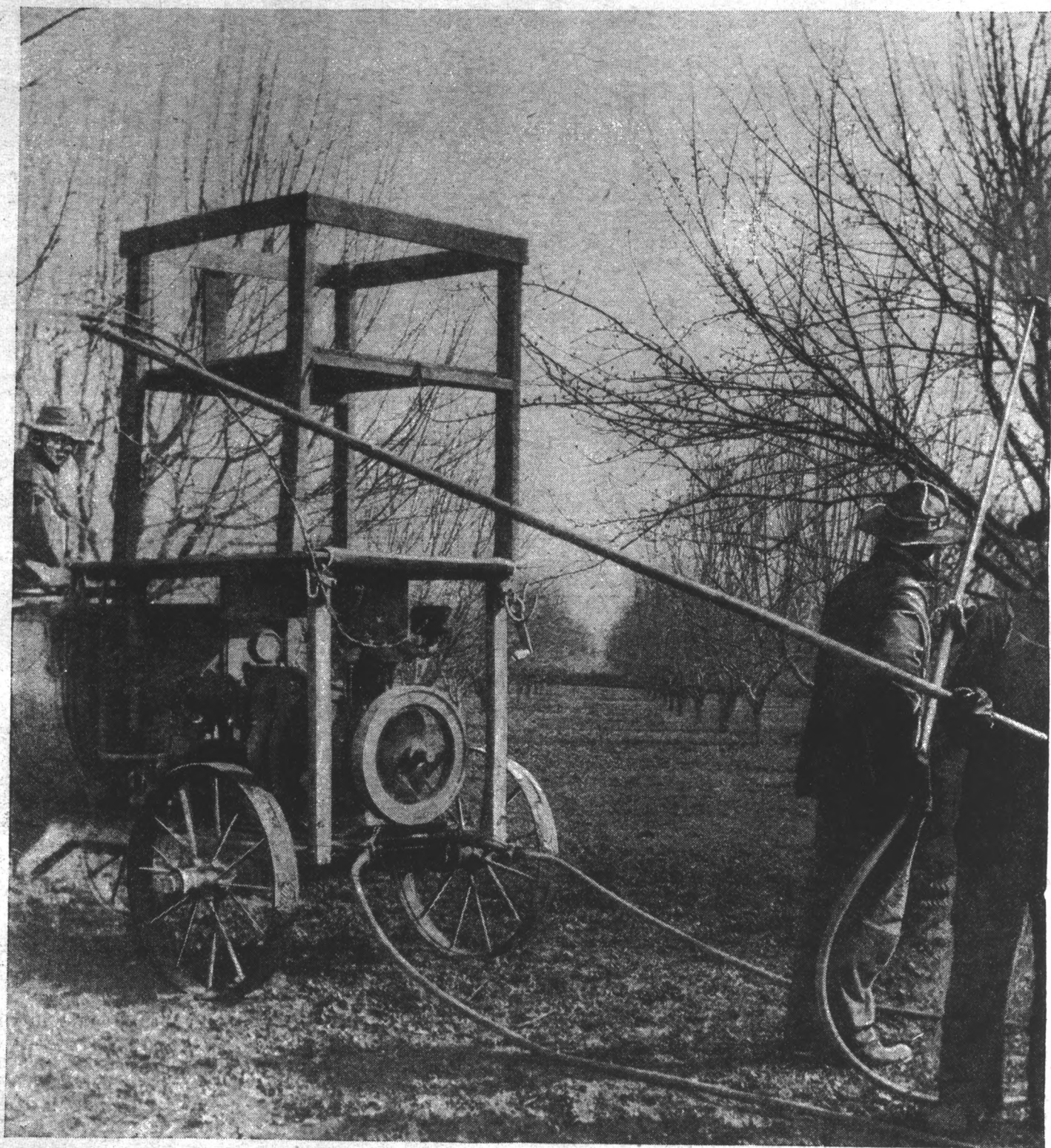
AND
LIVE STOCK
PUBLISHED WEEKLY.

JOURNAL
ESTABLISHED 1843.

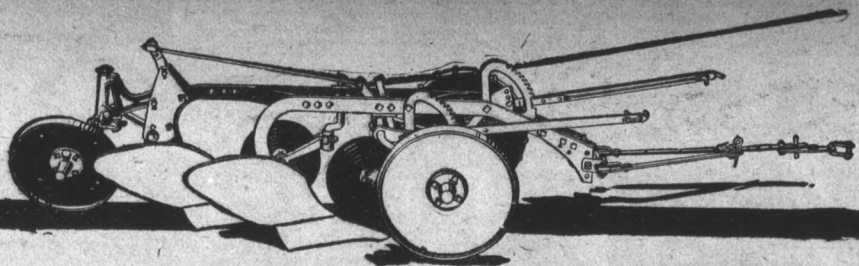
VOL. CLXIV, No. 10
Whole Number 4652

DETROIT, MICH., SATURDAY, MARCH 7, 1925

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Eternal Vigilance is the Price of Success



Every Orchard Needs to be Plowed

Keeping orchards healthy by the proper use of a good plow is the time-proved method. Good plowing feeds the soil with cover crops, banishes mice and insects, kills weeds and conserves moisture.

Do the Job Right—With These John Deere Plows

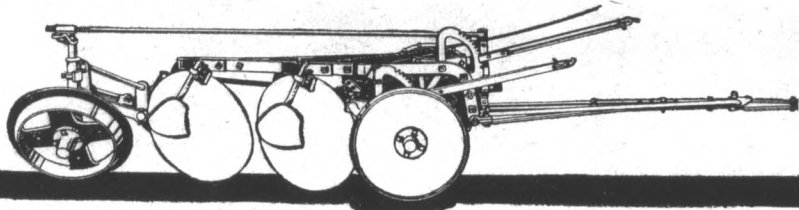
The John Deere No. 45-A, shown above, and No. 26, shown below, are built especially for use with small tractors in orchard plowing.

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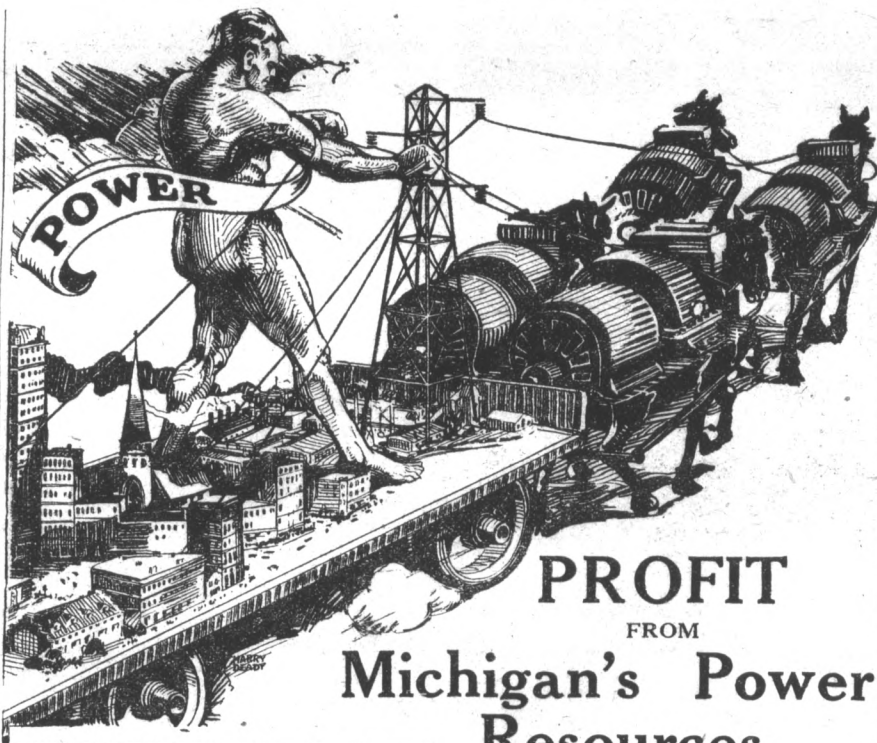
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SALARY INCREASE BILL.

THE bill providing for a \$2,500 salary increase for congressmen and senators, and large increases for members of the President's cabinet, has reached the President, with prospects that he will veto it. Salary boosts are not consistent with his economy program. The cabinet members say they do not want any increase in salaries, and the belief is strong that if anyone is to have an increase in salaries it should be the underpaid workers in the executive departments.

MANY WANT GOVERNMENT JOBS.

THERE is an attraction for government jobs, even if the pay of the clerks and typists is comparatively small, considering the cost of living in Washington. Notwithstanding the fact that thousands of federal employees are losing their jobs as a result of the President's economy program, 21,000 more persons took examinations under the civil service commission last year than the year before.

COX ASKS SEED LEGISLATION.

WITH little prospect of securing legislation directed toward protecting the seed supply, J. C. Cox, formerly of the Michigan Agricultural College, but now of the Federal Seed Service, Chicago, is asking for the removal of the tariff on Canadian grass, alfalfa and clover seed certified by the Dominion Department of Agriculture, and a higher tariff rate on Italian seed, which is not suited to our climate and is responsible for the low yields of hay in many instances.

PURNELL BILL PASSES.

THE Purnell bill, providing larger appropriations for state agricultural experiment stations, has passed both houses of congress, and is awaiting the President's signature.

The purpose of the bill, according to Senator Ladd, of North Dakota, who backed it in the senate, is to provide for more thorough research in marketing, home economics and rural life. Under the terms of this bill each state experiment station will receive \$20,000 during the next fiscal year, with an increase of \$10,000 yearly for four years and a maximum of \$60,000 a year thereafter.

POSTAL INCREASE COMPROMISE.

A COMPROMISE postal pay and rate increase bill has been agreed upon by the house and senate, which provides for a two cents service charge on all parcels post packages, and a new "special handling" service for parcels post, to be charged twenty-five cents a package. The farm organization representatives protested vigorously against this increase in parcels post rates. The senate tried to eliminate it from the bill, but the house forced its restoration to the bill which reaches the White House. In recent years the senate has shown far greater consideration than the house for the interests of the rural people.

SOUTH AGAINST OLEO LAW.

GOVERNORS of several southern states are threatening dire punishment upon the western dairy states that are attempting to restrict by legislation the sale of oleomargarine. The states in which they say legislation is pending that would put a prohibitory license on all oleomargarine manufactured and sold in imitation of butter, are Wisconsin, California, Idaho, Missouri, Ohio, Oregon and Utah.

He that goeth about as a tale-bearer revealeth secrets; therefore, meddle not with him that flattereth with his lips.

DEVOTED
TO
MICHIGAN
VOLUME CLXIV

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
PUBLISHED WEEKLY
ESTABLISHED 1843.

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

QUALITY
RELIABILITY
SERVICE
NUMBER TEN

Early Potatoes for Southern Michigan

The Potato Improvement Program has Made it Possible to Grow Early for Market

By J. W. Weston

Potato Specialist M. A. C.

THE possibility of growing an early variety of potatoes in Michigan for table stock purposes has been demonstrated by several growers in Wayne county. It has been proven that practically as good yields can be secured from the early varieties as from the late varieties, if approved methods are followed. These approved methods necessitate the use of, first, good seed; second, plant food in form of fertilizer and humus, and third, thorough spraying for control of insects and foliage diseases.

If the growers in Wayne county can obtain satisfactory yields, it follows that in a majority of the southern counties of Michigan on soils adapted to potato growing, early potatoes can be grown sufficient to take care of the August and early September demands and in favorable seasons can get the potatoes on the market by the middle of July. In Ottawa and Kent counties last year very satisfactory results were secured with early potatoes. We must remember that last season was an exception for large yields of both the early and late crop of potatoes.

The early potatoes going on the Detroit market last year received favorable consideration, selling in competition with Virginia and New Jersey stock at considerable of a premium. Local home-grown potatoes freshly dug are more attractive and edible than potatoes dug green and shipped long distances in the hot weather of summer. At least this impression exists and is recognized on many of the large markets of the country, quality and grade considered.

Date of Planting.

The planting date of early potatoes is nearly a month earlier than the average date of the last killing frost. The three southern tiers of counties in

dirt immediately following this cool period by use of a weeder run cross-wise of the rows. Covering of the plants when just appearing also helps to control any weeds that may start between the hills, the potatoes coming right along through, while the weeds stay buried.

Soils Best Suited.

The type of soil has a considerable influence on the earliness of the development of the plants. A sand or light sandy loam is best. Sandy loam usually produces a better quality of potatoes than heavier soils do. It has the advantage of remaining in a more mellow condition during the growing season, thus giving the tubers a chance to develop normally, and makes it easier to dig the crop. Humus is probably the greatest limiting factor in potato soils. Humus is organic matter in various stages of decomposition, composed principally of roots and tops of plants, obtained principally from barnyard manure or as green manures from crops planted especially for this purpose.

Several demonstrations conducted by the Soils Department of M. A. C. have proven that good results can generally be expected by the application of some high test commercial fertilizer applied at the rate of about 500 pounds per acre in the row instead of broadcast, or larger amounts may be applied broadcast. The growing of early potatoes invites the use of fertilizers on account of the relatively higher prices received for this crop.

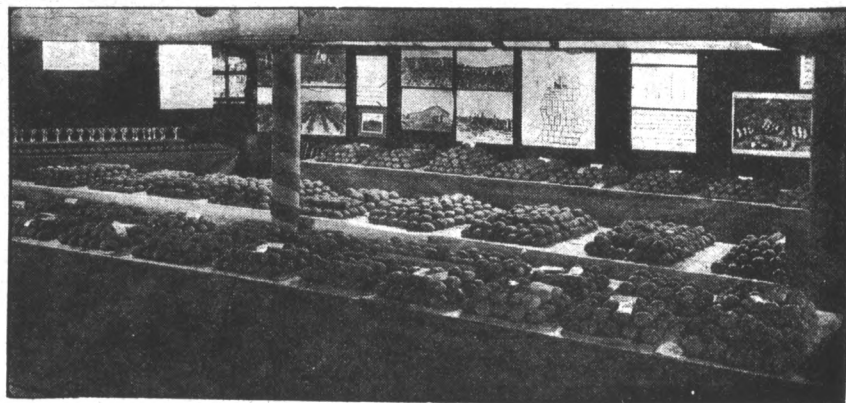
What Varieties Shall we Use?

The early varieties recommended for Michigan planting are the Irish

The opportunity for an early potato market may be gained by looking at the figures which represent the car movement of potatoes into Detroit from June 1 to September 30, the period when Michigan-grown potatoes of quality are least in evidence. In 1921 over 800 cars were shipped into Michigan. Ordinarily we may say Michigan takes close to 1,000 cars of potatoes a year shipped in from outside, a majority of which may be grown in the state. In 1922, 440 cars were shipped from New Jersey. New Jersey is the chief competing state as her potatoes mature or are dug about the same time that Michigan growers can mature a crop of Irish Cobblers. New

growers of early potatoes in southern Michigan show that the plants can be protected against everything except drought. In 1923 a local spray pump company, believing so thoroughly in the opportunities for early potato production and efficiency of the spray program suggested for these demonstrations that they donated a machine for demonstration purposes, with the result that the net profit per acre of Irish Cobblers was increased by sixty-two and one-half per cent.

In 1924 Ralph Carr, county agent, Wayne county, Dearborn, Michigan, states "that two demonstrations were finished comparing Russet Rurals and Irish Cobblers for early market. In both cases the Cobblers made the same yields as the Russets, 200 bushels per acre, and were on the market one month earlier. On the market the Cob-



An Unusually Fine Exhibit of Potatoes, as Shown at the M. A. C. During Farmers' Week. In Selecting Seed Potatoes for the Early Crop, it is Desirable that Type be Considered.

Jersey is waking up to the fact that Michigan is aware of her opportunities in early and mid-season potato production.

The writer attended the New Jersey State Farm Products Show at Trenton, on January 14-15, 1925, and at a surprisingly well attended State Potato Growers' Association meeting, listened to a discussion of potato problems of New Jersey, and one problem which was mentioned in particular, was the development of the growing of early potatoes in Michigan which would necessarily reduce the cars they could expect to ship to us in the future. Their chief problem now is one of diversification. Crops that can be consumed in their own territory for home consumption as they are being squeezed out of the potato game by the growers in Virginia and the south, by Long Island on the north, and by the development of the early and mid-season potato crop in the central west. More late varieties probably will be planted for the markets in their own section for harvest later in the fall and early winter. Some of Michigan's good seed of the White Rural and Russet Rural variety may go into New Jersey, but all of the Irish Cobbler seed could be used in Michigan where a market is available for all its increase.

Spraying is Essential.

Spraying is mentioned as the third item of importance in early potato production, but it might be well to say it is the most important as it would be useless to get good seed and fertilizers then have the plants destroyed by insects and foliage diseases.

The following demonstrations that have been conducted by the successful

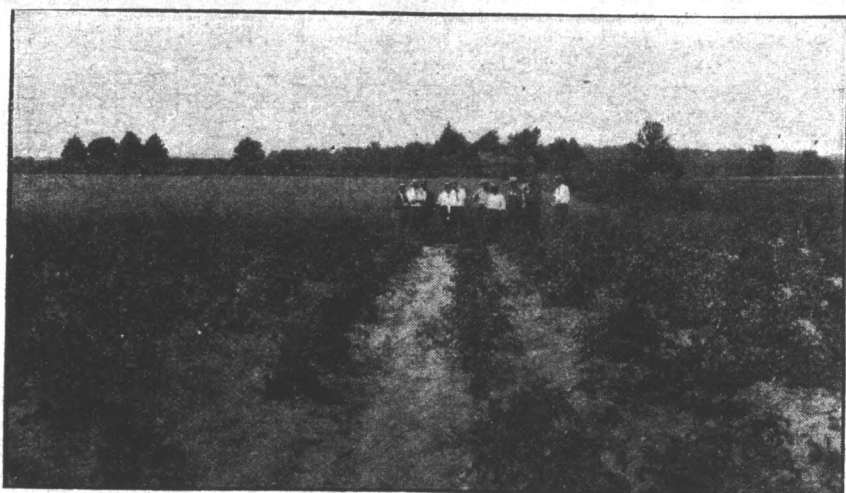
blers brought \$1.25 per bushel and the Russets seventy-five cents. The Detroit market has given the Irish Cobblers an enthusiastic reception and their success in this locality is assured. Our results so far indicate that the Irish Cobblers yield as well here as any variety, and can be marketed when the market is relatively at its highest."

This one qualification should be made, that these potatoes were thoroughly sprayed and that certified seed was used. Irish Cobblers are probably more subject to degenerate diseases and are not so hardy as the Russet Rural and without the use of good seed and the thorough spraying would not stand up to the Russet Rural variety. However, with the increased price one can well afford to grow the Irish Cobbler for the earlier market and get good pay for the trouble of spraying. A detailed description of the insects and diseases which affect early potatoes most seriously might prove of interest.

The Troublesome Flea Beetle.

Insects affecting the early potato crop most seriously are the leaf hoppers and flea beetles. The flea beetle apparently attacks the potato plant while it is still small, causing the greatest loss in preventing rapid growth. This insect eats away a large portion of the leaf surface by making small holes, similar in appearance to the shot hole effect on cherry leaves, so that often fifty per cent of the leaf surface may be destroyed and still the grower not notice anything wrong with the leaves because the shape of the leaf may be intact. It is second only

(Continued on page 313).



Well-fertilized Soil is Essential in Growing Early Potatoes. In the Above Field the Fertilizer Drill Failed to Work on the Two Rows in the Fore-ground. While Good Crops Grew at Either Side, These Produced Little.

Michigan and, the land adjacent to Lakes Michigan and Huron are not subject to frost much after the tenth of May. As it takes less than one month for potatoes to come up, the earliest planting date would probably be near the tenth of April. The number of days from planting to harvesting of the early crop varies from eighty to 100 days. Earlier plantings may be made where facilities are at hand to cover young plants with a light covering of dirt thrown over them by means of a wheel cultivator with disc attachment and then remove

Cobbler and Early Ohio. At present the Irish Cobbler has preference and seed can be secured in carload lots in Michigan. The Michigan Agricultural College Inspection Service inspected and certified 16,685 bushels of this variety this year and only 530 bushels of Early Ohios. The demand for this seed outside the state as well as within the state, is increasing. Seed of known origin may be obtained from the Seed Department of the Michigan Potato Growers' Exchange, Cadillac, Michigan, or through the Michigan Potato Producers' Association at East Lansing.

MICHIGAN SECTION THE CAPPER FARM PRESS



Published Weekly Established 1843 Copyright 1925

The Lawrence Publishing Co.

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TERMS OF SUBSCRIPTION

One Year, 52 issues \$1.00
Three Years, 156 issues \$2.00
Five Years, 260 issues \$3.00
All Sent Postpaid.
Canadian subscription 50c a year extra for postage.

RATES OF ADVERTISING

55 cents per line agate type measurement, or \$7.70 per inch (14 agate lines per inch) per insertion. No advertisement inserted for less than \$1.05 each insertion. No objectionable advertisements inserted at any time. Entered as Second Class Matter at the Post Office at Detroit, Michigan. Under the Act of March 3, 1879.

Member Audit Bureau of Circulation.

VOLUME CLXIV

NUMBER TEN

DETROIT, MARCH 7, 1925

CURRENT COMMENT

Our Farm Women

DATA was recently published showing that there are 9,000 women farmers in Michigan. Of these, it is stated that twenty are farm managers. These nine thousand, we presume, are those in spinsterhood or widowhood, who run their own farms. They are to be commended for their courage in taking full responsibility in the front line in the great and precarious battle of food production. But what of the other two hundred thousand farm women who are not counted in?

Are we sure that all the women farm managers are included in that count? May there not be many who take a greater part of the burden of keeping things going, as Hy Syckle's Sofie does? Are there not thousands who could show that their management of such parts of farming, such as raising chickens, making butter, etc., is what is bringing in the living, and something besides?

There is much truth in the saying, "What is home without a mother?" But there is also truth in, "What is a farm without a woman?" A woman is a necessity on the farm. But nine thousand women have found that men are not necessary for their farm operations. At least, they can hire the necessary man labor to take care of such work as is not advisable for women to do. But can a woman be hired? She can, but it rarely works out satisfactorily. To have things work out right, woman ought to be a part of the family. She should be mother, for usually only mother can satisfactorily handle all the intricate responsibilities which devolve upon the farm woman.

A Strict School

THE farmer should never despair of opportunity for using his head. His complicated business, meeting up with ever changing conditions of weather, markets, the ups and downs of general business, shifts of population, and various other factors, require constant readjustment of his farming enterprise. Shaping his task to render the greatest service to society and to gain through this service the largest returns to himself requires thinking of the highest order.

All of this mental exercise returns adequate recompense in the form of

personal development of the farmer. He lives in a real school which gives every encouragement for constant study. In fact, it is the most fascinating sort of school, since much of the subject matter is studied first hand.

This school is typical in that the rod is also there. Punishment is meted out. The man who refuses to get his lessons, is refused a portion of the income which he would otherwise receive from his farm operations. It is a school in which you cannot shirk and get away with it.

What Of The Village

ABOUT one-fifth of the people of the United States live in villages, while 30,000,000 other people—farm folks—use these villages for purposes of business, education, health, religion and social well-being. In America, these villages are usually unattractive, and not infrequently, they are exceedingly ugly.

Much superior to these, are the villages of older countries. The character of their streets and public buildings, their recreation spots and approaches are attractive often to the point of fascination.

But, a start is being made in the improvement of the villages of this country. The department of agriculture has been studying the problem of village planning to the end of making them more serviceable to the people of the village and rural constituencies.

Has an attractive trading center a stabilizing effect upon its rural people? Here, where rural folks have their chief contact with the outside world, such features as attractiveness, conveniences, service in the way of recreation, as well as educational and economical advantages, would actually contribute to rural life, make farm folks more satisfied with their lot, and, thereby, add to their business success. This proposition is a matter of moment. While subtle in its workings, it contributes much, even in a business way, to both farmers and merchants.

From records and observations, it would appear that in each of those villages where something worth while has been done to make them attractive and more useful to their patrons, some public spirited individual has usually been responsible for the improvement. In behalf of the farm folks of Michigan, may we not here extend to these patriots the gratitude of the rural people of the state, and express the hope that their numbers may be multiplied.

Scouting And Club Work

SCOUTING is distinctly an urban activity, while club work is distinctly a rural boy proposition. Both are laudable

movements which tend toward developing a more useful and enjoyable boyhood and its resulting higher quality of manhood. Their influences in modern life can not be estimated, but we are sure that every boy who engages in their activities will have better moral fiber and greater general usefulness than without them. They are fundamentally makers of better men.

The one outstanding thing regarding these organizations is that one is distinctly urban while the other is distinctly rural. On the other hand, despite the fact that the activities and influences of the city and rural boys differ considerably, we must not lose sight of the fact that both are boys, and being that, they, in common, have youth's visions, desires and temptations.

Scouting develops in a boy his desire to commune with nature, it gives play to his charity instinct, it gives him a good conception of the brotherhood of man, and fills him with romance by appealing to his frontier instinct.

Club work makes a boy more useful, for it teaches him the fundamentals of success in farming. It teaches him good citizenship and makes him for-

ward-looking, but it lacks the romance of scouting or its "help others" influence, just as scouting lacks the practical influences of club work.

Would it not be to the advantage of both institutions if they would unite on a common program supplanting the weaknesses of one by the strength of the other? It seems that such an organization would give the boy a well rounded training. But it would do more. It would give the city and the country boys more in common. It would give them a common meeting ground which would help to break the barriers that now exist between the city and country. To work together in such an organization would teach the coming generations to understand each other better, thus opening the way to urban and rural cooperation for common welfare.

Our Potato Acreage

THIS past week a number of farmers have told us that they intend reducing their potato acreage this year. This, it is assumed, is a general feeling among potato growers throughout the state, unless it be where the early crop is being considered.

Last year the acreage planted in this country was four per cent below that of 1923 and fifteen per cent below 1922. But, the production was considerably in excess of the demand because of a most favorable season, the average acreage yield being eleven bushels above the largest yield previously harvested in the United States.

This yield of 124.2 bushels per acre is twenty-five bushels above the previous ten-year average. Should we secure as much as 110 bushels per acre in 1925, which would be an unusually high average, we could increase our 1925 acreage by five per cent and still grow only enough to provide for a normal per capita consumption.

Better Book Farming

PERHAPS the one who visions a book farmer as a bespectacled individual with a book in his left hand while his right guides the plow as per instructions therein, may not be far wrong.

Book farming really isn't what it used to be. You can't poke fun at it any more because these book farmers no longer try to manipulate the cow's tail instead of its udder to get milk. It seems that these college men who put on real fighting clothes and actually get-out and get their hands dirty have changed notions some.

Lately an interesting thing has happened. A young man, city bred and with but two weeks of farm experience in his life, has become a cattle judging expert without having had cattle to judge. He learned it all in books and did the job so well that he won first honors in cattle judging at the fair last fall, and second in the high school students' judging contest at the college this winter.

That boy knows cows perhaps better than seventy-five per cent of the farmers who have never delved into book knowledge on the matter. He even knows how a cow kicks, having learned even that from a book.

It is true that experience is a great teacher. That fundamental fact will never be changed. But we would be in a mighty bad plight if some people did not leave us records of what their experiences taught them. Few of us know the dangers of dynamite, the lightning stroke, or certain gases, through our own experience. We have learned them from the records of others' experience. It would be disastrous for each to learn it himself. None of us would enjoy the conveniences of today if someone, perhaps hundreds of years back, had not through experience found out and recorded some fundamental facts upon which many of our modern conveniences are based.

Good reading never made a good

farmer worse, but often has made a poor farmer better. We are fast becoming to realize that a book or an article on, for instance, "Corn and Hog Correlations" might have something in it that will actually help us to make more profit from our hogs. Book farming is getting in better repute every day, we are glad to say.

The Big Thing

THE sculptor takes a rough block of marble and by inspired labor, fashions out a beautiful piece of statuary. This is called genius. He creates something that represents an ideal. This idea first existed in his own imagination. The composer and author are also creators.

The live stock breeder takes his raw material, his living, breathing subjects, animals, and by careful mating, selecting and developing, changes them to conform to his ideal; but, he, too, must have that ideal before he begins. The inventor conceives first in his own mind a complicated machine that, when produced, accomplishes the work of many men. The engineer applies his genius to harnessing some of the forces of nature and creates vast power for man.

Who will say which of these is the greatest genius? Who can say which one most benefits mankind?

Mister Misses

I GUESS the Honorable Mr. Syckle is playing Put and Take somewhere, as he is not here in time to write his usual spasm of foolishness for your paper. So, naturally, I have to do it for him.

You know, Mr. Syckle is my husband, my life incumbent. I suppose to many of you he is considered quite a man of esteem. Well, be that as it may, I have to admit that he is a sort of specialist, and he is, I admit, quite proficient in his specialty—that of minding other people's business.

He must be proficient in this, for he spends much of his time in town where he displays, I am told, news gathering faculties which put the reporter to shame. In fact, I understand the reporter comes to him as fountain-head for such "personal" items as never appear in print, but are amazingly interesting. Because of his ability in this, I am always invited to such gatherings of women where things are sewn for the poor children whose parents do not know how to live as we do in civilized America.

In the last issue, Hy said that he really did think once in a while, that is, if I let him. I admit he is a thinker. That's about all he does, is think. He thinks about things longer than anybody I ever knew, before he does it, and then most of the time he decides not to do it.

Every time I have to write this, I swear that I won't devote any space to Hy, but rather to some worth while public question, such as "Should a Woman Cook What a Man Wants, or Should a Man Eat What a Woman Cooks?" I think worthy subjects are better for discussion than men. The fact is, that every time I look at Hy, I absolutely lose all my faith in the rib theory of woman's origin. I think science will prove in time that man is accessory to woman, for is not man born of woman. And is he not like the rooster who struts around and does nothing but crow? It has been proven that hens work just as well when the roosters are not around, and, in fact, are much more contented. Is this not so among humans: are not men the chief cause of discontent among women?

SOPHIE ABIGAIL SYCKLE.



The Farm Vegetable Garden

A Good Source of Profit and Health

By Geo. E. Starr

Vegetable Specialist at M. A. C.

It has been well stated that life on a farm may be considered from two different standpoints. First, as a gainful occupation, a money making vocation, and second, as a manner of living. In other words, many people are living on farms not so much for the sake of gain, but for the reason that they like the farm life, and enjoy the country surroundings.

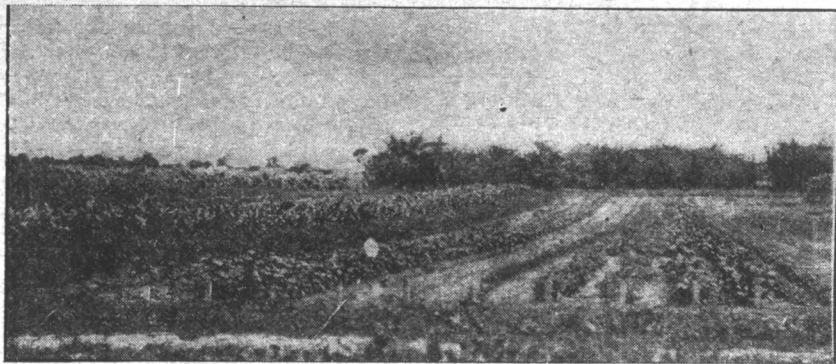
It is not the purpose of this article to discuss the advantages of country versus city, but to point out to the man who is already sold to the idea of living on a farm, some of the means by which farm life may be made still more pleasant, healthful and attractive.

There is no one thing which adds more to the health of the family, and which tends to make life on a farm

Another mistake is made in not planning the work properly. The garden crops have just as definite a value as the main farm crops and should receive equal attention. The work should be made a part of the regular farm routine, carried on during the regular working hours, rather than leaving it to be done in odd moments.

To get the greatest good from the garden it should be located near the house. Not so that all the labor may be left to the women folks, but so that the housewife may have quick access to the vegetables when preparing a meal instead of depending upon the man of the house to bring up some vegetables if he remembers to do so.

As we have previously stated, there is much economy in labor to be gained by having a well thought-out garden



The M. A. C. Gardens in which Mr. Starr's Test Plots Are.

more worth living, than a well planned and carefully tended vegetable garden. It would not seem that it were necessary to suggest this to a farmer, but a day's drive through almost any agricultural section of this state will show that a first class garden is the exception rather than the rule on the average farm.

There are a number of reasons, excuses if you will, why this may be true. Some of us will plead lack of time. Others will maintain that it is cheaper to buy the necessary vegetables than it is to raise them, while still others have neglected to inform themselves as to the value of the daily use of vegetables in maintaining the health of the adults, and promoting a strong, vigorous, well-balanced growth in the younger members of the family.

To the first group, I would say that a well planned garden may be cared for with great economy of time and labor. The second group, regardless of the correctness of their theory regarding cost, seldom purchase an adequate supply, and the family is usually forced to do without. In many communities, it is not always possible to procure fresh vegetables from the store, and when it is possible, they are often inferior in quality compared with what might be grown in a home garden.

All things considered, it is pretty safe to say that no plot of ground on the farm, of equal area, will produce as much value in dollars and cents as a well tended garden. It will go far to reduce the living expenses of the family, and in addition there may be considerable income derived through the sale of surplus products.

There are a number of mistakes frequently made which have a tendency to reduce the value of a garden. The first one is in making a plan which covers too large an area. It may be that when the first warm days of springtime arrive, in the first flush of enthusiasm we will plan a larger garden than we can properly care for. In course of time the rush of farm work comes on, the weeds in the garden get the start of the vegetables, and we despair of trying to clean them out, and let the whole thing go.

plan. This should be drawn on a good grade of paper so that it may be filed for future reference. A well drained plot should be selected, as near to the house as possible, and if it has a southern slope, so much the better. The dimensions of this plot may be ascertained, and the plan may thus be drawn to scale.

First of all, one should decide upon just what vegetables are to be included. It is not necessary to plant everything one finds in a seed catalogue, but rather make a choice of the kinds that the members of the family like best. Call the family into consultation, and make them all feel that they have a share in the garden.

As far as is possible lay out the rows of suitable width so that much of the cultivation may be done with horse drawn tools. Use every means to eliminate hand work. If this is done, it will be no hardship to come up from the field an hour earlier on one day of each week and run through the garden while the horse is still hitched to the cultivator.

Leave a generous space at one side of the garden for the perennials, rhubarb, asparagus, and some of the savory herbs. Next to these may be planted the berries and small fruits, then may come the annuals.

It is quite likely that, when once the garden plot has been located, it will not be changed for a number of years. In order to provide for proper rotation, a certain portion should be seeded to clover each year. It is not advisable from the standpoints of maintaining soil fertility, and controlling insects and plant diseases that any one crop be planted twice in succession in the same place. By referring each year to the plan of the preceding year, these changes may be provided for.

It is a good plan to lay in a supply of labor-saving garden tools. A hand seed drill, and a wheel hoe are almost necessities. A good steel rake is one of the best tools for killing weeds in the seedling stage. A stout garden line will aid in laying out straight rows, and there is nothing more important in assisting to quick, clean cultivation than to have the rows per-

(Continued on page 316).



No. 630—Men's Tan Sampson, Welt, Single Oak Sole, Plain Toe, Leather Counter, Grain Gusset, Rubber Heel, Proudfoot Last.

*The
Work Shoe
with the
Dress Shoe
Finish*

WHERE only wearing qualities were once demanded for shoes used upon the farm, now good looks, too, are found in the same shoes. For Thorogood Shoes have successfully combined the two — good wear, good looks; adding good looks to an already famous wearing quality.

Skilled shoe designers have produced a line of Thorogoods for men and boys, which meet every farm condition, no matter what the requirements are in soil or weather. Soles of toughest top grade oak leather are used. Soft double tanned uppers of high grade leathers, made more pliable and better looking with two final oil dressings. Double stitched and re-inforced where the most wear comes, a Thorogood Shoe is known as "the work shoe with the dress shoe finish".

Next time you're in town look up the Thorogood Shoe dealer and find just the pair you've been looking for—strong enough for everyday—dressy enough for town. Yet they cost no more than ordinary shoes.

Thorogood Shoes for men and boys are manufactured by
ALBERT H. WEINBRENNER CO.
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SHOES



666—Men's Choc. Elk, Seamless Bal., Welt, Composition Sole, Rubber Heel, Munson Last.



742—Men's Tan Sampson, Half Double Oak Sole, Nailed, Soft Toe, Full Vamp, Leather Counter, Grain Insole, Munson Last.



929—Boys' Brown Elk, Single Oak Sole, Welt, Soft Toe, Moccasin Vamp, Grain Insole, Rubber Heel, Munson Last.

for stock feeding

"Loose salt with rations regularly—in addition, keep it before all of your stock all the time"



Guard against the danger of "not enough salt"

Even though you are feeding salt, there is danger of "undersalting." Each pinch of salt less than the animal needs takes just that much away from its normal health and from its profitable production.

The animal's health, like your own, depends on digestion. Food cannot be digested until it is broken down by the hydrochloric acid in the digestive juices of the stomach. Salt furnishes this supply of hydrochloric acid and it must be constantly renewed.

Authorities recommend the regular feeding of 1 pound of Colonial Special Farmer's Salt to each 100 pounds of dry feed. Keep another supply of this salt loose before stock always. They won't eat too much. The soft, porous flakes of Colonial Special Farmer's

Salt dissolve instantly. It is particularly adapted to feeding requirements. Does not burden digestion—is absolutely pure—mixes thoroughly with rations and won't harden. Won't cause animals to get sore tongues.

Follow sound advice and change to Colonial—feed the right way, regularly. Watch your animals improve and profits increase. Send for FREE booklet, "New Truth About Salt"—gives valuable information about use of salt on the farm. Send name and address for FREE copy.



"There is a difference"

The upper microphoto is of grains of ordinary salt. The lower is Colonial Special Farmer's Salt. Note the hard, cube-like structure of ordinary salt and the soft, porous, flake-like form of Colonial Special Farmer's Salt.

THE COLONIAL SALT CO., Dept. 15, AKRON, OHIO
Chicago Dallas Boston Buffalo Atlanta Pittsburgh

Colonial

Special Farmer's Salt

"There's a Colonial Salt for every purpose"

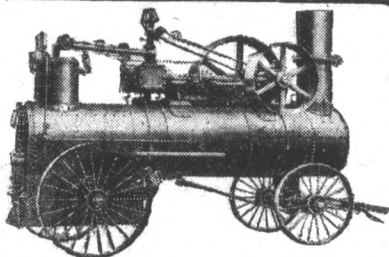
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If it is not the closest skimmer, easiest to turn and clean, and best guaranteed Separator for the least money, return at our expense and every cent received promptly refunded. Allowance made on old separators of any make.

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Farquhar Locomotive Rigs deliver strong, steady power. Dependable and economical. Easy steamers.

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Box 412, YORK, PA., U. S. A.

State Capitol News

Our Lansing Correspondent

FARM bills are receiving their share of attention in the legislature this session. One of the most important rural bills which has passed either branch to date is the measure sponsored by Representative John Espie, of Eagle, which prohibits bringing untested cattle into any county where the T. B. test has been carried out. The most important provision of the Espie bill is as follows:

"No cattle shall be imported into any county where bovine tuberculosis eradication has been adopted, unless the owner or the person lawfully in possession thereof shall submit to the commissioner of agriculture a proper certificate indicating that such cattle are from a herd tested under federal and state supervision and found free from tuberculosis, or have been subjected to an approved tuberculin test applied by an accredited veterinarian within sixty days prior thereto: Provided, cattle to be slaughtered within ten days may be imported into such counties without test upon condition that such cattle be kept separate and apart from other cattle until slaughtered. A conditional permit therefor shall be issued by the commissioner of agriculture."

Another important provision of this bill prevents anyone from receiving more for a condemned animal than it is really worth. A new clause added to the present law provides that the indemnity paid for any one animal shall not exceed the difference between the appraised value and the amount received for salvage.

THE senate is not taking very kindly to rural bills. For instance, when Senator Leland's bill to make the federal potato grades compulsory in Michigan came up for final passage in the senate it met unexpected opposition and finally after several senators had spoken against it, it was sent back to the senate committee on agriculture. This bill is being strongly urged by the Michigan Potato Growers' Exchange and has the support of the Michigan State Farm Bureau, the State Department of Agriculture, the Agricultural College authorities and several other influential groups. Leading potato growers of Michigan are sick and tired of having the reputation of Michigan potatoes spoiled by the practice of a few unscrupulous growers and dealers sending undesirable potatoes to market.

For many years Michigan potatoes have been discriminated against on the principal potato markets because they were practically ungraded, had all sizes mixed together and had a high percentage of hollow, ill-shaped, damaged and diseased tubers. During the past few years considerable progress has been made in improving the quality of the Michigan potatoes placed on the market and it is felt that if this bill could be passed, the product of Michigan potato fields would soon receive as favorable a price as is paid for potatoes from competing states.

ONE of the live issues in the house of representatives just now is the proposal to change the name of the Michigan Agricultural College. Representative MacKinnon, of Bay City, has been sponsoring a bill to call this institution the Michigan State College. However, when this measure came up for final passage in the house, it was referred back to the committee. It was evident that the bill could not be passed in the form in which it was presented. An effort is now being made to secure a compromise or amendment which will prove acceptable to a majority of the members. There is considerable talk just now of reporting out a bill providing for naming the East Lansing institution

the Michigan College of Agriculture, Engineering, Arts and Sciences.

BILLS of particular interest to hunters and sportsmen are being introduced in quantities. One of them by Senator Norman B. Horton, of Fruit Ridge, would prohibit hunting by any person, who had not first obtained permission, on any occupied land. This question of unwelcome hunters invading farm property is becoming a very serious matter, especially in the southern part of the state and in communities near large cities. The whole situation was thoroughly discussed at the last meeting of the Michigan State Grange held at Petoskey, and Senator Horton's bill is in harmony with the recommendations adopted by the grangers.

Representative Harold H. Smedley, of Grand Rapids, proposes to put an end to the spearing of fish in Michigan. He not only has introduced a bill making it illegal to spear fish in this state, but has also introduced a companion measure which forbids the sale or exchange of any kind of fish spears in Michigan.

Feeling that the present system of paid state trappers is not producing satisfactory results in the control of wolves in the Upper Peninsula, Representative David F. Morrison, of Germfask, has introduced a bill providing for \$10 bounties on wolves over six months of age, and \$3.00 bounties on wolf whelps.

AMONG the many appropriations bills now pending there are two rather minor measures of especial interest to Michigan farmers. One is a bill by Representative David H. Brake, of Newaygo county, which would provide a fund of \$5,000 for research and field work in the eradication of diseases of bees. If this bill is passed no doubt the greater part of the fund will be used in an attempt to stamp out foul brood in Michigan.

An appropriation of \$100,000 a year for county fair premiums is proposed by Representative Denis G. Clancy, of Hillsdale. In the past, the state has aided county fairs to the extent of \$75,000 per year.

IN line with the popular sentiment that some changes are needed in the present primary election law, Representative Charles Evans, of Tipton, is sponsoring a bill providing for party enrollment and for pre-primary conventions. If this bill were passed, a pre-primary convention would be held before each primary election. The choice of this convention would automatically have his name go on the primary ballot. Any faction which was dissatisfied with the outcome of the convention could place the name of their favorite candidate on the ballot by petition, as is done at present.

Representative Ate Dykstra, of Grand Rapids, proposes that no candidate for state or county office should be declared the nominee of his political party unless he shall receive a majority of the votes cast at the primary. In case no candidate receives a majority, the two candidates who receive the highest number of votes would run at a second primary election which would be held one week after the first primary. The purpose of this bill is to prevent a candidate running as the choice of his party when he is in reality favored by only a minority group.

Patrick McDoogie's kind gentle bull, Imperial King Butterboy De Hardkol, butted him down in the barnyard yesterday. The hired man massaged De Hardkol on the nose with a two by four of hardwood and averted a tragedy.—Sunshine Hollow.

REPAIR TOOLS ON THE FARM.

"Man without tools he is nothing, with tools he is all."—Carlyle.

FORTY years of observation leads me to believe that the average farm is poorly equipped with repair tools. Not as much as a good sharp axe can be found on some farms. If I could have but one tool I would choose the axe. The first tool used by man was an axe made of stone, it is the fundamental tool.

In grandfather's day, a set of farm implements consisted of plow, spike-tooth-drag, wagon, harness, and a few hand-tools, as rakes, forks, hoes, and scythes. So about the only repair tools required were an axe, monkey-wrench, jack-knife, a chisel, a brace and bits.

The cotton planter's farm implement equipment was even more simple, for it included only a one-mule plow, part of a harness, and a hoe.

With the present-day implement equipment, which may include tractors, motor trucks, automobiles, wind-mills, gang-plows, disc-harrows, planters, drills, binders, huskers, and threshers; it stands one in hand to have good facilities for making quick and inexpensive repairs.

We all know of men who spend many a half-day every summer going to and from town and paying someone a dollar an hour on repair work, that they could do themselves at home in half the time that they spent on the road, if they had tools with which to do the work.

Tools most needed, are axe, pocket-knife, monkey-wrench, claw-hammer, hand saw, steel square, cold-chisel, files, screw-driver, wire pliers, punches, jack-plane, draw-shave, wood chisels, brace and bits, a grind-stone or emery wheel, two saw-horses, and a work-bench with vise attached.

The most useful and economical vise for farm use is a regular blacksmith's vise. Small cast-iron vises are too fragile to be of much use.

Outside of work-bench and saw-horses, which one can make for himself, the cost of the above mentioned tools is about \$25 at present Chicago prices. Six per cent interest on the above cost is \$1.50 per year. Saving of a half day in a busy season more than pays it.

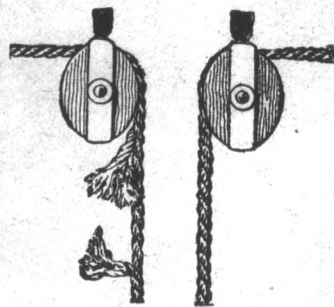
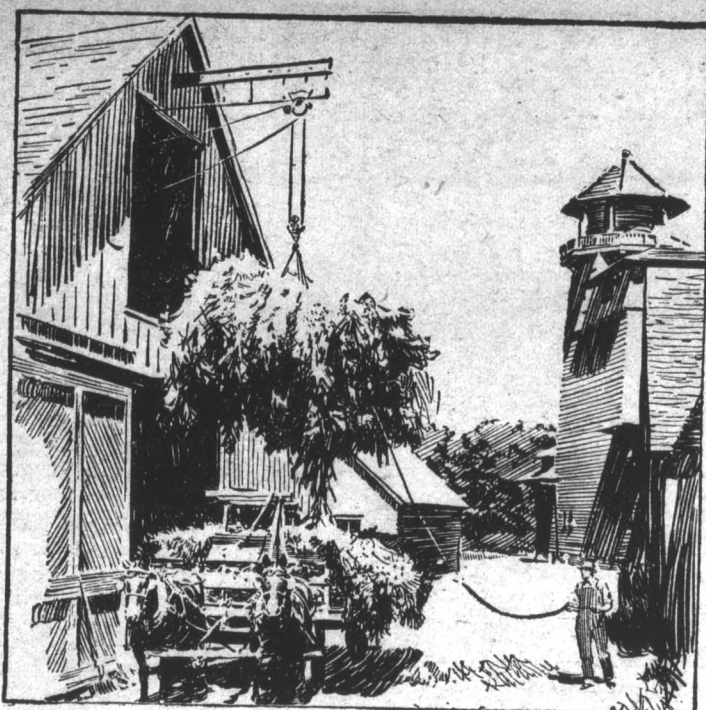
The more mechanically inclined farmer might add to the above list such tools as, forge, anvil, drill-press, hack-saw, pipe wrenches, jack-screws, taps and dies, spirit level, trowels, soldering outfit, and cobbler's outfit.

A certain amount of raw materials for repair work is as essential as tools. Inch boards, 2x4, 4x4, 2x6 and 2x8 scantling are of frequent use. Nails, from carpet tacks to six-inch spikes, but mostly 8d. size. Screws, rivets, bolts, nuts, washers, wire and hoop-iron. Paints, linseed oil, turpentine, putty and glue.

Farmers need to bear in mind that city wages are excessively high when compared with his own, so that it is good business on his part to do his own repair work in so far as possible, so that he may retain those high wages for himself. Farmers are obtaining fair prices for their products, but have to pay too much for what they buy.—A. N. Clark.



"Time the Harness Was Oiled."



Two ropes bought at the same time, used just alike. One is ruined; the other—H. & A. "Blue Heart" Manila—is still strong. It pays to buy really good rope

The test of your money's worth in rope

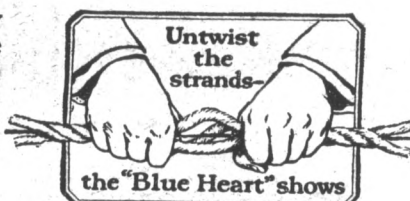
After all, it's service you pay for when you buy a rope. The amount of hay that rope will put in the barn, the other jobs it will do around the farm; that is the real test of your money's worth.

And that is why it always pays to buy the highest grade you can find—rope that will wear unusually long.

Thrifty farmers know that it is poor economy to buy inferior rope. They know that when such a rope fails on the job, it becomes an expensive economy.

Make sure of getting really good rope for your haying this year—before you buy.

Untwist the strands. If you find a thin blue thread marker—the "Blue Heart"—running



Untwist the strands—the "Blue Heart" shows in the center between the strands, then you may be sure of these facts.

What the "Blue Heart" signifies

The "Blue Heart" marker means that the rope is genuine H. & A. "Blue Heart" Manila spun from high-grade, pure selected manila fibre by rope makers with over half a century's accumulated experience.

It means also that in any size, on any job, the rope will wear longer and deliver without fail the strength you have

a right to expect. For the selected fibres of H. & A. "Blue Heart" Manila Rope are drawn, spun, laid and properly lubricated so as to insure the smooth working of every fibre, yarn and strand.

Buy rope scientifically. Know beforehand what you are getting. Untwist the strands and look for the "Blue Heart"—our registered trade mark that assures you of dependable rope value.

Guarantee

H. & A. "Blue Heart" Manila Rope is guaranteed to equal in both yardage and tensile strength the specifications of the U. S. Government Bureau of Standards.

The Hooven & Allison Company
"Spinners of fine cordage since 1869"
Xenia, Ohio

For sisal rope

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

H. & A. "Star Brand" Binder Twine

evenly spun from carefully selected fibres, is of full yardage, and has ample strength for binding purposes



H & A "Blue Heart" Manila Rope

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Trade Mark Reg. U. S. Pat. Office

Special Offer!

This coupon with 30c will entitle you to our special Halter Lead made from H. & A. "Blue Heart" Manila Rope. It is 1/2 inch in diameter, 7 feet long, and is fitted with a snap at one end. It is offered to introduce to you the great strength and wonderful wear-

ing qualities of H. & A. "Blue Heart" Manila Rope.

If your dealer does not carry H. & A. "Blue Heart" and cannot supply you with this special Halter Lead, fill out the coupon and mail it to us with 30c, coin or stamps, and your dealer's name. A Halter Lead will be sent you prepaid at once.

The Hooven & Allison Company, Xenia, Ohio

Enclosed is 30c for which please send me one H. & A. "Blue Heart" Manila Halter Lead.

My Name

Address

My Dealer's Name

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COSTS LESS TO BUILD

Have permanent buildings of Glazed Tile. The first cost is no more and the tremendous saving in paint, repairs and upkeep is all in favor of

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GLAZED TILE BUILDINGS

Solve the building problem for all time with beautiful, everlasting tile. Suitable for homes, barns, hog and hen houses, garages—any building. Estimates Free. WRITE FOR FREE BOOK on permanent farm buildings, including our Tile and Wood Silos.

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SAVE MONEY IN CLOVER

Our prices are \$2.00 to \$3.00 lower than most dealers. Write us today for free samples of Highest Grade Home Grown Seed. Our price is surprisingly low. Get our samples and prices on Alfalfa, Sweet Clover, Timothy and all Seeds. We can save you big money on your seed bill. Write for free samples, special prices and 62 page catalog.

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New Improved Martin Farm Ditcher and Field Terracer. Turns water-soaked and washed acres into producing land. All steel. Adjustable, reversible. Does work of 100 men. Open Drainage, tiling, irrigation, terracing, road grading. Low prices liberal terms. Send for free book.

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10 Days Trial

COAL in carload lots at attractive prices. Farmer agents wanted. Theo. Burt & Sons, Meigs, Ohio

Guaranteed Steel Barn Columns at 25 Percent Under the Market Price

Build a better barn at lesser cost. Use Dur-econ tubular steel barn columns. They are stronger, more durable, absolutely fire-proof. Furnished in 7, 7 1/2 and 8 foot lengths, 4 inch diameter, complete with flanges. Special sizes if desired. Ready to install. By ordering now you save 25%.

WAUKESHA STEEL PRODUCTS COMPANY
Dept. 4 Waukesha, Wis.



Power—And Lots of It

Your power plant sets a definite limit on your production and profit.

The improved Case tractor, with its remarkable power output, gives you many opportunities to increase your farming capacity. In a compact unit that one man can handle you have power—and lots of it—to farm more land; to raise bigger and better crops; to give you better seed beds; to do your field and belt work on time.

To enjoy these advantages to the utmost, use a Case tractor. In addition to greater power, its durability and rugged strength gives you more years of better work, plus the satisfaction of using a machine that is always ready any time, for any job.

Before you buy any tractor, no matter how well presented, find out what the greater power of a Case tractor means to you in greater usefulness and longer life per dollar invested. Get the facts from any Case dealer or salesman.

J. I. Case Threshing Machine Company

Established 1842

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AND IN FOREIGN COUNTRIES

NOTE: Our plows and harrows are NOT the Case plows and harrows made by The J. I. Case Plow Works Co.

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For your door-bells, buzzers, electric toys and general gas engine ignition, insist on Burgess No. 6 Batteries. They are designed with high amperage especially for this service and their shelf life is unsurpassed.

Sold at electrical, hardware, accessory shops, garages and general stores. Insist upon Burgess.

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BURGESS BATTERIES

Ionia's Big Round-up

An Armory Packed with Farm Folks who Listened to an Outstanding Program, Rich in Information and Suggestions

I ONIA outdid herself this year. The big mid-winter farm festival held there on February 19 set a new record for attendance and quality of program for county farm gatherings. Fine leadership and a wonderful exhibition of cooperation between business men and farmers, appear to be responsible for the success. Might we say that the meeting seemed a bit prophetic by giving a taste of what we might expect in the future when all classes in a community work together for the good of the community.

Marketing Expert Speaks.

"Everybody tries to teach the farmer all the good things about products and production, but they forget to teach him how to take these same products and turn them into enough money to buy a decent standard of living for his farm home. Cooperative marketing does this very thing. It tries to teach the farmer, by his own effort, to turn his products into good money."

In these words, Aaron Sapiro, lawyer, and a foremost exponent of cooperative marketing, opened his forenoon address to a packed house, consisting of over a thousand farm folks. He continued, "The farmer is the only class who throws his products on the market without trying to adjust the supply to the existing demand at that time and place. As long as he sells individually, he merely dumps. But, if farmers sell together, then they can merchandise the crop and control the flow so as to adjust it to demand. In this way only can the farmer hope to get a decent price for the supply that actually goes into the channels of trade."

To properly merchandise farm crops there are, according to Mr. Sapiro, six necessary steps to be taken. These steps are:

1. Grade and standardize the commodity. He cited how the California egg producers put their product across in spite of handicaps, by proper grading and standardizing.
2. Pack according to approved standards. Both grading and packing must be stressed before Michigan fruit growers will ever get a decent price for the fruit raised on their farms.
3. Extend the market, both in time and in place. We should know what markets can consume the products grown, and then get the people of those markets to actually consume.
4. If people ought to eat more of the products under consideration, then through lectures in schools and before women's clubs, by posters, recipe books and, especially, by advertising, a larger consumption should be promoted.
5. The flow of the supply of products into the channels of trade should be controlled by storage and finance. By this means gluts are avoided and the people have a much longer period in which to consume the products.
6. The last step given by Mr. Sapiro was to make the price depend upon the supply at the point of consumption and not at the point of production.

"These six points form the story of merchandising," said the speaker. "Not one of the points can be worked out by the farmer alone. He must join with other farmers and organize along commodity lines, and then go out and merchandise. The manner in which this organization can be affected is the technique of cooperative marketing."

To bring into being an efficient cooperative institution, "we must know the nature of the crop to be marketed, whether it is perishable or non-perishable; whether it grows once a year, or twice a year, or is constantly being produced; know the nature of the people who produce it, and thoroughly study the commodity itself before suitable plans for its merchandizing can be worked out." But, he continued,

"no matter what the commodity, no matter where it is located, no matter who is growing it, there is no crop in America that can be marketed in better fashion than it is now done."

"There is something fine back of this effort of cooperative marketing. By your own efforts you are going to have the chance to build up life and make it a richer and finer one for the farm boys and girls that are going to grow up after you in the farm homes of America."

Dr. Butterfield Urges Marketing Studies.

When farmers consumed the products of their own fields and stables, they understood minutely the quality of crops and animals that best met their needs. All the various requirements from planting to consumption was directly under their eyes. In other words, these men, of a time when the farm was nearly self-sufficient, were definitely informed on the marketing end.

Today, it is different, said Dr. Butterfield, in opening the afternoon session. While we have shifted from growing the things a farm family needs to the production of surpluses to sell for money with which to buy our needs, we have not shifted our business to fully meet the new conditions.

In growing surpluses we have lost sight of the consumer's tastes. Our effort has been to make those surpluses as large as possible. We have watched production only, and have forgotten to inform ourselves of the consumer's wishes or fancies. This is our next big problem—studying marketing.

The Agricultural College has a three-fold duty to perform in this connection. It must investigate to learn what the consumer wants, then introduce this knowledge to the class room of the college through the college faculty, and again to the state as a whole through its extension force.

The foundational work is investigational. Reliable data on marketing is needed. The Doctor expressed the hope that soon a complete survey of the virtualizing of some city of 50,000 or 75,000 population would be made to learn the wants of the people of such a municipality. With this information it would become possible for the farmers in a reasonable radius to calculate better what part of the needs of the city could be supplied by the local farms. Such a study is bound to be advantageous to both the farmer and to the city consumers. It should build dependable markets that could pay producers a reasonable price for their products and also give the consumers the best products at the lowest cost.

This investigation should also lead to better community living. All classes should participate—farmers, business men, bankers, wage earners should undertake a community program that comprehends every family. A fair reward for labor is only a means to an end. There can be no permanency to agriculture unless the rewards to agriculture are satisfactory. When Denmark was poor she started the agricultural high schools, which later became the back-bone of her cooperative success. These schools were not merely vocational but highly cultural—art, literature, music being important parts of their curricula.

Class-room instruction work, the second object of the college, is obvious, and needs no consideration, said the President. But the third function, that of making the state of Michigan one of the class-rooms of the institution, is another matter. Providing continuous education is the big job. He states that reliable figures show 100,000 farm boys and girls between the ages of

(Continued on page 318).

POWER USED ON FARMS.

APPROXIMATELY sixteen billion horsepower hours of power were utilized on farms in the United States during 1924. This is equivalent to the labor of half a billion human beings. Yet less than ten million agricultural workers aided by this power accomplished the same quantity of work, said C. B. Kinsman, agricultural engineer, speaking on the effect of traction and electric power on farming in relation to man power and production.

During the past seventy-five years the amount of power used by agriculture in the United States has trebled and during the same period the proportion of agricultural workers to all workers has been reduced from sixty-five per cent to less than twenty-five per cent. Yet the value of agricultural produce per capita has remained practically the same.

Mr. Kinsman figures that of the sixteen billion horsepower hours of power utilized on farms in 1924, approximately 16.5 per cent was furnished by tractors and 6.5 per cent by electric power.



Dairymen are generally agreed that the present is a most opportune time to weed out inferior cows and introduce more efficient producers.

THE DEPARTMENT'S COOPERATIVE MARKETING HELPS.

THE department of agriculture, according to Mr. Tenney, only spends \$40,000 directly for that part of its marketing projects which have to do with helping cooperative marketing associations. This \$40,000 is divided between three lines of work:

Making economic surveys.

Sending out experts to audit the books of cooperatives, when asked to do so by the cooperative associations.

The study of successful cooperative marketing systems in other countries.

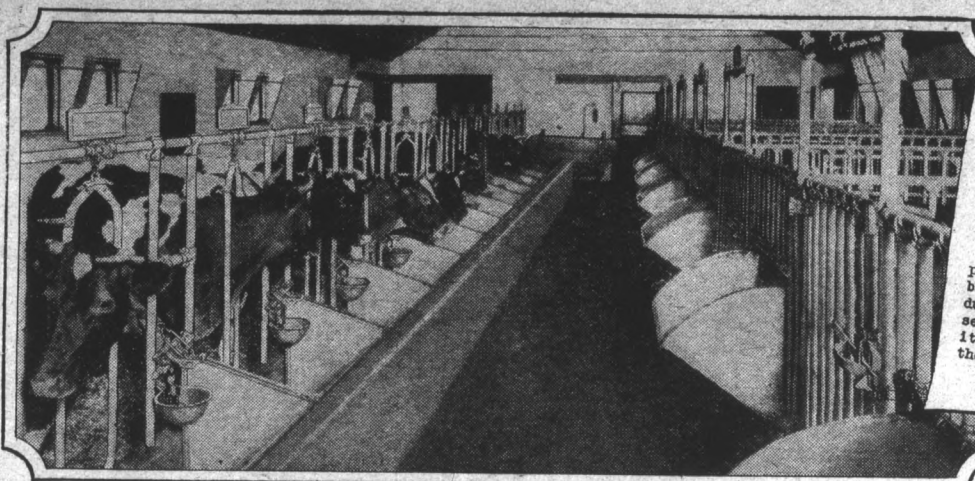
In the bureau of agricultural economics there is a statistical division in which the bureau keeps in touch with all cooperatives in the country, including records of their organization, the methods of management, amount of business transacted, both buying and selling, failures and their causes. The bureau now has records of over ten thousand cooperatives.

A legal service is maintained in which have been made studies and digests of all state laws and court decisions having reference to cooperative buying and selling.

For the \$40,000 the department has been able to take care of the demands from cooperatives for government assistance.

Mr. Tenney said the present need of the department of agriculture was the securing of marketing specialists trained along commodity lines. The sum of \$150,000 provided for the next fiscal year would be ample for the work required in advising cooperatives, and in sending the commodity experts out to "sell" to farmers utilization of the department's cooperative marketing service.

There are some men that simply can't be persuaded to go calling, and are always too busy to attend a party or social gathering of any kind because they can't possibly leave the farm. But when the Dairy Show or the International come along they can spare an awful lot of time, and the farm doesn't seem to need them at all.



Winters Farms,
Albany, N. Y.
Jan. 18th, 1923

Louden,
Fairfield, Iowa

Gentlemen:
I have had experience with many kinds of stalls, stanchions and other barn equipment during the past 20 years.

I believe this is the most practical, simplest and finest barn I ever built for the production of certified milk and I selected Louden Equipment for it because I am convinced it is the best.

Sincerely yours,
Harry B. Winters



WM. LOUDEN

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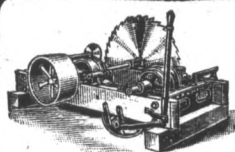
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Grower's Opinion on Grades

Are Fruit Grades Beneficial?

By Edward Hutchins

MICHIGAN apple growers are engaged in a most commendable undertaking in their efforts to standardize their pack and have made gratifying progress, but the acid test of experience has shown the necessity of some changes and simplifying. The importance of some revision clearly appears in the most excellent contribution of Mr. Essinger, of the Michigan State Department of Agriculture in the Michigan Farmer recently.

Grading Laws Essential.

Beyond question, grading laws are essential. We owe it to the buyers and consumers as well as to the growers themselves that the fruit be put on the market in a reliable and honorable way, so that those who buy and use the apples shall know what they are buying and get what they buy. Under the present rather complicated system of grading in Michigan a considerable quantity of good, merchantable fruit that is marketed in other states, and that people are glad to buy and use, is thrown into the cider class where it has little value, and, what is still more serious, disputes arise between growers and inspectors regarding the application of the grading laws.

Mr. Essinger says truly that there are seven grades in our apple law, and this is too many. Two grades, he says, that are understandable are sufficient for interstate commercial package shipments. As a matter of fact, that is practically about all we now have. The cooperative packing houses may undertake to make more, but they put up only a comparatively small part of the apples picked, and many very good growers because of the inquisitiveness of the inspectors of which they are apprehensive, hesitate to put any mark on the apples which has any definite meaning, and brand them "Unclassified" or "Orchard Run." Either of these marks may cover a very good lot of mixed grades or a very poor lot, and gets us nowhere in establishing a reputation for our fruit.

Michigan Custom.

In the larger part of the apple-growing districts of Michigan probably the apples are sold for the most part to buyers by the growers, and only a small proportion of the fruit is expected to grade "Fancy." Most are sold on a basis of "A" and "B" grades and the first may include the fancies. Buyers refuse to buy anything below these two grades at a price that allows enough to cover costs of packing and barrels, so a considerable quantity of fruit which the grading regulations place in Class "C" are discarded and go into the ciders. The buyers do not object to this condition of affairs, but the growers are not enthusiastic over it. But it is the law. Some buyers who supply a market in smaller towns are willing to take the fruit as it comes from the trees with the cider out, especially if the apples run pretty fair, and such a deal is one that under the present conditions growers are glad to make. In this way a grade goes in that would be thrown out if marked above the "C" grade. Such stock can be marked "Orchard Run" and avoid any possible conflict with the inspector.

It has been my lot of late to spend the winters in the Nation's Capital and I have been interested in the condition of the local apple market here. Right at the present time in some of the grocery stores, apples that would grade "C" under Michigan regulations, those of fair size and good color and appearance, save that they are somewhat scabby, are selling at ten cents per pound. Across the street are similar apples with clean skins but slightly smaller selling at three pounds for twenty-eight cents. Both of these stores are selling New York Imperials,

smaller in size and with less color, at five cents per pound. In other words, people are taking apples that Michigan places in a fourth grade along with those that we grade as "Fancy" or "B," without discrimination and paying \$4.50 or more per bushel for them. A few brown spots in the skin which in no way affect the quality of the apples make little difference in their selling value among these consumers. And no doubt they are as discriminating as most people in such matters.

Must Be Practical.

It is the part of wisdom to be practical in these things. The usual dope we are treated to is to put up only the very finest grades, a sort of superfine quality, and rule the western box apples as well as everything in the east and south out of our markets. Some go so far as to advise keeping all of the lower grades at home or putting them in the cider class, but as a practical matter of fact, is this wise or feasible? Is it philanthropic? As long as people in such a market as I have described want them and use them without discrimination, and as long as so many of the growers, both at home and in other states, are disposed to put them on the market, is there not more of theory than of practical good sense in such advice?

A speaker at the recent meeting of the Michigan State Horticultural Society in Grand Rapids who runs a line of restaurants outlined the class of apples he requires for baking, and the growers were given to understand that if they want his patronage they must be prepared to meet his requirements. From press comments he evidently made quite a hit. But how large a hole does the baked apple proposition make in the supply of apples? Few hotels or restaurants have baked apples on their tables, but all of them have apple pies regularly. And the lower grades make quite as good pies as the fancy grades, and shrewd caterers fully understand this. And it is interesting to note as well that fresh apples found on the tables of very many first-class hotels and restaurants are of the lower grades, many of them no better than those that growers are compelled to put in the ciders when attempting to make standard grades of their fruit.

Few Grades Best.

Mr. Essinger says, "We could get along with a total of four, 'Fancy,' 'A,' 'B' and 'C' grades. And we can get along still better with three. He has already said that two are enough in interstate shipments. Two grades are certainly sufficient for clean apples, and why make two grades of the scabby stuff? It may appear distinguished to talk about putting the western and eastern and southern apples out of our markets by a system of grading, but we have been listening to this for several years and it is getting to be old stuff, but still those sections are shipping to our markets. And as long as competing states all about us are ready to put their low grade and scabby stuff into our markets and our consumers are willing to buy it and use it, what is the sense in our throwing our fruit away? Fruit that is perfectly good in every way save that it has a few spots that only go skin deep?

Our grading law provides for marketing these scabby apples, but by separating them into two grades it allows the buyers an advantage in ruling them out, and, further, it is the cause of the greater part of the friction between the inspectors and growers. By reducing the number of grades in this way the matter of grading would be simplified and there would be less incentive to dump all grades together and use "Unclassified" or "Orchard Run" marks.

Mention the Michigan Farmer When Writing to Advertisers



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IDAHO GRIMM ALFALFA SEED GROWERS ASSOCIATION
BLACKFOOT, IDAHO

GRIMM ALFALFA SEED

Early Potatoes

(Continued from page 305).

to the Colorado Potato Beetle as an enemy of the potato, and, probably on the early potatoes it is more injurious. The potato flea beetle is a very small insect, one-sixteenth to one-twelfth of an inch in length, black, and has the power to jump considerable distances. On approach it disappears so that a casual observer will not discover it until his attention has been called to the insect. The flea beetle passes the winter in rubbish, appears in the spring as soon as the weather warms up and the foliage of trees begins to appear. As soon as the potatoes are through the ground they are subject to the attack of this insect. These beetles that hibernate, feed ravenously until their eggs have been laid, then gradually decrease in numbers. For this reason, we notice them in greatest abundance early in the season. The injury not only means loss of leaf surface for the manufacturer of starch, but also serves as a point of infection for early blight injury.

The control of the potato beetle is best held in check by keeping the plants well covered with Bordeaux mixture. Frequent and thorough spraying with this material makes the plants distasteful to the beetles and protects it also from early blight fungus. The Bordeaux mixture should be applied as soon as there is evidence that the leaves are being affected and should continue to be covered through the season so that the leaf hopper that appears along in June will be prevented from making any inroads on the plants and allow them to go to maturity with very little insect injury.

The Potato Beetle.

A preparation of Kedzie mixture, calcium arsenate, or some other arsenical in combination with Bordeaux proves efficient in repelling the Colorado potato beetle and may be of some value in the potato flea beetle control. It is believed that the flea beetle either eats so little of the poison or avoids it entirely to make the application of arsenicals alone of little value for the control of flea beetles. However, the combination of Bordeaux mixture and poison has proven very efficient. A high pressure sprayer with attachments to apply the Bordeaux preparation on all parts of the plant at a pressure of from 175 to 200 pounds is going to be essential to successful growing of early potatoes in the southern part of the state. The variety of potatoes planted may assist some but cannot be depended upon to guarantee a crop.

Leaf Hopper Toll Heavy.

The injury caused by the leaf hopper is probably greater than that caused by the flea beetle but because the flea beetle comes early in the season during the critical period of the plant's development we have made special mention of its control and the leaf hopper may later cause complete loss of the crop, and control measures are as important as for any other insect affecting the potato.

Trouble called blight by many growers in the southern part of the state is undoubtedly caused principally by injury resulting from the work of the leaf hoppers. It is stated that early varieties in general are more susceptible than late varieties. The best control measures are by the frequent application of Bordeaux mixture of 4-4-50 strength. For efficient control it is necessary to begin the spraying program while the vines are three to six inches high and to maintain a pressure of from 175 to 200 pounds with spraying machine equipped with a boom so that two nozzles direct the spray toward the under part of the leaf and the third nozzle sprays the tops. The leaf hopper feeds on the underpart of the leaf and it is important that this part of the vine be well covered with Bordeaux.

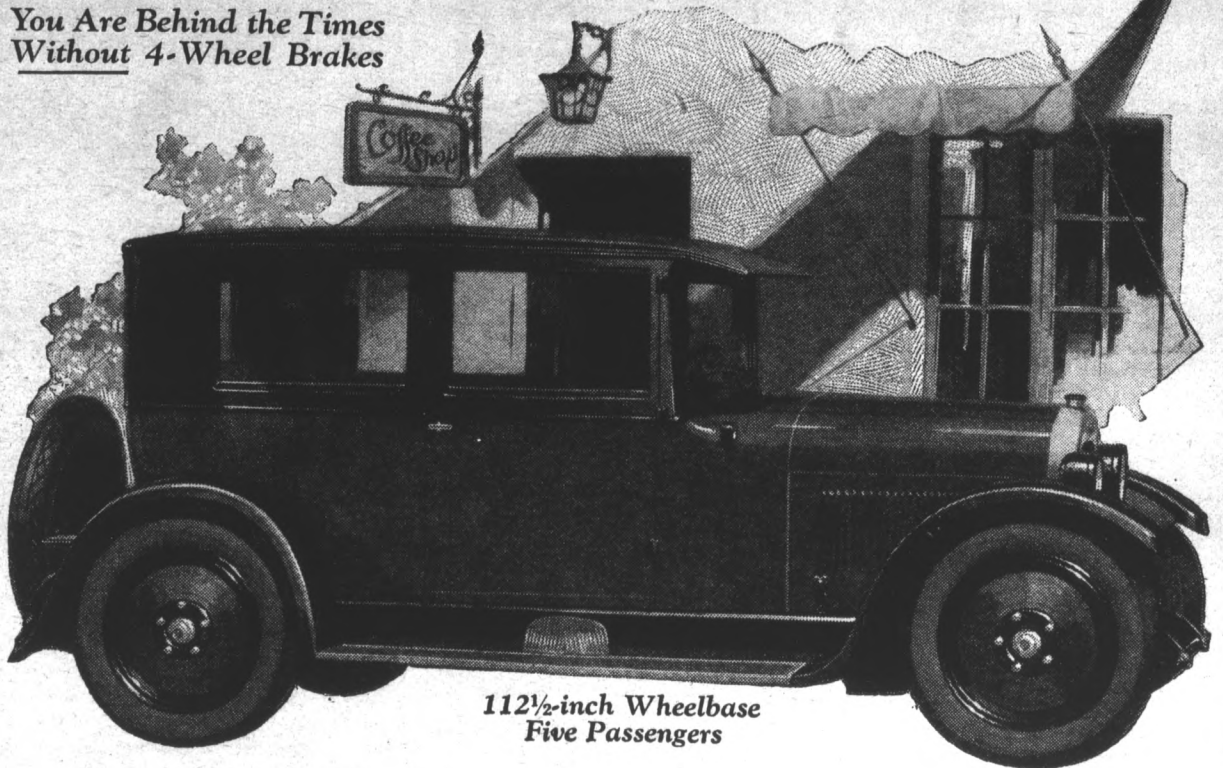
Early Blight.

This disease causes loss because it

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prevents a crop of potatoes from becoming the maximum the soil is capable of returning. In years when early blight is prevalent the disease may reduce yields as much as twenty-five per cent. Late blight destroys a crop of tubers already produced, while early blight cuts down the possible size of the crop. This disease and hopper burn are largely responsible for the mediocre yields which come from seemingly well cared for fields.

Small (one-eighth to one-fourth inch in diameter), black spots are produced on the leaflets. These spots are more or less circular, except where two or more spots run together. Each spot represents a point of attack of the parasite and marks the place where a spore germinated and entered the leaf. As the fungus grows in the tissue, the cells of the leaf die and turn black. The drying effect of the fungus upon the leaf tissue is represented by lines forming concentric rings about the spot. The "target-board markings" are a means of determining the disease.

No direct rotting or marking is produced upon the tubers by this disease.

The tubers produced on diseased plants are smaller since the yield is reduced on account of the weakened leaves.

The fungus which causes the disease probably lives over winter on trash, etc., in the soil. It is probably widespread in every field where potatoes are grown and must be recognized as a pest sure to be met with if the season permits. Spores from the trash

finding a place on the leaves of the potato, germinate under wet conditions and cause the characteristic spots of the disease. On the diseased spot the fungus fruits profusely, producing the characteristic club-shaped spores of the fungus. These spores in turn are carried to fresh leaflets chiefly by wind and rain and thus from a few spots, countless points of infection result. This story is repeated over and over in the field so long as the weather relations favor infection. A spotted leaflet is weakened and sometimes turns yellow and dies.

The leaves of the potato are the manufacturing organs where starch is made and afterwards carried and stored in the tubers. Anything which interferes with the efficiency of these food-producing organs cuts down the yield of tubers.

The disease, while present in more or less abundance each year in Michigan, is most severe in years when the season is warm and with moderate rainfall. The most severe effects of this fungus in the last few years have come from late attacks in September, and such attacks have been most severe in fields growing on moist locations and in fields with heavy vine growth.

The main control measure consists of the thorough application of properly made Bordeaux mixture. Spray the plants every ten days or two weeks, beginning when the tops are three to six inches high. Everyone should spray when the first half of the growing season is cold and wet.

Grain Show Awards

1925 Exhibits a. M. A. C. Shows Superb Quality

THE fourteenth annual grain show of the Michigan Crop Improvement Association, held at the M. A. C., while being much smaller, both in number of exhibits and exhibitors than in former years, was the same quality show which has characterized it in the past. Members of the association were not able to select quite as good exhibits of corn as when more favorable weather conditions prevailed than did last year; but in general the grain, especially first place winners, was, indeed, of excellent quality.

The college exhibit, "Moving the Corn Belt Northward," was put up at one end of the room. This exhibit was the one which the college had at the International last December. It pointed out how the corn belt had been moved northward through the following practices:

1. Increased use of silage has made a demand for more corn.
2. In properly balanced rations corn comprises usually the cheapest and largest part of the concentrates.
3. Good cultural practices, tillage and care of the crop, has made it possible to secure good yields where it was formerly thought to be unprofitable to grow corn.
4. Selection of early varieties has made it possible to grow corn which can be depended upon to mature a crop each year.
5. Fall selection and proper storage of seed assures a good reliable seed corn.

Samples of several different adapted varieties of corn were on display. Rations for pigs, lambs, dairy cows, and horses were shown giving the amount of corn to feed daily along with the different amounts of supplements needed for the best results.

Following is a complete list of the winners in each class at the show:

Ten Ears of Yellow Dent.

First, Elmer Vaughan, Hanover; 2nd, Bruce Kerr, Clark Lake; 3rd, Farley Bros, Albion; 4th, W. A. Wortley, of Rushton.

Ten Ears of White Cap or Any Other Dent.

First, Ray Gilmore, Britton; 2nd, Amos Scherip, Britton; 3rd, H. Croll & Son, Britton.

Fifty Ears of Any Variety.

First, Milo Robinson, Union City; 2nd, John Nyenhuis, Hudsonville.

Ten Ears of Yellow Dent.

First, J. C. Wilk, St. Louis; 2nd, D. V. Bow, Saginaw, W. S.; 3rd, J. A. Wilk, Alma; 4th, Ted J. Wilk, Forest Hill.

Ten Ears of White Dent.

First, J. C. Wilk, St. Louis; 2nd, Ted J. Wilk, Forest Hill; 3rd, J. A. Wilk, Alma.

Ten Ears of White Cap or Any Other Dent.

First, J. C. Wilk, St. Louis; 2nd, J. A. Wilk, Alma.

Fifty Ears of Any Variety.

First, J. C. Wilk, St. Louis; 2nd, Ted J. Wilk, Forest Hill; 3rd, J. A. Wilk, Alma.

Sweepstakes—Ten Ears of Dent.

J. C. Wilk, St. Louis.

Single Ear of Dent.

First, Lester M. Campbell, Portland; 2nd, Elmer Vaughan, Hanover; 3rd, Fred Shilling, Coldwater; 4th, Milo Robinson, Union City.

Ten Ears of Golden Glow.

Mrs. Kate L. Remisch, Free Soil.
Ten Ears of M. A. C. Yellow Dent.
First, John Nejenhuis, Hudsonville; 2nd, F. H. Knox & Co., Portland; 3rd, G. H. Roe, Bay City.

Ten Ears of Pickett.

First, D. V. Bow, Saginaw W. S.; 2nd, Milo Robinson, Union City; 3rd, W. R. Kirk, Fairgrove.

Ten Ears of Duncan.

First, F. H. Knox & Co., Portland; 2nd, J. C. Wilk, St. Louis.

Four Quarts of Rye.

First, Vernold Gormley, Newberry; 2nd, M. J. Smith, Springport; 3rd, Ted J. Wilk, Forest Hill; 4th, Leo Wooden, Hanover.

Four Quarts of Soft Red Winter Wheat.

First, J. A. Wilk, Alma; 2nd, Ted J. Wilk, Forest Hill; 3rd, Chas. Konop, Ewen; 4th, O. B. Shoemaker, Coldwater.

Four Quarts Six-row White Spring Barley.

First, Fritz Mantey, Fairgrove; 2nd, Jesse Pickett, Caledonia; 3rd, J. C. Wilk, St. Louis; 4th, W. R. Kirk, Fairgrove.

Four Quarts White Winter Wheat.

First, J. A. Wilk, Alma; 2nd, J. C. Wilk, St. Louis; 3rd, D. V. Bow, Saginaw W. S.; 4th, D. E. Turner, Mosherville.

Four Quarts of Oats.

First, Jesse Pickett, Caledonia; 2nd, Ray L. Bow, Saginaw W. S.; 3rd, J. C. Wilk, St. Louis; 4th, Farley Brothers, Albion.

Four Quarts of White Pea Field Beans.

First, J. C. Wilk, St. Louis; 2nd, Peter Welch, St. Louis; 3rd, George and Louis Hutzler, South Mariton; 4th, R. V. Beardslee, Owosso.

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My regular full size packets of tested guaranteed seeds are nearly all reduced to 5 cents this year. Shrubs, bulbs, and flower seeds are also priced at a new low figure.

NEW CATALOG FULL OF SEED BARGAINS
If you haven't my new catalog, send for it right away. It isn't as fancy as usual because I used the extra cost to reduce prices, and it will save you money on every order you send. Order today from me and tell your neighbors that prices are lower and seeds are better at Henry Field's. I pay the postage and guarantee satisfaction or your money back.

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Listen in on my station KFNF. Always something on the program that pleases everyone.

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\$4.95 DOWN

BALANCE ON EASY TERMS
That Fit the Income From Your Cream Checks

90 DAYS' TRIAL
on your own farm before you decide to pay for it.

MADE IN 4 SIZES
From 375 lbs. to 950 lbs. Skimming Cap.

THE Galloway BEATS THE WORLD

FOR CLOSE SKIMMING
That is what you want in a cream separator. You want a separator that will save every drop of cream not once in a while, but morning and night year after year. Farmers operating Galloway Separators up to nine, eleven and even fifteen years write us like Mrs. E. E. Burgess, of Agra, Okla., "20 shipments brought me \$142.79. I have made more on my Galloway Sanitary than anyone around here with the same size herd." The low speed bowl with all discs separate and self-centering neck bearing that eliminates all vibrations make the Galloway Sanitary the closest skimming separator money can buy.

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Get Galloway MONEY-SAVING PRICES, many exclusive features of construction, easy terms and learn how you can test a Galloway on your own farm for 90 days before deciding to keep it.

The Galloway Company
Box 181, Waterloo, Iowa

"The Galloway Book Is Full of Surprises"
If you want to economize, save money and get the best Separator, Gas Engine, Spreader, Farm Equipment and Household Necessities that money can buy, write today for Galloway's 1925 Bargain Book. Galloway's plan of selling direct from factory to farm gives you lowest prices. Prompt SERVICE Assured.

Light Draft Spreaders

From 1-4 to 16 H.P.

Light Draft Spreaders

Fertilizer Hints

By O. B. Price

NOW is the time to consider the spring fertilizer needs on the farm. By placing your order now you will not only be cooperating with your dealer, but you are more likely to get the analysis you want.

When buying fertilizers consider the analysis of fertilizer rather than the brand. A particular analysis may be sold under many brand names. Just because a fertilizer is sold as a "Corn and Wheat Grower," or "Bean and Beet Special," etc., it is no indication that it is best for your particular soil condition. The Michigan Agricultural College is ready at all times to give information regarding the proper fertilization of crops on different types of soil.

Always insist on high analysis fertilizers. A high analysis fertilizer is one containing fourteen or more units of plant food. A low analysis fertilizer contains less than fourteen units. A 1-8-1, containing ten units of plant food, is a low analysis material. A 2-16-2 contains twenty units of plant food and is considered a high analysis fertilizer.

A high analysis fertilizer costs more per ton but less per unit of fertilizing material. Twenty units of plant food contained in one ton of 2-16-2 fertilizer costs \$40.30. Twenty units of plant food contained in two tons of a 1-8-1 fertilizer costs \$58.10. By using a 2-16-2 at half the rate of a 1-8-1, the same amount of plant food will be applied and \$17.80 saved on every ton of 2-16-2 used.

Fertilizers are profitable on most types of soil in Michigan. The points of consideration are, (1) the proper analysis to use; (2) the proper rate of application; (3) the proper method of application, and (4) crops adapted to the soil type.

The use of phosphoric acid is the most important consideration in fertilizing crops on Michigan soils. Both heavy and light types respond to this ingredient. Nitrogen is essential on the lighter types and badly run down heavy types. Potash gives good returns on the lighter types, particularly when used with alfalfa or the clovers.

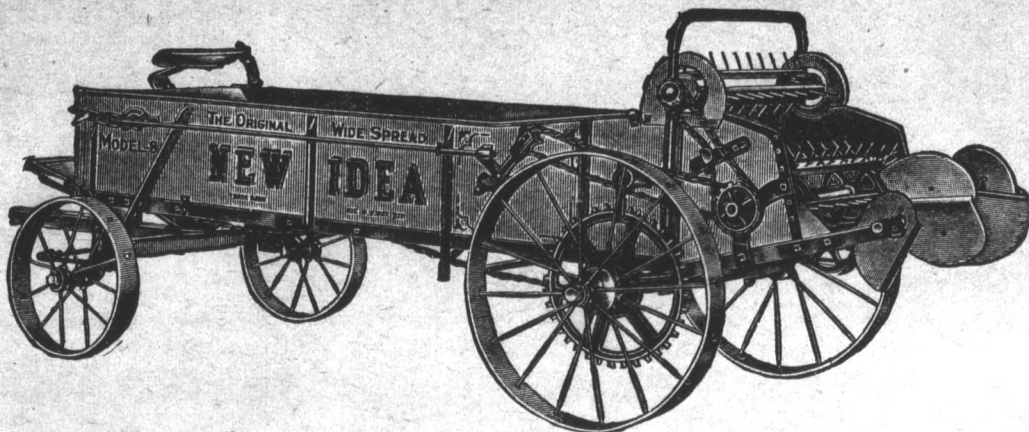
It is a good practice to top-dress wheat and rye in the spring with sodium nitrate at sixty to 100 pounds per acre, or ammonium sulphate at forty to seventy-five pounds per acre just as the plants are emerging from their dormant stage. This practice is particularly good on the lighter types of soil or soils of low fertility. If the soils are alkaline in reaction or have no lime requirement either one may be used. On acid, or sour soils better results will be obtained where sodium nitrate is used.

Acid phosphate at 250 pounds per acre is usually sufficient for oats or barley when seeded alone. If the crops are grown in a rotation with no manure or green manure in the rotation, a 4-12-0 or 2-16-2 will be better. If alfalfa or any of the clovers are seeded with oats or barley, it is advisable to use a fertilizer containing more potash on the lighter type soils, such as an 0-12-6 or 4-8-6.

A complete fertilizer is one containing nitrogen, phosphoric acid and potash. It must contain all three ingredients. A mixed fertilizer does not necessarily mean that it is a complete fertilizer. It may contain only one or two ingredients.

Fertilizers should be used to cut the cost of production and help maintain the fertility of the soil. It costs no more to prepare the seed bed, plant the crop and cultivate a fifty-bushel crop of corn than a twenty-five-bushel crop. Increase the yield per acre and cultivate fewer acres. This will allow more of the farm to be seeded to soil-building legumes.

The farmer with several sources of income is the one who is reaping the largest profits.



Crop Insurance —the 25 Year NEW IDEA Policy

CROP insurance through soil fertilization — protection for the farmer against wasted effort and lifeless soil! Two hundred thousand farmers have "insured" with us — guarded against the steady drain on soil vitality that has made so many acres barren. You can be insured in the same way — by buying the world's most efficient spreader.

**Your Soil Is Your Farm. Build Up
Your Soil—and Your 1925 Profits—
With a Genuine New Idea Spreader**

You feed and fatten your beef and pork for market. Your soil too must be fed and enriched — or you cannot depend upon a profitable yield. You must return to your land the rich harvest of chemicals you take from it each year. You must put into it the raw materials that it turns into waving grain and market produce.

Stable manure is the richest and best fertilizer you can use. It is a veritable gold mine for the farmer who uses it properly — the one perfect food for hungry land! The New Idea Spreader makes it easy to apply this life-giving fertilizer in a thin, even blanket so that all of its rich elements can be readily absorbed.

WRITE FOR COMPLETE INFORMATION

Use the coupon below. Mail it today and we will send you full illustrated details of the New Idea Spreader. Our nearest dealer will gladly demonstrate New Idea money making features to you.

The New Idea Spreader Company, Coldwater, Ohio
"Spreader Specialists for Twenty-five Years"

The New Idea Spreader Co.
Coldwater, Ohio

Please send me complete information about the
☐ New Idea Spreader
☐ New Idea Transplanter

Name _____

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THE NEW IDEA SPREADER

The New Idea is the original wide spreading spreader — famous for twenty-five years. Each year has seen new improvements added until today our Model 8 New Idea represents the greatest spreader value you can obtain anywhere. The New Idea Distributor insures perfect shredding and wide distribution. Easy loading, light draft, simplicity of mechanism and sturdy construction give you every advantage to be expected in the ideal spreader.

The New Idea Transplanter

Below is the New Idea Transplanter — an up-to-the-minute implement for the truck gardener and grower who wants his planting done RIGHT. With the New Idea the work of setting out your plants can be done in double quick time with a minimum of labor and with the assurance that every plant is set correctly and is properly watered. An exclusive feature of the New Idea is that plant setters sit up front, away from the dust and danger of the rear wheels and under the direct supervision of the driver. See this better transplanter at your dealer's — or mail the coupon for catalog.



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The growing and handling of our trees is directly supervised by a member of our firm. Our trees are grown right, dug carefully, and labeled true to name. Agents wanted. Catalogue Free. Established 1863.
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Millions Strawberry Plants \$2.95 per 1,000. Raspberries, Grapes, Bulbs, Flower Seeds, Chicks, Illustrated catalog free. Mayers Plant Nursery, B 322, Merrill, Mich.

CHOICE STRAWBERRY Plants \$3.75 per 1,000. All standard varieties. Guaranteed first class, or money refunded. Catalog. Mrs. Filena Woolf, Dept. G, Allegan, Michigan.

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If you need a first mortgage loan on farm property this bank can offer you unusual terms. We are organized under the Federal Farm Loan Act passed by Congress to provide money for farmers at reasonable rates on favorable terms. We are allowed to loan you 50% of the value of your land plus 20% of the insurable value of the buildings. No bonuses or commissions to pay.

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Raspberry, Blackberry, Grape, etc. Ornamentals, Roses, Gladiolus, Seeds. Guaranteed. Price low. Catalog free. J. N. ROKELY & SON, Rt. 6, Bridgman, Michigan.

1000 Grape Plants, \$17.00

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RASPBERRY PLANTS; BULBS
State Inspected. Guaranteed. Booklet Free.
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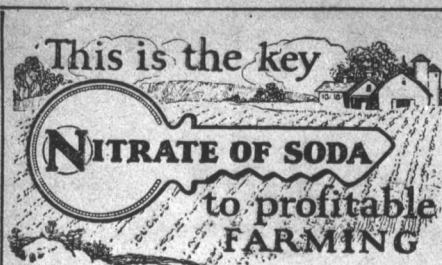
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T.B. WEST & SONS, Maple Bend Nursery
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Highest Quality at Wholesale Prices
Don't fail to write for our special prices and samples. We have real bargains. Reclaimed tested Timothy \$3.00 per bu., Sweet Clover \$3.00, Scarified Sweet Clover \$7.50, Alfalfa \$10.75, Sudan \$4.00, Rape \$4.25, Crimson Clover \$6.00, Simon's Grass \$1.80, Soy Beans \$2.50. Have highest quality Red Clover \$2.00 to \$3.00 per bushel under most dealers' prices and other Grass and Field Seeds correspondingly cheap. We specialize on Field Seeds and are located to save you money and give quick service. We buy from producer and sell direct to consumer at lowest prices. All seeds sold subject to state or government test under an absolute money-back guarantee. Send today for free samples and big money-saving Seed Guide.
American Field Seed Co., Dept. 631 Chicago, Ill.



IT PAYS TO USE NITRATE OF SODA to increase the yield of all crops

Wheat

Michigan Agricultural Experiment Station reports a gain of 7.47 bushels of wheat per acre from top-dressing in the spring with 100 lbs. of Nitrate of Soda. Virginia Station Bulletin number 221 says, "On wheat crops needing nitrogen an increased yield of 5 bushels per acre can be expected from each 100 lbs. of Nitrate of Soda applied per acre." Demonstrations in Pennsylvania have shown an average gain of 7½ bushels of wheat per acre and 37% increase in the straw.

Potatoes

New Jersey Experiment Station shows that the largest yields of potatoes are obtained when Nitrate of Soda is used as the sole source of Nitrogen. What is true of potatoes is true of other vegetables.

Early Vegetables

They come earlier and main crops become better and more prolific when Nitrate of Soda is used. This is why Market Gardeners use such large quantities.

NO AMOUNT of fertilizer will grow a satisfactory crop if it does not contain sufficient nitrogen to balance it. Nitrogen, being the most costly of the fertilizer elements, is the one most grudgingly used and often is of the poorest grade because of its price.

Your mixed fertilizers should contain 4% to 7% ammonia in available form. They seldom do contain that much and the formula does not state its availability. That is why

Cotton

The men who know now concede that Cotton must have Nitrate of Soda to make an early crop. It promotes quick growth and early fruiting. 200 pounds per acre at planting time is the proper application.

Fifty-eight demonstrations in Georgia in 1924 showed an average increase of \$15.74 per acre from the use of Nitrate of Soda.

Tobacco

Ohio and Virginia Experiment Stations report wonderfully profitable gains from the use of Nitrate of Soda on tobacco. Our own demonstrations in Pennsylvania prove that 200 lbs. of Nitrate of Soda used at planting time will add 100 lbs. or more tobacco to the acre.

Apples

Practically all the Experiment Stations in the apple districts now recommend Nitrate of Soda as necessary and are recommending its use in the spring before blossom time. This applies equally well to Peaches, Pears, Cherries and other fruits.

Why not try it on your crops?

Advice on the use of Nitrate of Soda and lists of dealers will be sent on request. In writing please add, to identify this advertisement, the number 1504.

Chilean Nitrate of Soda—EDUCATIONAL BUREAU

Dr. William S. Myers, Director

25 Madison Avenue, New York

Concord Grape vines 1 yr. No. 1 \$25 per 1000. Fruit trees, small fruit plants and Shrubbery. Send for free catalogue. FEATHER'S NURSERIES, Baroda, Mich.

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Write for my free Guide Books, "How to Obtain a Patent" and "Invention and Industry" and "Record of Invention" blank before disclosing inventions. Send model or sketch of your invention for instruction. Promptness assured. No charge for above information. Clarence A. O'Brien, Registered Patent Lawyer, 659 Security Bank Building, directly across street from Patent Office, Washington, D. C.

Seed Corn and Seed Oats

My drying house is filled with Clement's Improved White Cap yellow dent and Duncan's yellow dent seed corn. Fire dried on racks, ear tested, guaranteed germination from high yielding stock. Registered and certified. Worthy Oats. Developed by the Michigan Agricultural College. Heavy yielders with a stiff straw. Write for prices. PAUL C. CLEMENT, Britton, Michigan.

FOR SALE CORN

Choice Seed Corn 1000 bu. 100-day Improved Yellow Dent; 300 bu. Lancaster County Sure Crop; 200 bu. Early White Cap, nearly all 1923 Crop, above 90% germination. Write for price, Sample and Circular. Order early to save money. SHULL FARM, Box 12, Tullytown, Bucks Co., Pa.

THE KEYSTONE RED A REMARKABLE APPLE

Beautiful, rich, dark red. Firm, symmetrical, best of all keepers. Holds its full flavor through winter storage. We have seen no equal to the Keystone Red for combined beauty, flavor, keeping, shipping and bearing qualities. Bears very young. The most profitable apple you can grow. Many other exclusive varieties of fruits; the great Keystone Mammoth Grape; the prize-winning Keystone Morrow Peach; Keystone Red Gem Cherry; many others. Hardy Pennsylvania grown, will prosper anywhere. Every plant guaranteed. Full line of Ornamentals, shrubs, roses, in the free catalog.

Reliable Representatives Wanted
KEYSTONE STATE NURSERIES
163, PITTSBURGH, PA.

WHERE FARMING PAYS

Five fine old plantations in one of the most fertile sections of Georgia have been cut up into small farms and attractive buildings erected. Competent County Agent will advise settlers as to farming and marketing. Improved roads, good schools and many advantages of a progressive community. Level or rolling land. Good sandy loam soil. All general crops do well, truck and fruit crops make big returns. Dairying pays well on nine-months pasture and winter feed crops. Delightful climate, mild winters, pleasant summers, healthful location, plenty of rainfall. Farms for sale at low prices and easy terms. Profits from farm will pay for it in few years.

Write to W. E. Price, General Immigration Agent, SOUTHERN RAILWAY, Washington, D. C., Room 650, for full information about How to Make Money on Southern Farms.



WE TAN and make to your order from your Cattle, Horse and all kinds of Hides and Furs, Men's Fur Coats, Robes, Caps, Gloves, Mittens, Ladies' Fur Coats and Fur Sets, Repairing and Remodeling 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. 38 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.

More Money from Your Crops

You can do it with seeds that have vitality and life—that are of high germination and adapted to the soil. The work of preparing the land and planting is the same whether you use ordinary seed or pedigreed seed. But the crop tells the story; added profit—often double or triple—comes from using hardy, big-yielding, Michigan-grown, Isbell's seeds.



46 Years of Better Seeds

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

This Valuable Book— The 1925 Isbell's Seed Annual tells how to select seeds how to prepare soil, gives cultural directions, and quotes direct-from-grower prices. The coupon brings it Free.

S. M. ISBELL & COMPANY
310 Mechanic St. Jackson, Mich.
Send your 1925 Seed Annual quoting direct-from-grower prices on Quality Seed. (71)
Name _____
Address _____

OUR SERVICE DEPARTMENT

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

PARKING BOATS.

Is it unlawful to hitch a boat or a number of boats to a bridge or tree on a highway between two lakes? Can the highway commissioner give permission to park boats in such a place? G. C.

We have not been able to find any regulation of the parking of boats along highways. In the absence of such a provision no person would have a right to park his boat in any place where it would obstruct navigation.—Rood.

A LEGAL FENCE.

Is a fence built of barbed wire lawful? Would a fence built of woven wire, say thirty-six inches high, and one or more strands of barbed wire above, be legal for line or division fences?—T. S.

Any fence fifty-four inches high and sufficient to turn stock usually kept on farms, is a legal fence, whether made of barbed wire or other material.—Rood.

MORTGAGE SALE.

A. gives B. a mortgage on a forty-acre farm. Later A. sells to C. subject to the mortgage held by B. Now, if B. should foreclose the mortgage and sell at mortgage sale and does not get the amount of the mortgage from the sale, will C. have to make up the balance?—C. S. E.

If the purchaser from the mortgagor has made no promise to the mortgagor or mortgagee to pay the mortgage he is not liable to either for the deficiency.—Rood.

AN OLD SCHEME.

A company I never heard of before sent me four neckties (insured), inclosing a letter stating that after examination if I wanted to keep them to send \$1.50, or if I did not want them, to return them. They inclosed postage for return. As I never sent for the ties, am I under any obligation to return them? Company also wants a person to sell for them. Several neighbors have also received packages the same way.—W. S.

This is a trick that has been played wholesale by certain dealers. The recipient of such a package is under no obligation either to pay for it or return it. He is obliged, however, to deliver it up to the owner upon demand and due proof of title, which in the nature of things would cost very much more than the property is worth.—Rood.

THE CAUSE OF SHEEP RUBBING AND PULLING WOOL.

What is the cause of sheep rubbing and pulling out their wool? I have examined mine closely and find no lice or ticks. They are fat and apparently in good health. Are fed alfalfa hay and cornstalks. They are fine wool sheep.—F. R.

It is doubtful if anyone would care to assume the responsibility of stating the cause of this trouble without first making a very careful examination. It would certainly seem advisable to have a competent local veterinarian study this case at once.

Of course, much depends on the severity of the disorder. With only now and then a sheep rubbing itself occasionally the owner can himself watch developments. But if the disorder spreads and has a tendency to become general it should be attended to at once.

Without the opportunity of an investigation an outsider would be suspicious that something was the matter with the feed. Both of these feeds are suitable for sheep and ordinarily are all right. But sometimes feed gets mouldy. There are so many different moulds and bacteria that one is not sure whether this could cause the trouble or not. Some mould seems to have

no ill effect but others are dangerous. There have been instances where similar conditions were produced in horses, by the food they consumed, that caused nearly all their hair to come off. Conditions might be produced by mouldy or otherwise unwholesome food, through sympathy of the nervous systems, that would produce an irritation in the skin, that could result in serious loss.

FARMER'S VEGETABLE GARDEN.

(Continued from page 305).

fectly straight. Also there is no greater incentive to pride in one's garden than to look down from one end and see the straight, parallel rows.

When placing the rows of sweet corn on the map you are making, do not plan for a straight, single row, but rather, place two or more rows side by side, otherwise you will not get good pollination and the ears will not be well filled.

It is a good plan to place the rows of squashes, pumpkins and other rank growing vine crops next to the strip of clover, as this will result in the saving of room.

By making a plan early, it will be possible to secure a well balanced garden, with just the right amount of each kind of vegetable. A succession should be sown so that there will not only be an ample supply throughout the growing season, but also a goodly supply of squashes, pumpkins and root crops to be stored for winter use. Many of the summer vegetables may be canned so that they will retain much of their food value.

The next thing to be considered is the seed supply. This is one of the most important items to be considered for much of the success of your garden will depend upon the quality of the seed which is sown. The best of soil and the greatest attention to details of cultivation will count for little if the seed sown be not of the highest grade.

There are great differences in varieties, as to their adaptation, their quality, and their breeding. Many varieties take too long a time to reach maturity to be of value for sowing in Michigan. To sow these might result in total loss.

There are certain varieties which differ largely from others in the matter of quality. One variety of snap beans may be tough, stringy, and woody in fiber, while another, equally productive, may be tender and stringless at all stages of growth. A smooth seeded hard pea is lacking in sugar, while a wrinkled seeded variety is sweet. One variety of radish may quickly become pithy, while another may stand for a week or more while still retaining its mild, crisp character.

There is the matter of breeding to be considered. There is just as much difference between well-bred seed and "scrub" seed as there is between a pure-bred cow and a scrub. The better class of seedsmen lay great stress upon the purity of the seed which they grow. It never pays to purchase seed from any one but a reliable seedsman. Good seed will probably cost a little more than poor seed, but they are worth many times over the difference in cost. Poor seed is dear at any price. The relation which cost of good seed bears to the value of the crop is so small that one can well afford to pay any extra cost.

And now get out your pencil, rule and paper, and get this plan under way. In a subsequent issue of The Michigan Farmer we will give a list of some of the more desirable varieties, together with the proper planting dates for each.

Doing New Orleans

From an Agricultural Standpoint

By Myron A. Cobb

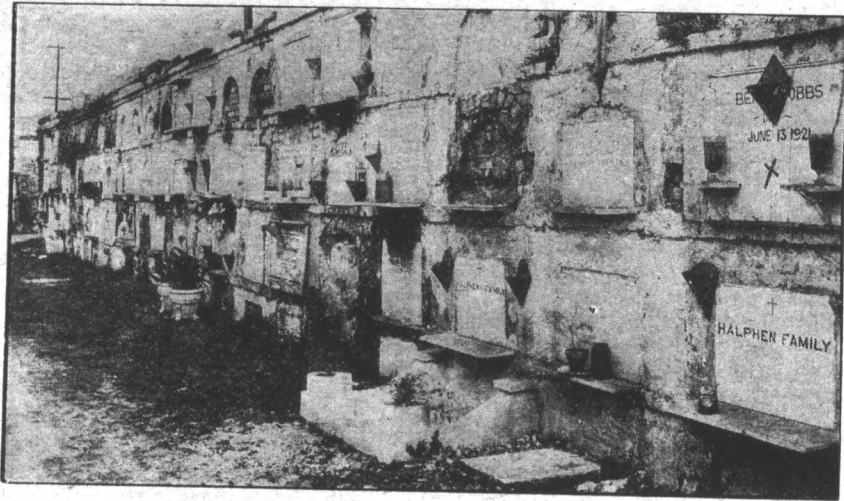
STANDING on the New Orleans wharf in January and seeing the loading of 200,000 bushels of wheat on a vessel bound for Germany gives one a partial understanding of why wheat has jumped from ninety cents to \$2.00 a bushel. During the fall and winter, it is said, wheat and rye has been shipped from this port to all the countries of Europe. Clearly the problem of agriculture is the handling of the surplus. Our yearly production of wheat is approximately 900,000,000 bushels and our consumption is 600,000,000. It does not take trigonometry to calculate the mathematics of the problem, but it does take the farm bureau, United States Department of Agriculture, congress, etc., to solve the result of our production.

An examination of the wheat in the cargo for Germany, shows it to be of very poor quality, small berry, mixed, shrunken and containing weed seed. Most of the wheat shipped to Europe

ing fruits and early vegetables for our people from the isles of the sea. The ships of the United Fruit Company, flying American flags, makes regularly the ports of the Gulf of Mexico, carrying flour, and manufactured articles, and bringing fruits to our shores. It takes shipload after shipload, day in and day out, to stifle the cry, "Yes, we have no bananas today."

That the American farmer must be a chemist, a botanist, a business man, an artisan, is well known. A few days on the wharves of a port having foreign shipping will convince one that the farmers must be interested in world-wide problems. He must be interested in who carries his products to other shores. His financial success or failure depends on this.

No trip to New Orleans is complete without a visit to the cemeteries. Here we find hundreds of acres of expensive above-ground tombs. The soil and subsoil of this area, without drainage, is



One of New Orleans' Above-ground Cemeteries.

is of a poor grade. "That is all they can afford and they will use it somehow," is the response of an elevator man on my inquiry as to the advisability of shipping poor quality grains.

There are quite a few large wheat elevators in New Orleans. These hold hundreds of thousands of bushels for foreign shipments. Some of the wheat from the Mississippi Valley is shipped by rail and barge to these elevators. It is interesting to see the unloading of these wheat barges. Elevator spouts are placed in the piles of wheat and the wheat is "sucked" up like a silo filler working backward. Bulk cotton is handled in a similar manner at the gins.

Other outgoing agricultural materials shipped from the New Orleans port during January are cotton, lumber, tobacco, rye, condensed milk and corn. The incoming materials (in large quantities) are coffee, syrup for refining to sugar, sisal, fruit and paper. The latter was coming from Norway's trees.

A landlubber from Michigan is especially interested in docks, shipping and ships. To see the flags of other nations flying on foreign ships is attractive. In Mobile and New Orleans the flags of the following countries were seen on ships in a short time: Germany, Holland, Japan, England and the United States. There is a touch of regret in not seeing more ships flying our flag. Do our people lack the spirit of adventure? Certainly not, is the answer. Are we not accustomed to handling commerce to foreign shores? Perhaps. Do we need a bonus to encourage our people to engage in foreign trade? Some say yes. It is certain that to sell our surplus of corn, wheat and tobacco, etc., to best advantage we should have American ships to secure markets and carry our products to the four quarters of the globe. At present American ships are bring-

filled with water, "There is not a cellar in all this area." The bodies of the dead could not be buried under ground. They are all laid away in sorts of tombs varying from a simple bricked-over coffin, to elaborate mausoleums costing hundreds of thousands of dollars. The cemeteries are most curious and interesting, and are visited by all tourists.

Under moderate circumstances, people cannot afford elaborate tombs and are placed, upon death, in a "hole" in a tomb containing hundreds of bodies. The body is slipped into one of these niches and bricked in. One can see many of these composite tombs, four notches high and fifty to one hundred tiers long.

A dilemma arises when friends wish to place flowers on the grave. Each niche has a tiny ledge on the front and on this are placed vases, cans, bottles (milk bottles) in which flowers are placed. This lovely milk bottle stands in an odd place.

Naturally, the rich expend large amounts of money on the tombs, trying to outdo the others in elaborateness, uniqueness. The latter idea adds variety to the visit as no two tombs are alike. Some have shrines, others have elaborate decorations, figures, or stained windows.

Many societies bury their dead in a single tomb. The Italians and Greeks have brought the art of Rome and Athens and applied it to the tombs. You see Ionic and Corinthian columns. Catholic, Jew and Gentile are buried beside each other. It is said that this is found only in the New Orleans area.

With better drainage some burials are made now underneath the ground. "You haven't got that grave deep enough," was my comment as I peered down into a shallow, newly-made grave. "It is as deep as the law requires, three and one-half feet," was the reply. This is to the bottom of the

Zinc Insulated AMERICAN FENCE

Strength and Durability

Zinc Insulated American Fence with its heavy uniform zinc insulation against rust is as different from ordinary fence as Banner Posts with their railroad rail construction and slit wing anchor plate are different from ordinary T-Steel Posts.

Banner Steel Posts with their railroad rail design have the strength to hold the fence securely in line, plus the solidity to withstand the strain of installation and many years of hard service.

Easy to Attach Line Wires

Continuous rows of notches close together, running up and down both sides of the post, provide easy attaching of line wires.

Wires easily fastened with Zinc Insulated "Hump" Fastener, which snaps on both sides of the post and holds wires securely.

Also note how the notches extend out and away from the body of the fence so that snow, moisture, etc., cannot lodge, and start rust.

Large Anchor Roots the Post Into the Ground

Note the split fins. As the first fin cuts a slot in the soil the second fin crowds dirt over it and the third fin closes the opening cut by the second. Banner Posts hold their anchorage while the fence is being stretched. Design Patented.

American Zinc Insulated Fence (insulated against rust) and Banner Posts are sold at no extra charge, yet give you so many more years of service, that they provide the most economical fence you could own. See them at your dealer's.

Practically all of the leading railroads in the United States use our fence and posts. Our fence is selected and used each year to enclose pens at the International Live Stock Exposition held in Chicago.

BANNER -FORMERLY ARROW R.R. RAIL SECTION STEEL POSTS

American Steel & Wire Company
Chicago New York Boston Birmingham Dallas Denver



Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.
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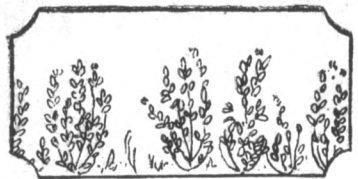
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Can You Tell the Difference?



The first lot gave a good stand



The second came patchy and poor

WRITE TODAY FOR FREE BOOKLET
"7 LESSONS IN JUDGING SEED"



SUMMER before last, John Wilson put a piece of land into Alfalfa. It was a fine big field, well drained and in first-class shape. He bought a bag of seed like No. 1, but before he finished seeding he had to go back to town for another peck to finish out with. As his dealer had no more of the same brand, he gave John another kind, which was just as high test and looked fully as good.

The next spring anybody could tell, by the looks of the Alfalfa, just where John left off with the first seed and started with the second. The first gave a good stand, while the second came up patchy and poor.

According to the tags, Brand No. 1 contained just as much pure, live Alfalfa seed as Brand No. 2. There might have been several explanations.

Free Book You can learn how to avoid getting seed like John Wilson's No. 2 by reading "7 Lessons in Judging Seed" containing important facts about seeds. Worth dollars and cents to every farmer. Sent free on request.

THE ALBERT DICKINSON CO.
Chicago, Ill. Minneapolis, Minn.
BUFFALO BOSTON
PITTSBURGH NEW YORK BINGHAMTON

grave, too. It did not seem due respect to the dead not to make the grave deeper or to be poked in a "hole" in the wall. I suppose it depends on your bringing up.

The cemeteries are a fashionable place. On Sundays and holidays these places are crowded with people paying tribute to the dead, visiting, gossiping, and making love. Why spend the savings of a lifetime in a cemetery without some practical use to someone?

Two interesting suggestions come from a study of the inscriptions on the tombs. First, in most cases, the birthplace of the deceased is given as, John

Doe, Berlin, Germany, or Wayne County, Michigan. The second valuable suggestion, the maiden name of a woman, if married, is given. These practices make records more complete and are well worth imitating. Another idea not so good, is simply placing a number on the bricked niche of composite tombs. The writer does not want to go by number thirteen or twenty-three when millenium comes.

The tourist will enjoy an hour or two, a day or two in these cities of the dead of New Orleans. "May their souls rest in peace" is the oft repeated inscription.

Ionia's Big Round-up

(Continued from page 310).

seven and twenty years are not in schools in this state. Not only ought this group be reached, but the services of the college should likewise be made easily available to all ages. The man of eighty should have the chance to improve his mind through extension work, if he so desired. If this effort can be properly carried out, it should prove a real factor in the rebuilding of communities.

The fine way in which Michigan's agricultural leader was received by the farm folks of Ionia indicates that farmers seem happily disposed to support his program of work.

"The Most Important Spot on Earth."

The above is the theme so ably treated by Dean Alfred Vivian, of Ohio State University. He referred to the farm home—discussing the great contribution to our national advancement made by the farm homes of America, and the possibilities of these homes becoming a liability unless supported by a broad social and economic program. "The important thing," said the Dean, "is that the right kind of young men and women should decide to remain on the farm and become the farmers of tomorrow."

"I have, within the last three or four years interviewed some five hundred farm boys and girls who were in the first two years of high school and have asked them what they would need to have promised to them so that they could look forward to life on the farm with pleasant anticipation. Their answer, when tabulated, nearly all came under five heads:

1. We should be able to earn an income on the farm, equivalent to that we could make in the city.
2. We should be able to have the comforts and conveniences, usually found in the city home, in our country homes.
3. Our schools should be as good as our city schools.
4. We should have an attractive social life.
5. We should have a satisfactory religious life.

"These five requests seem reasonable enough and they are merely the right of all people living on the farm. One thing is certain, however, and that is, whether or not they are our right, we will get them only when we work for them, and to obtain them will require cooperative effort.

"We are likely in America to look too much to government, and fail to remember that the things that are really worth while come only through our own efforts.

"Our children will face a much more complex agriculture than we knew anything about in our early days. This new agriculture will call for a high degree of education; the new farmer must learn to take a broad view of economic relations; must be able to develop within himself analytical powers—there will be no place in the new agriculture for the one-track mind.

"The new agriculture is going to require the cooperation of many organizations and we must have the same whole-hearted cooperation between the various organizations as we expect between the members of any one or

genization. The real reason for cooperation lies in the need of larger units. We have been trying in the past, in farming, to conduct a wholesale business on a volume of trade that would be small for a retail business, and we must learn to unite our efforts in such a way that the overhead and marketing will bear a better relation to the total volume of business.

"Among other things we must learn, is that farming is a long time job and not a matter of any one individual year. Good things evolve slowly and if we have patience there is no reason why we should not put agriculture on a sound business footing.

"Important as is the economic side of farming, however, we should not lose sight of the fact that farming is a mode of life, and that the really important thing is the family that lives in the farm home. The real reason why we desire an increased income for the farm is because we wish a broader, richer, home life for the farm family. Boys and girls, men and women, are after all the best farm crop and it is quite as important to know how to spend money as it is to know how to earn it."

Exchange Club Banquets Farmers.

A fine exemplification of the cooperative spirit of the business men of Ionia was shown when, in the evening, they gave the farmers a real banquet. Over three hundred plates were spread. Here, too, a significant program was carried out. Mr. Sapero told the audience how the business men of California helped themselves to get on their own feet by actively promoting the organization of the raisin growers. Dean Vivian followed by emphasizing the need of the business men's help in building serviceable farmers' institutions, and also the contribution of the farm home to the business interests of the community and nation, as well as to the development of our great democracy.

The farmers present, in appreciation of the generosity of the Exchange Club, voted to give to the business men of Ionia a banquet and program, some time in the near future. This expresses the close harmony existing between the men of the city of Ionia and the men of the surrounding farms. Finally, we must give credit for the promotion of this whole enterprise to Albert Cook, Jr., son of the master of Michigan's State Grange, and his co-workers.

ANOTHER GAS ENGINE COURSE.

SO successful is the progress of the first course on the operation and repairing of trucks and tractors now being given at the M. A. C., that a second course, continuing from March 9 to April 7, is planned. This four weeks' training is certain to make the use of gas engine equipment on many farms far more efficient and useful. Each student provides himself with a one-piece cover-all suit, an adjustable wrench, screw driver and a pair of combination pliers. Their other expense is for board and room, which runs from seven to eight dollars per week in private homes.

\$12.50
U. S. Army Model 1917 Rifle
Cal. 30, five shot. Barrel 25 1/4 in., total length 46 in., weight 9 1/2 lbs. Barrel and stock new. Sight mounted over receiver. This type used by A. E. F. Price, \$12.50. Ball cartridges \$3.50 per 100. Gunners cleaning kit 35 cents. **15 Acres Army Goods.** New Catalog 1925, 60th Anniversary issue, 372 pages, fully illustrated, contains pictures and historical information of all American military guns and pistols (including Colts) since 1775, with all World War rifles. Mailed 50c. Established 1865.
Francis Bannerman Sons, 501 Broadway, New York City

Only \$5.69

month for a few months
—easy to own the famous
standard WITTE Engine.
Uses Kerosene,
Gasoline, Distillate or
Gas. Equipped with celebrated Troubleproof
WICO Magneto. Simplest and cheapest to operate.
New device makes starting easy. 50% surplus power. Sizes 2 to 25 H.P.—all styles.
FREE BIG NEW NINETY DAYS' FREE TRIAL.
Write today for my new illustrated engine book—sent absolutely free. No obligation to you.
WITTE ENGINE WORKS
2198 Witte Building, - - KANSAS CITY, MO.
2198 Empire Building, - - PITTSBURGH, PA.



THERE'LL soon be lots of work to do. Are your horses ready?
Use Gombault's Caustic Balsam for Sprains, Spavin, Splint, Capped Hock, Curb, Fistula, Thoroughpin, Shoe Boils, Poll Evil, Wire Cuts and Muscular Inflammation.
Known and used everywhere for 41 years. Apply it yourself. Directions with every bottle. Won't leave scars or discolor hair. Buy it today. \$1.50 at drug stores or direct on receipt of price. The Lawrence-Williams Co., Cleveland, Ohio.

GOOD FOR HUMANS, TOO
GOMBAULT'S
Caustic
BALSAM

Trees From Kalamazoo Direct to You---at Reduced Prices

Also shrubs, berries and roses. Beautiful 1925 catalog sent free upon request. Full of big bargains and tells about stock to be given away. Everybody should plant this spring. It is a patriotic as well as a profitable duty. Therefore you cannot afford to be without this catalog. It will cut your tree bill in two. Ask for it today—NOW—right away.

CELERY CITY NURSERIES,
Growers of Good Trees for Many Years Box 208, Kalamazoo, Mich

Price-Cutting Distributors

Their Influence on the Marketing of Milk

By J. T. Horner

AS has been stated in a previous article, the price which the producer receives for his milk is dependent, to a certain extent, upon the retail price which prevails in the city market. There are several factors which have an influence on the retail price. The consumer's belief in the fairness of the price has already been dealt with. In this article consideration will be given to the price-cutting distributor.

The money with which the distributor pays the producer must come from the sale of milk. The larger the consumer price the more money there is which could ultimately go to the farmer. However, a high retail price does not necessarily make a high price for the dairyman. Quite naturally the distributor is going to keep as much of his total income as possible. The bargaining power of the producer affects quite materially just how much of the total income the milk dealer can be induced to give up. Anything which tends to reduce the income of the distributor reacts against the farmer's return.

In considering the milk market as a whole, due regard must be given to the interests of the consumer. The price should never be placed above an equitable level merely for the sake of giving a higher return to the milk producer. The retail price should not be so high that milk consumption be reduced below health requirements. On the other hand, it must be sufficiently high to insure a permanent flow of milk sufficient to meet these requirements. If the price should go so low that dairying becomes unprofitable, many farmers would go out of business. This would decrease the supply and result in an abnormally high price because of the shortage.

The consumer, then, is interested in having a price which will assure profitable dairying and a permanent and pure milk supply. The temporary financial saving which comes to the consumer through a low price may be followed by a serious injury.

In our present day economic system free and unfettered competition is considered not only beneficial but also necessary. There is fear of monopoly. Trade price agreements are frowned upon and have been made illegal. If we choose free and unlimited competition we should not forget that we must also bear its burdens.

In the retail milk market the price-cutting distributor is a factor which keeps prices down. His service to society is to counteract, to a certain extent, the forces which make for higher prices. The injuries which are the result of his presence must be offset against this advantage.

The milk market is affected more by price-cutting than most other markets are. The reduction of five cents a pound on coffee or meat will attract some trade; but many consumers will

not go to the trouble of hunting up these bargains and going many blocks to take advantage of them. A wide range in retail prices of most food products is possible because the market area is rather limited. Then, too, a low price on one article might be offset by a higher one on some others. In order to get the lowest prices on all products the buyer would have to spend much time in shopping around and buying at many places. The saving would not repay the average consumer for the effort expended. Store keepers know these facts and, therefore, offer low prices on those products which will probably attract the largest number of buyers to their store.

The milk market is different. In the first place it is handled by a specialist. A reduced price cannot be offset by a higher price on some other product. A decrease from ten cents to nine cents a quart means a reduction of ten per cent on the milk dealer's total stock of goods. This decrease is not for a day or two or a short "special sale" period, but it is permanent. No other business could take such a cut in price unless its margin was extremely wide. Such a decrease can be met only by lowering the price to the farmer.

The grocery market is limited in area because of its fixed location. A different level of grocery prices might prevail in different parts of a city. This is not true in the milk market because the milk supply is on wheels and can go any place in the city.

There is another difference. The consumer selects his grocer, or meat dealer, but is solicited for his milk trade. The main selling point of the milk solicitor is a lower price. The housewife, thus approached and offered milk for a cent less, sees no reason why she should not accept it. She sees the lower price only. She is not able to compare quality. Sanitary conditions in the bottling plant or on the farm are matters to which she gives little thought. This buyer of milk does not concern herself about how much the farmer gets for his share in providing her with milk, or whether this new milk distributor can continue in the market and pay his just debts. She sees only a quart of milk at a lower price.

The milk dealers who has been supplying this customer does not want to lose his customers. To retain them he is forced to meet the lowest price.

Thus, the cut-price dealer forces a lower retail price. It matters not whether this man can make money at the low price or not. If he cannot he will go bankrupt and the farmer will not receive pay for the product which he has furnished in good faith. When this man is gone another will come to take his place, and the process goes on forever.

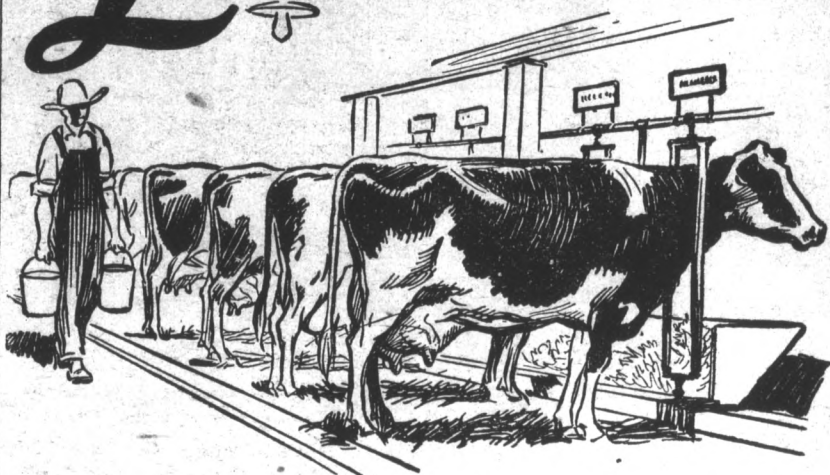
Every cut-price milk dealer does not

There is no substitute

for

Linseed

OIL MEAL



Considering the Results

THE best stockmen everywhere appreciate the virtues of Linseed Oil Meal. They know by experience that there is no more healthful feed for use with all classes of farm animals. Not only is it rich in protein (32 to 36 per cent) but fully as important are its other properties. And it is one of the safest of feeds for all kinds of stock. One does not have to be careful in using it; it is as good for swine as it is for dairy cows, and sheep or horses benefit from it the same as do beef cattle. Glance briefly below and see

What It Is And What It Does

It pays large returns on the investment.
It is rich in protein.
It is a mild laxative, mucilaginous and soothing.
It is safe.
It is palatable.
It can be profitably fed to all farm animals.
It makes mellow hides and silky hair.
It is widely used for cows on test; lengthens lactation.

Extensively used for fitting animals for show.
It improves the thrift of animals. It lessens the time needed to fatten stock.
It saves a large bulk of other feeds. It is contained in nearly all good mixed feeds.
It is highly digestible.
It helps make other feeds more valuable.
It greatly increases the value of the manure.

"How to Make Money With Linseed Oil Meal"

A condensed and up-to-the-minute feeding guide—is yours for the asking. It is written by Prof. F. B. Morrison, Asst. Director of the Wisconsin Experiment Station and author, with W. A. Henry, of the recognized American authority on stock feeding—"Feeds and Feeding." This book will show you how you can make your present feeding system pay much greater profit—or point the way to new and better rations. Send for your copy now—free.



Ask for booklet D-5

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MEAL ADVERTISING
COMMITTEE**
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CHICAGO, ILL.

Balance the Ration With



Costs Little, Earns Much

Leaky Roofs

Made
Water-tight
at
Small Cost



Guaranteed
To Wear
10 Years

SEAL-TITE spreads over any kind of old roofing. Not a paint. Amazingly simple way to waterproof and preserve old leaky roofs. Easily applied. No heating. Costs but a fraction of the cost of a new roof.

**Don't Pay for
4 Months!**

Seal-Tite must do what we claim or it costs you nothing. Cover your entire roof. Then let 4 months' sun and rain prove our claims. Send for full details of this exceptional offer.

Monarch Paint Co., Dept. 31-03 Cleveland, Ohio

POWER MILKER \$142

Complete READY TO MILK WHEN YOU GET IT
Send for sensational offer! Milk 18 to 40 cows an hour—easy. Costs nothing to install. Easy to clean. Milks the human way—easy on the cows. 30 Days Trial—10 Year Guarantee—Cash or Easy Terms—a year to pay. Write for FREE BOOK, "How to Judge Milkers." Get your new! Ottawa Mfg. Co., 1807 White Street, Ottawa, Kansas
Box 1807 Magee Bldg., Pittsburgh, Pa.



**SPOHN'S
DISTEMPER
COMPOUND**

Don't take chances of your horses or mules being laid up with Distemper, Influenza, Pink Eye, Laryngitis, Heaves, Coughs or Colds. Give "SPOHN'S" to both the sick and the well ones. The standard remedy for 30 years. Give "SPOHN'S" for Dog Distemper. 60 cents and \$1.20 at drug stores.

SPOHN MEDICAL CO. GOSHEN, IND.



Unless Care Was Taken Last Fall in Gathering and Housing Seed Corn the Quality Probably will be Disappointing.



An Investment for Profit

There is no other way to look at STAR Barn Equipment save as an investment for continual profit. Its cost at the time it is installed is returned to you in greater milk production just as surely as though it had been invested in additional cows. And this is truer of STAR equipment than any other—it has more exclusive features, takes less time and costs less to install, is more efficient in operation and lasts longer.

Modernize your barn this spring and start your milk checks on the upward climb—send the coupon below TODAY!

HUNT, HELM, FERRIS & Co., Harvard, Ill.
San Francisco Minneapolis Albany Los Angeles

Hunt, Helm, Ferris & Co.,
Dept. D-53, Harvard, Illinois

Gentlemen: I have.....cows.....horses.....young stock. Please send me free floor plans and other suggestions. I am considering { building { remodeling { a barn next.....

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UNITED Power Milker

SAVES time and money

Put its simple, sanitary, efficient, safe milking features to work for you. Equipt with "See-thru" teat cups. Engine or electric power operated. Sensational price.

VIKING Cream Separator

Close skimmer, easy washing discs. Sizes 100 to 1000 pounds. Strong, durable. Over million used. Hand, belt or electric power. Liberal terms.

Ask for Free Literature Dept. A-3
United Engine Co., Lansing, Michigan

Advertising that Pays

TRY a Michigan Farmer Classified Ad. to sell your surplus poultry, or to get that extra help. They bring results with little cost, see rates on page 341 of this issue.

Michigan Farmer, Detroit

FURS Lake Land Fur Exchange, Salem Mich. We have special outlets for Muskrats. Write for price list. Will call for lots of over \$500.

Use My WEAR-MORE Harness

30 DAYS FREE —then decide

Made in all Styles

"I take your word for it if not then convinced — simply return harness at my expense."

John C. Nichols, Pres.

\$5 Down if You Decide to Keep It; Balance on Easy Monthly Payments

Just do me the favor of sending your name at once. I want you to get my big free book which tells the interesting story of this strongest harness made. See how I've entirely eliminated rubbing and sawing between leather and metal. Doubled life right here! Learn how short-snubbing of leather under buckle edges or around narrow metal units costs you money in breakdowns and repairs. See how I overcome this — how I learned this priceless harness secret from a pail handle. I believe you owe it to your pocketbook to pose yourself. All I ask is that you Cat Wear-More superiorly severely and thoroughly, at my risk and expense. That's fair, isn't it? Then write me today for book and new reduced prices.

JOHN C. NICHOLS, PRESIDENT
John C. Nichols Co. (Est. 1909)
1944 Erie Ave.
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Free Book on Bigger Value Harness

No Short-Snubbing Here

See how patented WEAR-MORE buckle lets strap pull against big, broad surface, well protected like your hand on the large, comfortable round wooden handle on pail bail

fail. Some use this method to build up a trade and then raises the price. When a man starts business on a small scale his expenses are not so great. He is willing to take a lower wage for himself while he is building up the business. Very little hired help will be required. His wife and children can fill and wash bottles, deliver milk, solicit trade and do the other necessary work. This man can obviously operate at a lower cost than the one who has to hire all his labor. As soon as this cut-price dealer expands his business and makes sufficient money, he hires his labor and relieves his wife and children from their labor. Then, he desires to raise the price so he can meet expenses.

Whether it is desirable to have all milk distributed by the small family enterprise which makes for low standards of living and secure a slightly lower price is not to be considered here. The facts are that the bulk of it is handled by large concerns which aim to pay their workmen at least the standard wage. Any factor which brings about a price lower than sufficient to pay this and return the farmer an equitable price results in the farmer bearing the burden.

In the past we have not known about the milk market. We have not been looking at it in its entirety but rather examining it in parts. There has not been sufficient consideration to the dependence of one factor upon another. The farmer has rather welcomed the presence of the cut-price distributor without realizing the effect on his own purse.

We should not countenance market practices which unduly raise the price of milk to the consumer. On the other hand, we should realize that in the interest of the farmer every legitimate practice should be followed to maintain a stable retail price. It is surely within the limits of law and common sense for the farmers to sell their product only to those dealers who follow practices which yield the highest return to the producer, provided these practices do not injure the consumer. The consumer, also, needs to understand that the cut-price distributor is not of permanent value to him.

Farmers producing milk for the city market should make it their business to know about the buyer of their product. Is this man taking advantage of your unfamiliarity of the market to make you a party to practices which will ultimately result in a reduction of price you are to receive?

WILL ENCOURAGE POULTRY BUSINESS.

THE Gogebic Range Poultry Association is sponsoring a plan to establish the boys and girls of that county in the poultry business with gifts of settings of eggs of standard pure breeds of poultry. All boys and girls who accept this proposal will be gathered into a club to be designated "The Juvenile Poultry Breeders' Association." It is hoped thus to encourage the raising of better breeds of poultry on the Gogebic Iron Range.

The agreement entered into between the Gogebic Range Association and the club members calls for the rearing of the chicks to the best ability of the members, and the exhibit of the results at the next annual meeting of the Gogebic Range Association in a special exhibit for juvenile breeders only. For these exhibits suitable awards will be forthcoming.

The donor reserves the right to select from the poultry thus reared before the winter show is staged, one pullet or cockerel and the donor is entitled to make suggestions regarding the proper course in rearing, feeding and housing the chicks. The recipient agrees to adopt these suggestions as far as is practicable. A committee of the Gogebic Range Association is created to put the plan in motion and supervise its execution.

BUY YOUR Cream Separator Now—Save Money

Make money and save money by having a high quality, efficient cream separator like the Empire-Baltic. The best investment you can possibly make. Order now—our direct-to-you BED ROCK FACTORY PRICES.

Empire-Baltic

This is the 400 lb. size **PRICE \$55**

Is the famous Cream Separator with "The Million Dollar Bowl" — the ONLY real self-balancing bowl — sold at a price that will put thousands of these wonderful separators into the hands of farmers and dairymen everywhere.

All Shipments PREPAID

Quick delivery everywhere and no extra charges of any kind. You pay for the separator only. Each separator complete with tools, oil, brushes, etc.

\$5 Down 30 Days' Trial

Money returned if not satisfied after 30 days' trial. Satisfaction guaranteed. **YOU TAKE NO RISK.**

Price List Shipments Prepaid

No.	Capacity	Price	1st Pay't	Monthly Payments
M.O.	150 lbs.	\$25.00	\$5.00	\$5.00 for 4 Months
No. 2	350 lbs.	\$40.00	\$5.00	\$5.00 for 7 Months
No. 4	400 lbs.	\$55.00	\$5.00	\$5.00 for 10 Months

Write for prices on larger sizes up to 1850 lbs. capacity. Also get our low prices on Electric or Power Driven Separators—telegraph at our expense.

FREE Service and Parts

for one year. Get catalog, 5% discount for cash—or \$5.00 down and balance monthly. Write today—our use coupon.

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Please send me
☐ CHECK ☐ New Empire-Baltic Catalog
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Town.....
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Feed Minerals and Save Corn

An honest feed of proven merit, without drugs or filler. Public formula: Special Steam Bone Meal, ground limestone, salt, tankage, iodized calcium.

Sold direct at bargain prices:

500 lbs. \$15.00
1/2 ton 27.50
Ton 50.00

[Agents Wanted]

F. O. B. Factory

Write for instructive book, "Minerals for Farm Animals." Free on request.

United Chemical & Organic Products Co.
4112 S. Ashland Ave., Chicago, Ill.

VAN WERT EXCELSIOR WORK CLOTHES

Better Made for Heavy Wear

You'll find the biggest value in Van Wert Excelsior Work Clothes. These garments are built by skilled free labor—not by convicts in penitentiaries. Materials are the best and every garment is sold to you by your dealer under our positive guarantee of satisfaction.

Van Wert Excelsior Work Shirts

are made extra-strong at points of wear or strain. Every garment is full-cut, so that a man can bend, twist, pull and strain without any binding across shoulders, back, arms or legs. The shirts have wide, perfect fitting collars with double lock-stitched openings. The overalls have many special features that make them comfortable and convenient.

Send a postal for our illustrated booklet showing the styles and materials in Van Wert Excelsior Work Clothes. Select exactly what you need, then get them from your dealer. Write today.

Van Wert Overall Mfg. Co.,
203 E. Main St., Van Wert, Ohio.

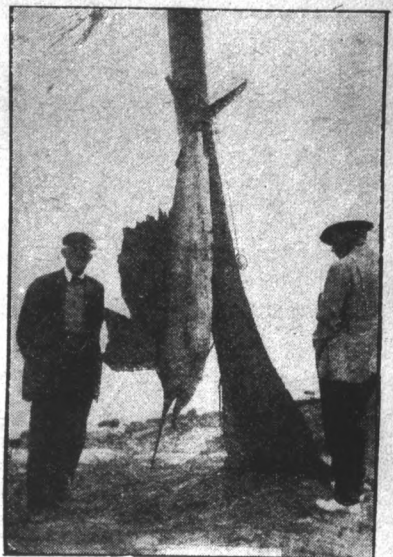
WORLD EVENTS IN PICTURES



Locked steel vests are used by idle trainmen as they replace Wall Street messengers.



William Titchenor, known as "The Wolf King" in fur trade, examines \$5,000,000 worth of peltry to be auctioned in New York to buyers from all over the world.



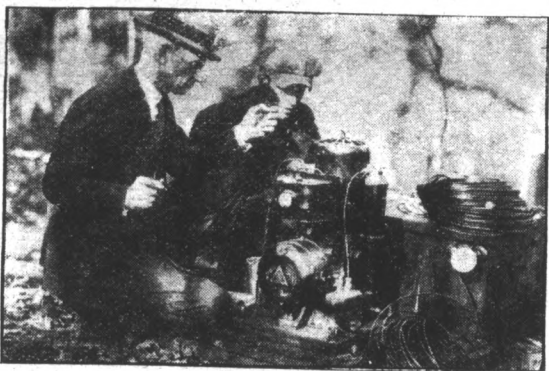
This monstrous sail fish was caught at Miami, Florida. It weighs 95 pounds.



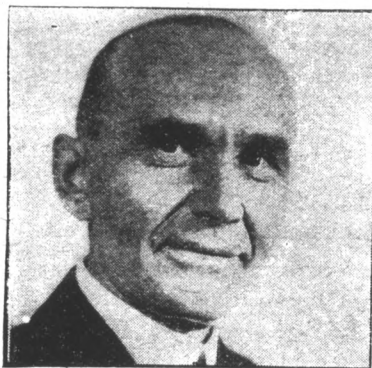
Mile. Oulio, on the site where she made the wonderful discoveries concerning the town of Mallia, Crete, which has long been buried beneath the debris of newer eras of civilization.



A living statuary group on the rim of Zion Canyon, 3,000 feet above the floor of Zion National Park, Utah. This scenic preserve now completely equipped as a national park, will be opened May 15.



This portable electric light plant lighted Sand Cave, and kept Frank Collins warm while rescue was in progress.



William M. Jardine, of Kansas, is reported as our next Secretary of Agriculture.



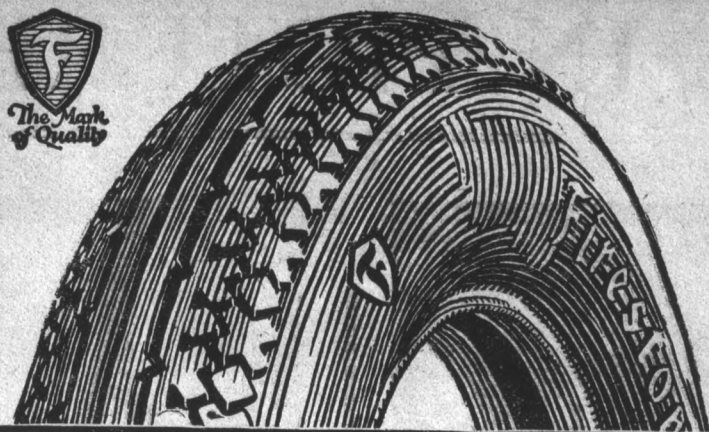
Eugene Clootto, world's champion, broke his own record when he ran a mile in six minutes and four seconds at Lewiston, Maine.



A blind girl (second from the right) is a member of the 'varsity four of St. Hilda's College, now in active training on the river at Oxford, England.



Four enginemen, and three soldiers, were killed when a Missouri-Pacific passenger train crashed with a freight train near Kansas City. The soldiers were riding the "blind baggage."



BALLOON Gum-Dipped CORDS

Make Their Best Showing on the Worst Roads

Firestone Full-Size Balloons make driving both comfortable and safe. Their extra flexibility enables them to absorb completely the shocks and bumps of rough roads.

Thousands of motorists now using these big Gum-Dipped Balloons are enthusiastic over their many advantages. And unsolicited testimonials from these satisfied users invariably mention the higher mileage, lowered car depreciation and reduced gasoline consumption.

These items of economy are certainly of worth-while importance to every rural car owner.

You, too, have probably been planning to put Gum-Dipped Balloons on your car. You should do it now. Let the nearest Firestone Dealer explain the liberal allowances made for your old tires.

Firestone

MOST MILES PER DOLLAR

STRAWBERRY PLANTS \$3.00 UP
Grape Vines At Lowest Prices
Buy direct from the grower and save money. Heavy yielding, big rooted, healthy, Northern grown Strawberry, Raspberry, and Blackberry plants, Fruit Trees and Ornamental Shrubbery, at reduced prices. All stock graded to highest standard. Free from diseases. Guaranteed. Will thrive anywhere. Write for our catalog before you buy.
DASS NURSERY CO., Box 8, Bridgman, Mich.

KEITH BROS.
NEW FREE STRAWBERRY BOOK
Filled with Pictures of wonderful NEW Varieties which yield Big Crops and Profits. Mr. Mienk, of Michigan, cleared \$169 from 1-3 A.—Ed. Roloff, of Wisconsin, made \$1000 per A.
\$500 to \$700 per Acre
Keith's New-Land Plants always succeed. Guaranteed. Vigorous. Productive. Grown in virgin soil. Send today for NEW Book and let us help you. It's FREE.
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SO BIG--By Edna Ferber

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YES, well tomatoes are ripe, too, and that comes before huckleberries. There's the whole patch to clean up this afternoon by four."

Selina looked up, glanced at Pervus's face, at the boy's, said nothing. The look said, "He's a child. Let him go, Pervus."

Dirk flushed with disappointment. They were at breakfast. It was barely daybreak. He looked down at his plate, his lips quivered, his long lashes lay heavy on his cheeks. Pervus got up, wiped his mouth with the back of his hand. There was a hard day ahead of him. "Time I was your age, Sobig, I would think it was an easy day when all I had to do was pick a tomato patch clean."

Dirk looked up then, quickly. "If I get it all picked can I go?"

"It's a day's job."

"But if I do pick the patch—if I get through early enough—can I go?"

In his mind's eye Pervus saw the tomato patch, more scarlet than green, so thick hung the fruit upon the bushes. He smiled. "Yes. You pick them tomatoes and you can go. But no throwing into the baskets and getting 'em all soiled up."

Secretly Selina resolved to help him, but she knew that this could not be until afternoon. The berry patches were fully three miles from the De-Jong farm. Dirk would have to finish by three o'clock, at the latest, to get there. Selina had her morning full with the housework.

He was in the patch before six; fell to work, feverishly. He picked, heaped the fruit into hillocks. The scarlet patches glowed, with an economy of gesture calculated to the fraction of an inch. He picked, stooped, heaped the mounds in the sultry heat of the August morning. The sweat stood out on his forehead, darkened his blond hair, slid down his cheeks that were pink, then red, then tinged with a purplish tone beneath the summer tan. When dinner time came he gulped a dozen alarming mouthfuls and was out again in the broiling noonday glare. Selina left her dinner dishes unwashed on the table to help him, but Pervus intervened. "The boy's got to do it alone," he insisted.

"He'll never do it, Pervus. He's only eight."

"Time I was eight—"
He actually had cleared the patch by three. He went to the well and took a huge draught of water; drank two great dipperfuls, lipping it down thirstily, like a colt. It was a cool and delicious beyond belief. Then he sloshed a third and a fourth dipperful over his hot head and neck, took an empty lard pail for berries and was off down the dusty road and across the fields, running fleetly in spite of the quivering heat waves that seemed to dance between fiery heaven and parched earth. Selina stood in the kitchen doorway a moment, watching him. He looked very small and determined.

He found Geertje and Jozina, surfeited with fruit, berry stained and bramble torn, lolling languidly in Kuyper's woods. He began to pick the plump blue balls but he ate them listlessly, though thriftily, because that was what he had come for and his father was Dutch. When Geertje and Jozina prepared to leave not an hour after he had come he was ready to go, yet curiously loath to move. His lard pail was half filled. He trotted home laboriously through the late afternoon, feeling giddy and sick, with horrid pains in his head. That night he tossed in delirium, begged not to be made lie down, and perilously near to death.

Selina's heart was an engine pumping terror, hate, agony through her

veins. Hate for her husband who had done this to the boy.

"You did it! You did it! He's a baby and you made him work like a man. If anything happens to him! If anything happens to him!"

"Well, I didn't think the kid would go for to do it. I didn't ask him to pick and then go berrying. He said could he and I said yes. If I had said no it would have been wrong, too, maybe."

"You're all alike. Look at Roelf Pool! They tried to make a farmer of him, too. And ruined him."

"What's the matter with farming? What's the matter with a farmer? You said farm work was grand work, once."

"Oh, I did. It is. It could be. It—Oh, what's the use of talking like that now! Look at him! Don't, Sobig! Don't, baby. How hot his head is. Listen Is that Jan with the doctor? No. No, it isn't. Mustard plasters. Are you sure that's the right thing?"

It was before the day of the omnipresent farmhouse telephone and the farmhouse Ford. Jan's trip to High Prairie village for the doctor and back to the farm meant a delay of hours. But within two days the boy was again about, rather pale, but otherwise seeming none the worse for his experience.

That was Pervus. Thrifty, like his kind, but unlike them in shrewdness. Penny wise, pound foolish; a characteristic that brought him his death. September, usually a succession of golden days and hazy opalescent evenings on the Illinois prairie land, was disastrously cold and rainy that year. Pervus's great frame was racked by rheumatism. He was forty now, and over, still of magnificent physique, so that to see him suffering gave Selina the pangs of pity that one has at sight of the very strong or the very weak in pain. He drove the weary miles to market three times a week, for September was the last big month of the truck farmer's season. After that only the hardier plants survived the frosts—the cabbages, beets, turnips, carrots, pumpkin, squash. The roads in places were morasses of mud into which the wheels were likely to sink to the hubs. Once stuck you had often to wait for a friendly passing team to haul you out. Pervus would start early, detour for miles in order to avoid the worst places. Jan was too stupid, too old, too inept to be trusted with the Haymarket trading. Selina would watch Pervus drive off down the road in the creaking old market wagon, the green stuff protected by canvas, but Pervus wet before ever he climbed into the seat. There never seemed to be enough waterproof canvas for both.

"Pervus, take it off those sacks and put it over your shoulders."

"That's them white globe onions. The last of 'em. I can get a fancy price for them but not if they're all wetted down."

"Don't sleep on the wagon tonight, Pervus. Sleep in. Be sure. It saves in the end. You know the last time you were laid up for a week."

"It'll clear. Breaking now over there in the west."

The clouds did break late in the afternoon; the false sun came out hot and bright. Pervus slept out in the Haymarket, for the night was close and humid. At midnight the lake wind sprang up, cold and treacherous, and with it came the rain again. Pervus was drenched by morning, chilled, thoroughly miserable. A hot cup of coffee at four and another at ten when the rush of trading was over stimulated him but little. When he reached home it was mid-afternoon. Beneath the bronze wrought by the wind and sun of many years the gray-white of

sickness shone dully, like silver under enamel. Selina put him to bed against his half-hearted protests. Banked him with hot water jars, a hot iron wrapped in flannel at his feet. But later came fever instead of the expected relief of perspiration. Ill though he was he looked more ruddy and hale than most men in health; but suddenly Selina, startled, saw black lines like gashes etched under his eyes, about his mouth, in his cheeks.

In a day when pneumonia was known as lung fever and in a locality that advised closed windows and hot air as a remedy, Pervus's battle was lost before the doctor's hooded buggy was seen standing in the yard for long hours through the night. Toward morning the doctor had Jan Steen stable the horse. It was a sultry night, with flashes of heat lightning in the west.

"I should think if you opened the windows," Selina said to the old High Prairie doctor over and over, emboldened by terror, "it would help him to breathe. He—he's breathing so—he's breathing so—" She could not bring herself to say so terribly. The sound of the words wrung her as did the sound of his terrible breathing.

PERHAPS the most poignant and touching feature of the days that followed was not the sight of this stricken giant, lying majestic and aloof in his unwonted black; nor of the boy Dirk, mystified but elated, too, with the unaccustomed stir and excitement; nor of the shabby little farm that seemed to shrink and dwindle into further insignificance beneath the sudden publicity turned upon it. No; it was the sight of Selina, widowed, but having no time for decent tears. The farm was there; it must be tended. Illness, death, sorrow—the garden must be tended, the vegetables pulled, hauled to market, sold. Upon the garden depended the boy's future, and hers.

For the first few days following the funeral one or another of the neighboring farmers drove the DeJong team to market, aided the blundering Jan in the fields. But each had his hands full with his own farm work. On the fifth day Jan Steen had to take the garden truck to Chicago, though not without many misgivings on Selina's part, all of which were realized when he returned late next day with half the load still on his wagon and a sum of money representing exactly zero in profits. The wilted left-over vegetables were dumped behind the barn to be used later as fertilizer.

"I didn't do so good this time," Jan explained, "on account I didn't get no right place in the market."

"You started early enough."

"Well, they kind of crowded me out, like. They see I was a new hand and time I got the animals stabled and come back they had the wagon crowded out, like."

Selina was standing in the kitchen doorway, Jan in the yard with the team. She turned her face toward the fields. An observant person (Jan Steen was not one of these) would have noted the singularly determined and clear-cut jaw-line of this drably calicoed farm woman.

"I'll go myself Monday."

Jan stared. "Go? Go where, Monday?"

"To market."

At this seeming pleasantry Jan Steen smiled uncertainly, shrugged his shoulders, and was off to the barn. She was always saying things that didn't make sense. His horror and unbelief were shared by the rest of High Prairie when on Monday Selina literally took the reins in her own slim work-scarred hands.

"To market!" argued Jan as excitedly as his phlegmatic nature would permit. "A woman she don't go to market. A woman—"

"This woman does." Selina had risen at three in the morning. Not only that, she had got Jan up, grumbling. (Continued on page 325).

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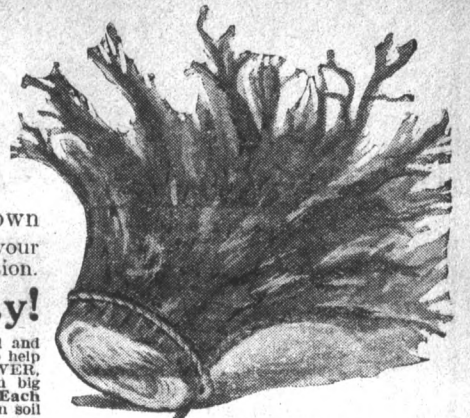
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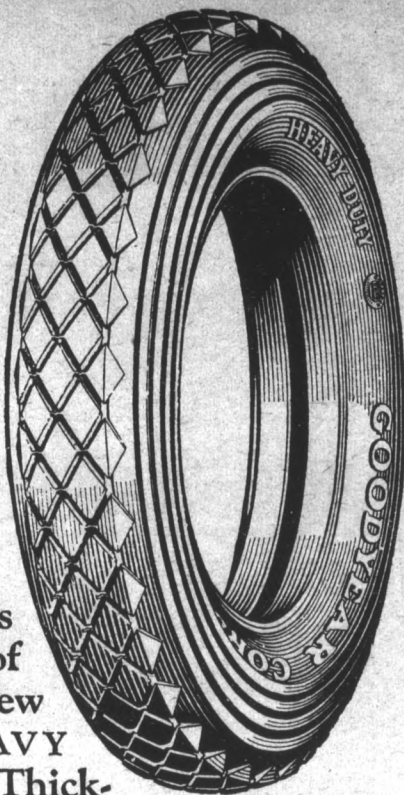
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On the Cross

Our Weekly Sermon—By N. A. McCune

SUNDAY SCHOOL LESSON FOR MARCH 8.

SUBJECT:—The Savior on the Cross. Luke 23.33 to 46.
GOLDEN TEXT:—He that spared not His own Son, but delivered Him up for all, how shall He not also with Him freely give us all things? Rom. 8.32.

THERE are two passages that go to the heart of the teaching about the Cross of Christ. One is from Philippians: "—Christ Jesus; who, being in the form of God, thought it not robbery to be equal with God; but made Himself of no reputation, and took upon Him the form of a servant, and was made in the likeness of men; and being found in fashion as a man, he humbled Himself, and became obedient unto death, even the death of the cross." The other is from Hebrews: "We see Jesus, who was made a little lower than the angels for the suffering of death, crowned with glory and honor; that He by the grace of



God should taste death for every man." Ponder the phrases: "humbled Himself"—"became obedient unto death"—"the death of the cross"—"taste death;" think of that! taste it "for every man." Of course, no one will ever be able to explain the Cross. It is beyond human terms. Volumes, libraries, have been written about it. More will be written. But the inmost

secret of it cannot be put into language, I do not believe. The nearest anyone can come to understanding it is to live the life of the Cross; to follow Christ so closely that the Savior's life becomes his life. Some men, too, have passed through the black waters of persecution or have suffered the loss of goods for the sake of some great cause come to know its deep meanings.

Some great cause, God's new Messiah, Offering each the bloom or blight, Parts the goats upon the left hand, And the sheep upon the right, And the choice goes by forever Twixt that darkness and that light.

One of the best chapters on this subject is, "The Choice of the Cross," in the little book, "The Jesus of History," by Dr. T. R. Glover, of England. I intend to take up some of the points he makes, and I want to begin with a quotation. What did the choice of the cross mean? "It meant, of course, physical pain. He, with open eyes, chose physical pain, heightened to torture, not escaping any of the suffering which anticipation gives—that physical horror of death, that instinctive fear of annihilation, which nature suggests of itself. He took the course of action that would most severely test His disciples; one at least revolted, and we have to ask what it meant to Jesus to live with Judas, to watch his face, to recognize his influence in the little group—yes, and to try to win him again and to be repelled. 'He learnt by the things He suffered' that Judas would betray Him; but the hour and place and method were not so evident, and when they were at last revealed—

The Farm Loan Plan

How It Serves the Farmer

CONGRESS passes the Federal Farm Loan Act which became effective in 1917. Statistics show that \$1,535,198,000 had been loaned to the American farmers through land banks organized under the Act to December 31, 1924. This represents about one-eighth of the farm mortgages existing in the United States.

The Act provided for a long-time loan with small semi-annual payments, insuring to the borrowing farmer protection against frequent renewal charges and insuring him a low rate of interest.

It seems that only a small percentage of the borrowing farmers know where and how to obtain a loan from a Joint Stock Land Bank. The county agents and local banks in some cases are not familiar with the operation of these banks. However, the loan is becoming more popular and questions are being asked as to who may avail themselves of a loan made on a plan extending over a period of from thirty to forty years, and how they are secured.

These loans are made upon direct application to the land bank or through the local banks acting as their agents.

The land banks are not in position to buy farms or furnish more than approximately fifty per cent of the capital invested in a farm. The Act provided that a loan of fifty per cent of the value of the land, and twenty per cent of the insurable buildings could be made; the land and buildings to be appraised separately. A loan cannot be made except where the security is ample, because the bonds issued

against these loans as security, are sold to investors who have the right to expect these loans to be carefully made. The investor, through the purchase of the bonds, loans his money on farms in the rural communities, partly because he feels it his duty to assist the agricultural industry, for he considers this industry the basic one, and his property depends indirectly, if not directly, upon the prosperity of the agricultural industry.



A Joint Stock Land Bank operating in a state is a means of bringing capital from the large cities to the rural communities. During the past year a Joint Stock Land Bank located in this state has loaned \$2,000,000 to the borrowing farmers in the territory in which it operates. Very few of the bonds representing this amount of capital were sold within the state.

This plan of loan is becoming popular with the local banks in the rural sections because they have been requested to furnish capital for short-time loans and see the advantage of having their own capital in a more liquid loan than a farm mortgage.—O. P. G.

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Pittsburgh, Pa.

what did it mean to be kissed by Judas? Do we feel what he felt in the so-called trials—or was he dull and numbed by the catastrophe? How did He bear the beating of triumphant hatred upon a forsaken spirit? How did the horrible cry, 'Crucify Him! crucify Him!' break on his ears—on his mind? When the Lord turned and looked upon Peter, what did it mean? How did He know that Peter was there, and what led Him to turn at that moment? Was there in the Passion no element of uneasiness again about the eleven on whom he had concentrated his hopes and his influence—the eleven of whom it is recorded, that 'they all forsook Him and fled' (Mark XIV.50)? No hint of dread that his work might indeed be undone? What pain must that have involved? What is the value of the Agony in the Garden, of the cry, 'Eloi, Eloi, lama sabachthani,' (Mark XV.34)? When we have answered, each for himself, these questions, and others like them that will suggest themselves—answered them by the most earnest efforts of which our natures are capable—and remembered at the end how our natures fall short of His, and told ourselves that our answers are insufficient—then let us recall, once more, that He chose all this."

THE Cross, we say, makes forgiveness possible. Of course, just how, we do not know. Forgiveness is not the easy, unthinking thing some folks seem to imagine it is. Christ may forgive, but how about the past, on our side? Can we get back the moral quality we have lost? He says that forgiveness is like the relations between father and son. When forgiveness takes place, the Father goes to work with the son to try to mend the past. Of course, if a very bad crop has been sown, it must be reaped. But the Father comes in to help. And with such a Helper, things begin to go better. Even when the results of sin have gotten out into other lives, the Father will still help. Think of the prodigal son. The old father did all he could for him, did it joyously, quickly, and asked others to join in the merrymaking.

This all becomes possible because of Christ's love of men. He does not lose the individual in the mass. He never does that, something that most of us do every day. Still further, he has unbounded faith in God. To Peter He said, "You think like a man and not like God" (Mark VIII.33). He saw in God what we do not. And this is exactly one of the great meanings of the Cross. It shows us God, as nothing else does. If one wants to learn what the Christian God is like, let him stand for a while in Gethsemane. Then let him go outside the city to Golgotha. Let him head those words on the Cross. Let him remember that it was His love of humanity that led Christ to this dreadful experience. Calvary is the steep, winding way that leads to God. The medieval practice of religious folk was to spend hours meditating on the Passion of Christ. For this purpose images of Christ were placed in locations where the eye would easily see them. This suits not our hasty, matter-of-fact age. But the necessity of thinking on the meaning of the Passion is as incumbent on us as ever, if we really want to get at the meaning of it, and draw its lessons for our guidance.

THERE were seven different sayings as our Lord hung on the cross. These are usually called, "The Seven Words on the Cross." These are, "Forgive them, for they know not what they do"; "Today shalt thou be with me in Paradise"; "Behold my Mother!"; "My God, my God, why hast Thou forsaken Me?" Of this the late Sir W. Robertson Nicoll said, "We feel with trembling hearts that we are confronted here with the central mystery in the life of God and in the story of the universe. Our iniquities took such hold on him that he could not see

god. The time had come when He was to know in all its horror what it was to be the representative of our fallen humanity. Had He not thus trodden the wine-press alone, there would have been for us no salvation." The fifth word, "I thirst," came when He had hung in agony for six hours. John alone records the sixth, "It is finished." The last, "Father, into Thy hands I commend my spirit," is the final utterance which shows His complete confidence in His Father. The cloud has passed away. He knows to Whom He is going.

SO BIG.

(Continued from page 323).

Dirk had joined them in the fields at five. Together the three of them had pulled and bunched a wagon load. "Size them," Selina ordered, as they started to bunch radishes, beets, turnips, carrots. "And don't leave them loose like that. Tie them tight at the heads, like this. Twice around with the string, and through. Make bouquets of them, not bunches. And we're going to scrub them."

High Prairie washed its vegetables desultorily; sometimes not at all. Higgedly piggledly, large and small, they were bunched and sold as vegetables, not objects d'art. Generally there was a tan crust of good earth coating them which the housewife could scrub off at her own kitchen sink. What else had housewives to do!

Selina, scrubbing the carrots vigorously under the pump, thought they emerged from their unaccustomed bath looking like clustered spears of pure gold. She knew better, though, than to say this in Jan's hearing. Jan, by now, was sullen with bewilderment. He refused to believe that she actually intended to carry out her plan. A woman—a High Prairie farmer's wife—driving to market like a man! Alone at night in the market place—or at best in one of the cheap rooming houses! By Sunday somehow, mysteriously, the news had filtered through the district. High Prairie attended the Dutch Reformed church with a question hot on its tongue and Selina did not attend the morning services. A fine state of things, and she a widow of a week! High Prairie called at the DeJong farm on Sunday afternoon and was told that the widow was over in the west sixteen, poking about with the boy Dirk at her heels.

The Reverend Dekker appeared late Sunday afternoon on his way to evening service. A dour dominie, the Reverend Dekker, and one whose talents were anachronistic. He would have been invaluable in the days when New York was New Amsterdam. But the second and third generations of High Prairie Dutch were beginning to chafe under his old-world regime. A hard blue eye, had the Reverend Dekker, and a fanatic one.

"What is this talk I hear, Mrs. DeJong, that you are going to the Haymarket with the garden stuff, a woman alone?"

"Dirk goes with me."

"You don't know what you are doing, Mrs. DeJong. The Haymarket is no place for a decent woman. As for the boy! There is card-playing, drinking—all manner of wickedness—daughters of Jezebel on the street, going among the wagons."

"Really!" said Selina. It sounded thrilling, after twelve years on the farm.

"You must not go."

"The vegetables are rotting in the ground. And Dirk and I must live."

"Remember the two sparrows. 'One of them shall not fall on the ground without'—Matthew X-29."

"I don't see," replied Selina, simply, "what good that does the sparrow, once it's fallen."

(Continued next week).

Boast not thyself of tomorrow; for thou knowest not what a day may bring forth.



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KNOWLEDGE is power! The more familiar you are with the needs of your soil the better able you are to raise profitable yields from it. Muck soil was formerly regarded as waste, but now we know that good drainage and the right kind of fertilizer result in paying yields.

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Mr. L. E. Davis, of Van Buren County, Michigan, proved the value of potash in an experiment with onions on three plots. One plot was not fertilized; another was fertilized with a mixture without potash; while a third plot was fertilized with a complete mixture containing 10% potash. The plot fertilized with 1,200 lbs. per acre of potash produced 72 bushels more than the plot fertilized with the mixture without potash. Figured in dollars and cents, the addition of \$7.20 worth of potash, brought an extra income of \$72.00 per acre—a net gain of \$64.80. POTASH PAYS!

The Wisconsin Experiment Station recommends 400 to 600 lbs. per acre of a 0-12-12 or 0-8-24 fertilizer for onions in muck soil. And the Michigan Experiment Station recommends 800 to 1,000 lbs. of a 0-12-12 or 2-8-16 mixture. Use Potash on your muck crops this year.

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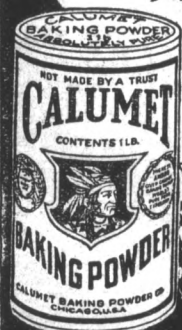
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Woman's Interests

Grown-ups go to School

Experience of Others Proves Extension Work to be Interesting.

Mrs. Louise Campbell

State Home Demonstration Leader

HOME Economics Extension Service is a service which brings the work of the colleges of America to the homemakers in their homes.

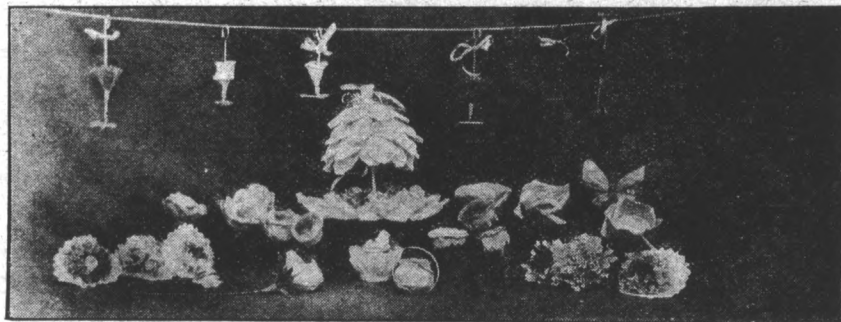
Isn't it a blessing that our mental growth need not cease with our physical; that, as years pass, life becomes more and more interesting and our knowledge increases? A woman of ninety years recently said that if older people wish to retain their mental faculties, and if the world wishes to use the valuable contributions that can be given by the thought and experience of older people, there should be a compulsory school law for them.

It behooves us, then, to be careful and avoid the time when we are satisfied just to sit and rock and rock. It's a sure sign that we are in a rut mentally, and, as you know, it takes considerable will power to get out of that rut, and well onto the road of learning again. Because of a desire to meet this educational need, the Smith-Lever Act has been passed. This law au-

thorizes college extension service for adults in the forty-eight states of the Union. Through this service, men and women on their farms and in their homes may continue their education while carrying on their life work. County agents, home demonstration agents and college specialists are exerting every effort to spread the gospel of better homes and farm improvement in rural communities.

Our local leaders express great joy and satisfaction in being able to conduct extension meetings in their own communities. There is a thrill of taking an active part in promoting a better agriculture in Michigan.

Local Leaders Discover Themselves.



These Party Favors Were Made by Women Interested in Extension Work After Only a Few Hours Instruction.

thorizes college extension service for adults in the forty-eight states of the Union. Through this service, men and women on their farms and in their homes may continue their education while carrying on their life work. County agents, home demonstration agents and college specialists are exerting every effort to spread the gospel of better homes and farm improvement in rural communities.

Liberates Homemaker's Time.
The adoption of these better practices as a result of this information not only brings about more efficiency in the operation of home duties, but also liberates time of the homemaker for developing the soul of the home, and becoming a better companion for her family and a better citizen in her neighborhood.

Home life in the community will never reach the highest ideals until farm women can have more of the things that contribute to physical, and spiritual well being. Home Economics Extension Work is giving consideration to the homes. It is bringing farm women together for study, social purposes and recreation.

A well defined program of work in household management, clothing and nutrition has been carried on for the past year in both the northern and southern peninsulas of Michigan.

Group Instruction Efficient.
In order to make this service available to a larger percentage of women, the local leader method which has been so successfully used in other states has been adopted in our own.

Groups of women numbering from twelve to twenty, depending upon the subject matter given, receive instruction directly from the home demonstration agents and home economics specialists. These women in turn pass the instruction on to corresponding

Our local leaders express great joy and satisfaction in being able to conduct extension meetings in their own communities. There is a thrill of taking an active part in promoting a better agriculture in Michigan.

One local leader said: "When the home demonstration agent told us that we were to have an all-day meeting I didn't see what she could give us new to take up the whole day, but I declare I never spent such a busy day in all my life, and I wouldn't have missed it for anything."

Local leader work makes possible a more equal distribution of time and effort of all field agents, and it gives a large number of homemakers an equal chance to share in the benefits of Home Economics Extension Service. It also develops unknown talents and sociability, and lends mental stimulation in that great art of home making.

Aims of Extension Service.
We agree with Dr. C. B. Smith, Chief of Office Extension Work, U. S. Department of Agriculture, Washington, D. C., who said that the great goal in extension work is to promote a social, educational and spiritual home and community life that meets life's needs. It is not enough to grow more crops and make more money. Extension work is seeking to promote a contented people, a people who find satisfaction in their work, in each other, in the glory of the soil, the growing crops, the harvests, the bounteous table, and the neighborly visit. We want the women of Michigan to consider the extension service in home economics as their own. It is not only an opportunity to get the information desired, but also an opportunity to serve. Serving in the home, in the neighborhood, and in the community is a great satisfaction.

Good Mattress and Springs

When Buying Them Look to These Points

TOO many housewives only think of their mattress or springs when it becomes necessary to purchase one. However, that time may be postponed considerably if the proper care is taken of both the spring and the mattress from the time they are first brought into the house. But with the best of care they will, in time, have to be replaced, and when they do it will be well to know a few facts about them that may help you to make a wise selection.

The spiral spring is used perhaps more than any other, and while they give universal satisfaction, they are hard to keep clean. If a spiral in one of these springs becomes broken it may be replaced, thus prolonging the life of the springs.

The springs made of sections of wire, and having a spring at the end of each line of wire, to afford the "spring" are serviceable and are not high in price. The life of these springs may be lengthened by replacing the little springs.

The woven wire springs, while inexpensive, are not really practicable. They may be improved by running steel rods along the sides to prevent stretching.

The box spring, while the most comfortable, is also the most expensive; but it is ideal for cold climates as it makes for a warm bed. It is similar to a spiral spring and has a thin mattress over it. The whole is then encased in a ticking cover.

Mattresses are quite as important as springs. Perhaps the hair-stuffed are the most popular, but they are

high in price. Rough handling will spoil this sort of mattress quicker than anything else, as it breaks the long hairs and thus causes it to lose its spring and buoyancy. For this reason a stick should never be used to beat the dust out of a hair-stuffed mattress. It should be beaten—out of doors—with a flat rattan beater at least once a month, and it should be turned every day.

The cheap mattress stuffed with corn husks, grass or hay, are comfortable and satisfactory as long as they do not lump, but that is not long. In the end, the cheap mattress is a luxury.

The cotton-felt mattress is comfortable and inexpensive. It is built of layers of cotton, and then covered with a tick. If they are taken care of, and sunned and aired frequently, they will last for years. We have three of them that have been in constant use for five years and are still good. I have mended small holes in the ticking covers, but the cotton has never packed. But we never use a mattress without putting a comforter or a pair of blankets between the spring and mattress.

HOME HINTS.

THUMB tacks hold the ironing sheet securely in place and are easily removed.

Add your shortening to a frozen egg and it will beat up as smooth as any.

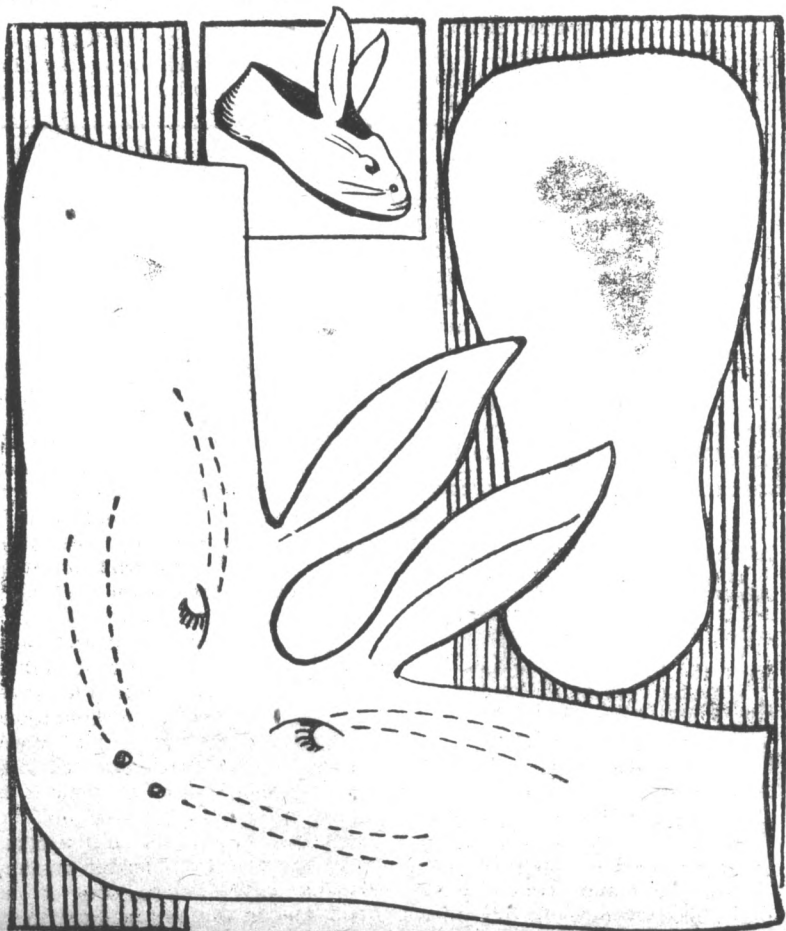
I slice the hams moderately thick, pack in a crock, cover, and place in the oven until it shrinks from the edge. Put a basin containing a weight in the top of the crock until cold. Remove basin and cover thick with lard. This is easier and the meat nicer than when fried to pack down.—Mrs. E. H.

Bunny Booties

THE pattern for these cunning booties cannot be given exactly the size, to transfer, for that depends on the exact length of the precious little feet. The sole can be cut from one of his own shoe soles, then the upper is similar to the drawing here shown, only of course it must be as long a line from the center of the bunny nose to the back as around half the sole.

First cut a pattern that fits from a square folded diagonally. Eiderdown may be used with the edges ribbon bound, or felt with a shallow blanket stitch.

To transfer the design use blue carbon paper. If you wish to make a larger size extend the sides at the heel.



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Shut Doors and Open Ones

By Hazel B. Girard

JIMMY was just a plain, new-fashioned American lad, so bang! bang! bang! went the doors when Jimmy went through the house. Often, however, he left a row of open doors behind him.

How characteristic—how dominant of children! Life to them is just one open door after another. They are always blowing limitless bubbles and chasing potential rainbows—never realizing that authentic greatness comes only through achievement.

It has long been the juvenile idea that some day, not far distant—out there into what we know as the future, that greatness awaits every little girl and boy who has yearned for it. They believe that when manhood and wom-

parents whose hearts are verily breaking because they cannot give their children the opportunities they would love to bestow. But greater are the number of parents who are indifferent to their children's inclinations, thus shutting the doors of the child's ambitions, forever.

There is nothing under the scintillating, radiating sun that will squelch a farm boy's ambition quicker than to have his persistent over-indulgent parents nag and rebuke him for not taking to carpentry "like Uncle Frank." At the same time his little heart is yearning, his little fingers are tingling to have a pig to call his very own—so that some day he may go to agricultural college—learn about legumes, crop rotation—be a real dirt farmer.

Likewise, there is nothing that will squelch the ambition of a sun-kist daughter quicker than to have the parents picture to her the supreme happiness and independence of an old maid school teacher, when she is purely of the domestic art variety. She can make lemon pies and Palm Beach salads that would have staggered Aladdin in the balmy days of the wonderful lamp—can negotiate garments that would have capsized Diogenes completely out of the traditional tub.

Parents should always be on the alert to observe the paramount abilities and ambitions of their children. No one can be a superb success in a vocation not to his liking.

Study carefully and diligently the blue print of your child, thus far; then proceed to shut the doors that should be shut and fling wide open the voluntary ones.

HAPPINESS never lays its finger on its pulse. If we are to steal a glimpse of its features it disappears.—Alexander Smith.

anhood is thrust upon them, they have only to shoulder assumed greatness and go on. They forsee no Rubicons to cross, no Waterloos to meet.

There is one beautiful thing, however, about those idle, erroneous dreams of childhood—they are always uprighteous.

No real-hearted, whole-hearted child ever dreams of becoming a bank robber, bootlegger or tramp. Their aspirations always tell them that some day they will be a musician, evangelist, doctor, or something of equivalent importance.

To be sure, there are the reluctant

Cooperative Housecleaning

A Method That Proved Efficient in One Neighborhood

FOR years the "men folks" had helped each other during the busy season, had cooperated to the extent of using one tractor plow, one hayloader and other expensive farm machinery and had found that this in a measure solved their farm help question. Last spring their wives decided that cooperation would work as well inside the house as out, especially at house cleaning time, and the experiment worked out so well that it will become a permanent plan.

There were five women, living each on a farm but at no great distance from each other, and as time for the annual spring cleaning arrived they met and discussed the problem as women will.

Finally one suggested, that as no woman can go into another's house and clean exactly as that one wishes, in fact, if the truth be told, that no woman likes to have even her dearest neighbor poking into unused closets and sweeping dark corners, that another and better way of helping could be devised.

Every woman knows that uninterrupted cleaning is a pleasure, but that the stopping to get meals, to put the

baby to sleep, or to watch the older children is nerve wracking when she is trying to get mattresses beaten and bedding in before night.

The plan devised by these five gave each a week in which to clean and dates were arranged ahead. The first two days the women cleaned bureau drawers, cupboards, closets, etc., work that did not interfere in any way with meal getting. The third and fourth

NO language can express the power and beauty and heroism of a mother's love.—Chapin.

days were given over to real housecleaning. On the third day one neighbor entertained her and her family for dinner, the provision being that she should not dress but should come exactly as from her work, the men were under the same obligation, and the children came directly from school.

The second day another neighbor was hostess, the guest going back to her work rested and refreshed.

In two families there were children under school age, and these were taken to the home of one of the women (not the one who entertained for dinner) and kept during the day, being returned to their own home by the one who cared for them, instead of the tired mother going for them.

At the end of the cleaning these five women found that what had been most dreaded of tasks, under the new way was a real pleasure, and that her house cleaning week had put no severe strain upon either her strength or the patience of her family.—Mrs. L. M. T.

It has been said that progress lies in thinking well of your business, and most women consider it a privilege rather than a duty to pass on helpful information they have gained.

ALMOST TIME.

Almost time for bird songs.

In the shady wood;

Almost time for flowers

My! don't they sound good?

After all the snow drifts

We've been wading in,

Thru the bleak, cold winter

Wishing spring'd begin?

Guess we'll all be happy

When the robins come,

And among the clover

Bees begin to hum;

And out in the garden

Things begin to grow

Fresh, and crisp, and tender

Down each pretty row.

Almost time for snow bank,

Now, to disappear.

My! but aren't we happy

When the spring dawns near?

—Lillie Flandiers Overholt.



TO MAKE CREAM PUFFS.

Will you please give me a tested recipe for some good cream puffs?—Mrs. P. S.

To make the paste for cream puffs put into a saucepan half cup butter and add gradually, one cup of boiling water. Place over the heat, bring to boiling point, and boil until the butter is thoroughly melted. Then add one cup flour all at once and stir vigorously. Cook until the mass is thick and smooth and does not stick to the sides of the pan, stirring it constantly so that it does not burn. Then remove the paste and allow it to cool slightly. Now add four unbeaten eggs, one at a time, beating in each egg thoroughly, until the mixture is smooth and pliable, before adding the next one. When all eggs have been added beat the mixture well. Grease a baking sheet. If cream puffs are desired, drop the paste by teaspoonfuls on the sheet, one and one-half inches apart. Shape with the handle of the spoon so that they are as nearly circular as possible and slightly piled in the center. Bake thirty-five minutes, when the puffs should be evenly browned, well puffed, dry and light. If cream puffs are baked at too high a temperature for too short a time they will shrink upon being removed from the oven.

Whipped cream, custards, jelly, or crushed sweetened fruits may be used as filling.

CLEANING THE WASHING MACHINE.

ONE of the bugbears of the housewife's washday is cleaning the washing machine. The suds unites with the free perspiration oils contain-

ed in the pores of the fabric to form a compound insoluble in water. This deposit, or scum, collects on the cylinder and tub and is usually removed with kerosene or cleaners. This requires the removal and replacement of the cylinder, which is a real task.

Cleaning the washing machine thoroughly after doing the washing can be easily accomplished without unnecessary work. Drain the dirty water and dissolve a heaping tablespoonful of lye in sufficient clean water to cover the bottom of the cylinder two inches. Start the motor and let it run for two or three minutes. Cleaning the washing machine by this method will save you time and effort with extremely satisfactory results.

SOUPS ADD VITAMINES TO DIET.

IF your daily menu does not contain a sufficient supply of vegetables, try this recipe.

Tomato Soup.

1 qt. tomatoes	1-8 tsp. soda
1 pint water	3 tb. fat, butter or substitute
12 pepper corns	3 tb. flour
5 bay leaves	2 tsp. salt
4 cloves	1/4 tsp. pepper
1 lb. onion	
1 lb. sugar	

Simmer first seven ingredients in a pan a half hour. Strain and add soda. There should be one quart of liquid. Combine last four ingredients as in white sauce, add tomatoes and when mixture boils, serve.

THE SMALL HOME.

THE price of the book, "The Small Home," published by the Robert McBride Company, New York, is \$2.50. A set of blue prints for any plan illustrated is \$2.00 extra.



Doings in Woodland

The March Hare

THE month of March had come. The snow was not so deep in Woodland. The merry little breezes did not blow as cold and the sun shone warmer and warmer. The March Wind whistled little spring songs in the bushes and brambles.

Rolly Rabbit was so anxious to wear his new spring clothes with his first long trousers, that he just couldn't wait until Spring really did come.

"See if I care how the March Wind blows," he said as he ventured forth.

His long straight trousers reached down to his toes, his long coat with the tail cut like that of the swallow, floated out behind. His shiny new hat glistened in the sun. Rolly was very proud of his new

hickory cane with its acorn top. To complete all, he even had a monocle fashioned from the bark of the birch.

And so Rolly Rabbit, as the March Hare, sallied forth toward the Woodland village with his spring toggery.

The March wind blew but Rolly Rabbit strutted on.

"I'll steal your monocle," said the jealous March Wind.

"No you won't," said Rolly Rabbit as he grasped it tighter.

"Blo-ey! Blow-ow-oo!" said the March Wind and away went Rolly's monocle.

"I'll steal your hickory cane with its acorn top," whistled the March Wind.

"No you won't," said Rolly Rabbit as he held it fast.

"Blo-ey! Blow-ow-oo!" breathed the March Wind and Rolly Rabbit had a hickory cane no more.

"I'll steal your new hat," said the March Wind.

"No you won't," said Rolly Rabbit as he clung to his treasured hat.

"Blo-ey! Blow-ow-oo!" sang the March Wind and away went Rolly Rabbit's hat right into the pond.

"I'll blow your ears off, too," laughed the March Wind as Rolly Rabbit, the March Hare, became very angry.

"No you won't," said Rolly Rabbit.

"Blo-ey! Blow-ow-oo!" whistled the March Wind.

"Blo-ey! Blow-ow-oo!" whistled the March Wind still again.

Try as hard as he might the March Wind could not blow away the March Hare's ears. But the March Hare went back home and promised never to tempt the March Wind again.



Farming the Nation's Power Crop

GOOD SOIL alone won't grow a crop. It must be plowed and harrowed, seeded and cultivated.

This was the hard fact faced by a small group of men in Chicago forty years ago. Their soil was the future growth of America; the crop—electric service.

They knew that unless the best thought of the ablest men in the industry could be put at the service of all, it might never fulfill the high destiny they had hoped for it. Thus it was that these "farmers of power" founded the National Electric Light Association, as a voluntary organization of electric light and power companies. Concerned from the first with questions of economy in production and future development, the Association formed committees of experts, the result of whose research was published for the benefit of all members.

Today, representing ninety per cent of the nation's electric service, three hundred committees are engaged in studying the needs of their communities and the problems of the industry as a whole. In its cooperative program with the Farm Bureau Federation, National Grange, American Society of Agricultural Engineers, Power Farming Association, and the U. S. Departments of Agriculture, Commerce and the Interior, the National Electric Light Association is able to speak for a united industry engaged in working out a practical way of serving that larger group of "farmers" on whom the prosperity of the nation must always depend.

NATIONAL ELECTRIC LIGHT ASSOCIATION

International Prize Winner.

Famous Self-Balancing Bowl.

Imported Melotte

Don't Pay For 4 Months

So that you may see and use the only cream separator with a suspended self-balancing bowl, we will send an imported Belgium Melotte Cream Separator, any model, direct to your farm and you don't pay us for it for 4 months.

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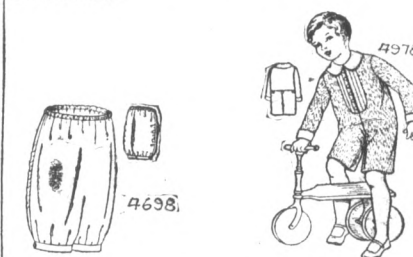
Write today for new Melotte catalog containing full description of this wonderful separator.

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2843 W. 19th St. H. B. BABSON U. S. Mgr.

Michigan Farmer Patterns

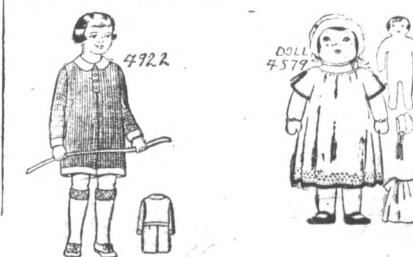
Send twelve cents in either silver or stamps to the Pattern Service Department, Michigan Farmer, Detroit, Mich., for any of these patterns. Be sure to state size wanted, and write your address plainly to avoid delay.

No. 4698—Ladies' Bloomers. Cut in 4 sizes: Small, 27-29; medium, 31-33; large, 35-37; extra large, 39-41 inches waist measure. A medium size requires 1 1/4 yards of 36-inch material. Price 12c.



No. 4978—Child's Play Suit. Cut in 3 sizes, 2, 4 and 6 years. A 4-year size requires 2 1/2 yards of 27-inch material. Price 12c.

No. 4922—Boys' Play Suit. Cut in four sizes, 2, 3, 4 and 5 years. A four-year size requires 2 1/2 yards of 27-inch material. Price 12c.



No. 4579—A New Doll and Garment Outfit. Cut in three sizes for dolls, 12, 16 and 20 inches in length. To make the doll in a 16-inch size requires half a yard of 36-inch material. The dress and cap require 3/4 yard. The cap alone requires 1/4 yard. Price 12c.

The good done by Chamberlain's Perfect Chick Feed reaches into future years. The vigor and fertility of your growing breeders and high production of your layers will reflect the sound constitutions built by this complete food.

It is a Wheat and Oat Meal basis Food, having Ground Meat, Bone, Charcoal and all other essential ingredients.

Everywhere poultry raisers are demanding Chamberlain's Perfect Chick Feed. Thousands have learned it brings the greatest economy in chick raising ever known. It's the one and only dry, granular starting food with Animal Proteins, Buttermilk and Cod Liver Oil—ALL COMPLETE IN ONE SACK. Freedom from disease and freedom from death losses in higher degree than ever before is following its use all around you. It brings amazing results even when used to rear chicks from the shell to maturity entirely indoors without sunshine and without green feed. Learn what this food means to you.

Plan For Success Now

After forty years of constant experiment and observation, Chamberlain's Perfect Chick Feed was developed and perfected in dry, granular form; the form most widely endorsed by Agricultural Colleges and Experimental Stations everywhere. Contains in the right proportion the finest known sources of all the vitamins, proteins and other elements needed to build flesh, bone and feathers. Not one ounce of waste. It's appetizing and palatable. Keeps chicks rustling. Brings splendid circulation, good breathing and finest functioning of the nervous system and the digestive and eliminative organs. Plan now to avoid leg weakness, bowel troubles and all the diseases common where ordinary feeds and corn are used. Get amazing results with this scientifically correct complete baby chick starting food.

F. B. CHAMBERLAIN CO., 157 Vine St., St. Louis.

THE ONLY RIGHT START IS WITH DRY GRANULAR FEED

USE THE ORIGINAL NEVER SUCCESSFULLY IMITATED IN 40 YEARS

DO AS THOUSANDS DO

Act Now!

If your dealer can't supply you, write for prices on 8-13, 25, 50 and 100-lb. sacks of Chamberlain's Perfect Chick Feed. Please send your dealer's name and address also. Write today.

COSTS MORE PER POUND
COSTS LESS PER CHICK



NO CORN—MADE RIGHT—NO BOWEL TROUBLE

BABY CHICKS From World's Greatest Layers LOW PRICES—Catalog Free

Eckhard and Tom Barron W. Leghorns—Heavy Type Brown Leghorns—R. C. and S. C. Rhode Island Reds—Rhode Island Whites—Sheppard's Anconas—Park's Barred Rocks

If you want pure bred chicks that are bred right, hatched right, and shipped right, that grow and will make you a profit, get our new low prices and free catalog before you buy.

Flocks are carefully culled and developed on free range. All chicks are hand picked and inspected, no cripples or weaklings. Every one strong and healthy.

100% Live Delivery—Postage Paid

Satisfaction Guaranteed. Write Now. White Leghorn and Barred Rock pullets after May 1, at low prices.

Knoll's Hatchery, R. R. 12, Box M., Holland, Mich.



STOP! LOOK! BABY CHICKS 100% LIVE DELIVERY

Chicks from healthy pure-bred flocks especially culled for egg production. We have been in business for 13 years. Due to increased demand we have enlarged our plant. 25% down books order.

Varieties	Prices on	50	100	500	1000
Anconas, Wh. & Br. Leghorns		\$7.00	\$13.00	\$62.00	\$120
Br. & Wh. Rocks, S. C. & R. C. Reds		8.00	15.00	72.00	140
Black Minorcas		8.00	15.00	72.00	140
Wh. Wyandottes, Buff Rocks		8.50	16.00	75.00	140
Buff Minorcas 20 cents straight		5.00	9.00	45.00	90

Ref. Royal Oak Savings Bank. Order direct from this ad. in full confidence.

DEAN FARM AND HATCHERY, Box 21, Birmingham, Michigan.



YEARS OF EXPERIENCE

Our 15 years of work and experience in breeding and hatching chicks qualifies us as DEAN in the Poultry Industry. We own and operate a real Poultry Farm of 20 acres, not merely a Hatchery. Our Free Catalog will give you an excellent idea of this Farm—Get it now. We have specialized in White Leghorns for many years.

100% Live Delivery Guar.	Postpaid prices on	25	50	100	500	1000
S. C. White Leghorns, Extra Quality		\$4.00	\$7.50	\$14.00	\$67.50	\$130.00
Barred Rocks, Reds, Anconas		4.25	8.00	15.00	72.00	140.00
White & Buff Rocks, White Wyandottes		5.00	9.00	17.00	80.00	155.00

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DEAN FARM AND HATCHERY, Box 21, Birmingham, Michigan.

TYRONE POULTRY FARM

Let us sell you your 1925 Chicks from pure-bred, select White and Brown Leghorns, Barred, White and Buff Rocks, R. I. Reds, Anconas, Black and White Minorcas, White, Buff, Golden and Silver Wyandottes, White and Buff Orpingtons, Black Spanish, Light Brahmas, etc. Of leading strains such as Barron, Parks, etc.

3000 CHICKS GIVEN AWAY TO OUR CUSTOMERS DURING 1925.

We guarantee 100% Live Delivery. Postpaid. Reference: Commercial State Savings Bank. Before ordering Chicks elsewhere, get our special circular containing our low prices and particulars about the 3000 PRIZE CHICKS.

TYRONE POULTRY FARM, DEPT. 20, FENTON, MICHIGAN.



FIRST QUALITY BABY CHICKS

from Winter laying stock produced by Michigan's old Reliable Hatchery, pioneer breeders and hatchers operating the best equipped and most modern hatchery in the state.

Pure-bred Tom Barron English and American White Leghorns, Anconas, Barred Rocks and R. I. Reds. Strong, well hatched chicks from tested Hoxanized free range stock that make wonderful Winter Layers. Chicks sent by Insured Parcel Post, prepaid to your door. 100 per cent live delivery guaranteed. Seventeen years of experience in producing and shipping chicks, giving absolute satisfaction to thousands. Write for valuable illustrated free catalog and price list. Get lowest prices on best Quality chicks before placing your order.

VAN APPELDORN, R. 7, Holland, Mich.



Feeding for Egg Production

By R. G. Kirby

IN his talk on feeding for eggs during the college poultry meetings, J. A. Hannah stated that making the pullets lay at an early age does not pay. The birds that lay at less than four months of age do not hold up. A good laying mash can be made of equal parts by weight of bran, middlings, corn meal, ground oats and meat scrap. Then add one per cent salt, two per cent ground limestone, and two per cent acid phosphate.

A good scratch grain ration consists of equal parts of cracked corn and whole wheat. Feed a little of the grain in the morning to make the flock exercise and give all they will clean up at night in fifteen or twenty minutes.

Some Feed Substitutes.

Ground wheat can be substituted for the bran and middlings in the dry mash. Barley is always a good corn substitute and can be used in place of the corn meal. The ground oats are needed to furnish bulk to the ration. Ground whole oats look white. If four-fifths of the ground oats consist of hulls the mixture will have a yellowish caste. Clean animal tankage is as good as meat scrap in digestible protein. When plenty of milk is used, you can cut out all of the meat scrap in summer and one-half of the meat scrap in winter.

Use fine salt and work it thoroughly into the mash. Some hens do not eat enough oyster shell. The two per cent limestone helps to prevent soft shelled eggs and the leg weakness which sometimes bothers hens in the spring. The acid phosphate helps the hens to obtain more good from the protein in the feed. Use two per cent of a sixteen per cent acid phosphate to each 100 pounds of the dry mash.

Good buttermilk or skim-milk is worth five cents per gallon for poultry feed. Keep the dry mash before the hens in open hoppers all the time. Another good scratch grain ration consists of two parts corn, two parts wheat, and one part oats. A ration consisting of one part corn, two parts wheat and one part barley is also good. Hens in fifty per cent production need about two ounces of scratch grain and two ounces of mash each day. Hens that put on fat should be culled out.

Weigh Hens.

Study the body weight of the hens. If the layers become light, give them more grain. If they become too heavy, make them eat more mash by reducing the grain. In cold weather the heavy hens may need twice as much scratch grain as mash to keep up their bodily weight and continue laying. Hens need plenty of water, and carrying water is better than feeding snow.

High producing hens need the best of care in order to lay heavily. There are at least five hens in Michigan that are in the 300-egg class. But if four of those hens were given good care and one given poor care, the poorly fed and housed hen might lay about forty eggs and no more. The inherited ability to produce 300 eggs in a year might never show if the hen lacked the material to produce those eggs.

The Pacific Coast poultrymen feed plenty of green feed, even grinding it to force the hens to eat it in larger quantities. Green feed is very essential in stimulating egg production. Feed sprouted oats when the stem sprouts are one-half inch long. Mangels are next best. Slice and feed the mangels in troughs so all the hens will have a chance. Sugar beets are also good. Sliced potatoes and cull apples

are relished by the hens. Hens will not eat quite as much cabbage as mangels. *Dried alfalfa lacks succulence. It contains some vitamins but is not a substitute for green feed.

Don't make the hens eat quack grass in the summer. Swiss Chard is a fine summer green feed when plenty of tender grass is lacking. A 100-foot row of Swiss Chard will keep twenty hens in green feed all summer. If white corn is used in place of yellow corn, be sure to add plenty of green feed to the ration.

CRITICISM OF A UNIQUE CHICKEN BUSINESS.

IN your issue of January 17 you published a communication by "H. R." entitled, "A Unique Poultry Business," and which you give first page prominence.

This article, to my mind, is fraught with danger to the amateur, or beginner, in poultry raising, or the farmer who is looking for profit along the lines of least resistance.

The article is so full of untruths, that to attempt to follow such a line of action would surely bring loss and discouragement.

To get his flocks and avoid the trouble of free range birds in garden and dooryard, he buys "young pullets in the fall when the price goes off."

Young pullets cost more in the fall than at any other time, unless they are culled or June and July hatches, which never amount to much.

Good stock from standard breeding costs from \$2.00 to \$2.50 per bird.

Pullets from farm flocks are rarely fed so as to produce eggs before spring.

"Skim the cream off of the flock by spring." There will be no cream to skim unless he bought early standard bred birds at prohibitive prices.

"Sell the fowls before confinement tells on them." Confinement does not reduce egg production, or weight.

It is increased with careful feeding and plenty of work. Only breeding birds need range and they do not produce as many eggs.

"By careful watching he has been able to get fine young hens as low as a dollar apiece."

I wanted a small flock this winter for table eggs and I attended every farm auction in this county that had pullets, or young laying hens, for sale. I have watched the "ads" in the Michigan Farmer and local country papers, and birds that can be had for "a dollar apiece" are not worth carting home, even for meat value.

"Young hens" in the fall molt and rest and usually do not begin laying before March when eggs begin to decline in price so much that it pays one to buy his table eggs rather than to feed for production.

If one keeps poultry only for spring and summer eggs, he will save money, labor and time by buying them from his neighbor. As for revenue, there is none.

"Fine pure-bred stock for a dollar each." Some stock, I'll say!

Pure-bred stock sells at a dollar per bird for eight-weeks-old pullets, and cheap at that, unless one buys June and July hatches, which are worthless as money makers.

But to pass on to the selling of spring chickens and broilers that he has bought the previous fall and winter.

What kind of a broiler would it be,

First Choice White Leghorn CHICKS

PURE HOLLYWOOD STRAIN

Direct descendants of hens with records of 250 to 290, mated to males from 285-290 egg dams.

also **Hollywood Mated Rural Strain**

Results Count-Read this

In 1922 Mark H. Butler, Albion, Mich., bought 200 Rural Poultry Farm Hollywood Mated chicks. Of the pullets raised, a good number laid more than 250 eggs in their first year and one exceeded the 300 mark. So in 1924 Mr. Butler bought 1,000 more Hollywood Mated chicks.

We have a big file of letters expressing similar enthusiasm of customers over their success with Rural Poultry Farm chicks. (Names on application.)

Anconas--B'd Rocks--Br. Leghorns

Our Leghorn foundation stock came direct from Hollywood farms. Anconas were bred from H. Cecil Sheppard's 300-egg strain.

Large Illustrated Catalog Free

The Rural Poultry Farm
ZEELAND, MICH., R.R. 1, Box 109

Great Northern HIGH GRADE STOCK AT PRICES YOU Can Afford to Pay.

Bred for eggs, not for show feathers. Every chick from our farm is of a proven egg-laying strain. But they win beauty prizes also. Barron White Leghorns, Aristocrat Barred Rocks, Brown Leghorns.

ORDER FROM THESE PRICES.

	50	100	500	1000
White Leghorns	\$8.50	\$16	\$75	\$145
Pedigreed Males, Barred Rocks	9.50	18	85	165
Aristocrat Strain	8.50	16	75	145
Br. Leghorns				
GRADE A.				
White Leghorns	\$7.00	\$13	\$62	\$120
Barred Rocks	8.00	15	72	140
Br. Leghorns	7.00	13	62	120

100% Live Delivery. Catalog Free.

GREAT NORTHERN HATCHERY,
R. 3, Box 56, Zeeland, Mich.

OUT IN FRONT AT CONTEST

The Royal White Leghorn pen at the International Egg Laying contest of 1925 led the entire contest for the first two weeks and after being second in the Leghorn class for ten weeks, again took the Leghorn leadership on Jan. 30, and held it at last reports. High breeding counts. Write for our catalog.

S. P. Wiersma, R. 2, Zeeland, Mich.

FAIRVIEW POULTRY FARM

Guaranteed to be from high producing stock. EGGS--\$5 per 15. From Aristocrat strain exhibition Barred Rocks and Fairview Reds.

CHICKS

\$15 per 100--Special Star Mating, Barron White Leghorns and Mottled Anconas. Selected Utility Rocks and S. C. Reds. \$13 per 100--Selected Grade A Barron White Leghorns and Mottled Anconas. **FAIRVIEW POULTRY FARM, Box 203, Zeeland, Mich.**

Reliable Poultry Farm

Barron White Leghorns
Anconas
White Wyandottes

Fancy Stock at Right Prices

White Leghorns (270-300 ancestry).....\$13.50 per 100
Sheppard Anconas (300-egg strain)..... 13.50 per 100
White Wyandottes (Evergreen strain)..... 18.00 per 100
Odds and ends, broilers.....10.00 per 100
Shipped by parcel post. Safe arrival guaranteed.

RELIABLE POULTRY FARM,
Zeeland, Mich., R. 1, Box 47.

CHICKS OF QUALITY

Blood Tested Flocks. Selected utility mating Barred Rocks, Rhode Island Reds. Also Foreman Strain of Barred Rocks. Delivery guaranteed, bank reference. Write for prices. Krueper Poultry Farm & Hatchery, R. 3, Milan, Mich.

STANDARD CHICKS SUPREME CHICKS

LAYERS! That's what you want. Standard Chicks are from just that kind of flocks. Our strain of Supreme Laying White Leghorns is the result of our many years experience, breeding and selection. They are large sized, long deep wedge shaped bodies, keen alert eyes, large lopped combs. The kind you will be proud of and eventually buy. Shipped postpaid. 100% Live delivery guaranteed. Illustrated catalog sent Free.

STANDARD HATCHERY, Box A, Zeeland, Mich.

GERMOZONE TREATMENT FOR "NECRO" IN HOGS, which has proved such a wonderful remedy, is fully explained in new free book by Geo. H. Lee, inventor of the famous Germozone. Book shows how to "post" your own sick hogs to determine whether "Necro", Worms, Lung Disease, Cholera or what other ailment; how to treat each, etc.--information worth many dollars if for sale. Million copies already requested. Free at leading drug or seed store in your town, or send stamp to the

GEO. H. LEE CO., Dept. 1071 Omaha, Neb.

bought the previous fall or winter and sold in the fall at "fancy prices."

Broilers are not over eight to ten weeks old weighing from a pound and a half to two pounds, hatched in March and April and sold in May, June and July, ranging from fifty cents to thirty-five cents per pound as the season advances.

Broilers in the fall are from June and July hatches, feeble, stringy and tough, not wanted in market and are mighty poor eating.

Springers come along in the fall ranging from three to four pounds, selling from two to three cents a pound over fat hen prices and are not so edible.

But why go on--I hope the "woman with the small farm" doesn't try it, and if this writer made a success of it, it was a miracle that won't happen oftener than we have total eclipses of the sun.--Edward A. Brooks.

LAME HENS.

My chickens seem to go lame. After a day or two there is a whitish diarrhea. They don't eat scarcely anything, just sit huddled up. Have lost three. I feed them oats in litter, and corn is fed chopped up. All the green vegetables they will eat, such as carrots, cabbage and beets. I also cook the oats with potato parings, sometimes give a mash of corn and oats ground together. Their dry mash consists of equal parts of corn meal, ground oats, middlings, bran and meat scraps, but have taken this away as a possible cause. House is tile, and very damp, but has plenty of ventilation.--G. G.

The dry mash you are using is a great help in preventing digestive troubles and would hardly be a cause of the lameness or bowel trouble. Lameness combined with bowel trouble and rapid emaciation is a sign of tuberculosis, although scientists tell us that a laboratory examination is necessary to accurately determine that fact. If you suspect tuberculosis in the flock, perform a postmortem and examine the liver for greyish spots.

If you have a large and valuable flock, it will pay to have a veterinarian make an inspection. In the meantime, isolate all sick birds and those which appear lacking in vigor. Dampness might cause rheumatism which would make the birds lame. A house is usually damp because of lack of ventilation, overcrowding, old litter or soil moisture. The floor should be built up about a foot above the outside soil.

POULTRY IN OTTAWA COUNTY.

COUNTY Agent C. P. Milham, of Ottawa county, addressed the poultrymen at the Round-up Institute, on the poultry industry of his county. He said that Ottawa county is ideal for poultry because of the effect of the lake on temperature. It is ten per cent warmer in winter and ten per cent cooler in summer than in Milwaukee, just across the lake. Eighty per cent of the people are Holland Dutch, who take pride in live stock and poultry and are good feeders.

A large per cent are farm owners and the county contains poultrymen who pay an income tax. Some of the hatcheries turn out about a million chicks per season. The total is close to eight or nine million and will probably reach ten million chicks per year, counting all that are hatched on the small farms. As many as 20,000 chicks are sometimes seen on one truck ready for shipment. They use pre-cancelled stamps on the boxes and load the chicks directly into the cars.

The M. A. C. poultry department has in the last four years done millions of dollars of good in Ottawa county and has done much to make friends for the college. The Michigan poultry house is giving good satisfaction. There are three poultry associations in the county. The Holland association has existed twenty-five years, Zeeland for fourteen years, and Grand Haven for three years.

The FACTS on Pages 17 to 35 of this FREE BOOK--

Mrs. Marie Caron, of Glenview, Ill., fancier of thoroughbred Rhode Island Reds, Red Cloud Strain, says that last season she hatched 200 chicks with hens and raised 189 on Globe Chick Starter. Seven of the chicks were killed by accident, and 4 were weaklings. She says Globe Poultry Feeds are all that is claimed for them and a bit more.

enabled others to raise 95 out of 100 chicks

THE information in this poultry book (copy on request) has enabled thousands of chick raisers to save greater percentages of the chicks hatched. Now available to all. On the pages named you will find vital scientific principles of chick raising not known to the average poultry owner--the ignorance of which has cost poultry raisers millions of dollars.

Foremost authorities have assisted in writing this booklet "POULTRY PROFITS." Whether your flock is large or small, every extra dollar of profit you can make in chick raising or egg production means just that much extra in your bank account. "POULTRY PROFITS" contains the boiled-down "best ways" of making more money out of your poultry.

DICKINSON'S GLOBE POULTRY FEEDS

Chick Starter
Egg Mash
Growing Mash
Fattening Mash
Molting Mash
Chick Scratch
Growing Scratch
Poultry Scratch

The Facts you'll get on Chick Raising

The pages referred to will give you an understanding of how a chick's digestive system works--what to do and what not to do in raising chicks. They will show you where you made costly mistakes in the past and explain the principles of a success-tested plan that enables hundreds of men and women to raise to maturity 95 out of 100 chicks hatched.

Thousands have already sent for this free book. It's different from any other on the subject. Those who use our poultry feeds declare it a contribution to the poultry industry second only in importance to Globe Poultry Feeds.

Why best informed chick raisers use Globe Chick Starter

Experience has taught them they make more money--raise more chicks using Dickinson's GLOBE CHICK STARTER than any other chick feed they can buy or mix.

The reasons why so many use nothing but GLOBE CHICK STARTER are simple. The Globe Brand is made with just one purpose in mind--results. Compounded of the highest quality of ingredients obtainable (the best animal, vegetable and cereal proteins, perfectly combined with health-giving vitamins and minerals) into a really uniform mixture. This last point is extremely important.

The use of the Globe Method eliminates guesswork and bother. When used as explained in "Poultry Profits," you can secure results as good as the most experienced poultry raiser. GLOBE CHICK STARTER makes chick raising easy--and more profitable. Globe Feed made today with an eye on tomorrow.

Ask your Globe Merchant for "POULTRY PROFITS" or Mail This Coupon

If you want to raise more of your chicks, don't wait. If you want to make more money out of poultry, don't delay. Sending for this helpful booklet puts you under no obligation.

THE ALBERT DICKINSON CO.
Chicago Minneapolis

Vital Questions This Book Answers

- Why a special starting feed?
- What eggs should be selected for hatching?
- What are the main points of incubation?
- What hatch should be expected from 400 eggs?
- What type of brooder is best?
- Which is the best breed?
- Which breed is the most profitable?
- Should the poultry raiser breed for meat or eggs?
- What is the best way to start?
- How can poor layers be discovered without a trap nest?
- How can a hen's egg production be determined in advance?
- What type of hens make the best breeders?
- What is the truth about pedigree?
- How many females should be put with a male?
- What is the secret of culling?
- How can fertile eggs be insured?
- How can egg yield be increased?
- What is the relation of vitamins to egg yield?
- Can electricity increase egg yield?
- What is the most economical method of fattening chickens?
- What type of chicken house is best?
- How should it be ventilated?
- What are the most deadly chicken diseases?
- How can they be cured or prevented?
- What is the best way to feed poultry for profit?

Poultry Profits

THE ALBERT DICKINSON CO.
2755 West 35th St., Chicago, Ill.

Gentlemen: Please send me without cost or obligation a copy of your booklet "Poultry Profits". I enclose 4c in stamps to cover cost of packing and postage.

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



S. C. White Leghorns Chicks—Eggs—Stock

From world-famous layers. Tancred strain, 250-280. Barron strain, 230-270. Birds culled by experts from the state university. All our pens are mated with males from dams of high records. 100% live delivery guaranteed. 5% discount on orders placed before April 1. Write for our illustrated catalog showing our poultry show winners. "Regular Egg Machines," said W. W. Zike, judge of Holland show, after looking over our pen.

Reliable Hatchery and Poultry Farm, Box 3 Holland, Mich.



Eagle Nest OHIO ACCREDITED BABY CHICKS



Every Eagle Nest Chick is produced from flocks culled and banded by experts appointed by Ohio State University.

VARIETIES	PRICES ON	50	100	300	500	1,000
White, Brown and Buff Leghorns.....	\$ 7.00	13.00	38.00	62.00	120.00	
Barred, White and Buff Rocks, Anconas, Black Minorcas, S. C. and R. C. Reds...	8.00	15.00	43.50	72.00	140.00	
White Wyandottes.....	8.50	16.00	47.00	75.00	145.00	
Jumbo Brahmas.....	11.00	21.00	61.00	100.00	190.00	
Mixed Chicks (not accredited) — Light 10c; Heavy 12c. TERMS CASH. Future orders 10% down. Balance 10 days before shipment. Postage Paid. 100% Live Delivery. Circular Free. Order from this Advertisement. Banks References. THE EAGLE NEST HATCHERY						

Dept. 26 UPPER SANDUSKY, OHIO, U. S. A.



Pure-Bred Big Value BABY CHICKS

OHIO ACCREDITED CHICKS are produced by this Hatchery. Every bird comes up to the standards set by the Poultry Department of the Ohio State University, and every breeding bird has been inspected and leg banded by inspectors trained by them.

Healthy Chicks Mean Larger Profits

The health of our flocks is of the very best. We keep our birds in the open on free range under natural conditions and they have the vitality to produce happy, healthy, lively chicks which grow into profitable birds. Our flocks have been carefully culled and bred for years for high egg production.

Special Combination Offers—Write Today for Free Catalog.

Wolf Hatching & Breeding Co. Dept. 1
Gibsonburg, Ohio

Breeds We Offer:

S. C. White Leghorns,
S. C. Brown Leghorns,
S. C. Buff Leghorns,
S. C. Mottled Anconas,
S. C. Blk. Minorcas,
Barred Rocks,
White Rocks,
S. C. R. I. Reds,
R. C. R. I. Reds,
White Wyandottes,
S. C. Buff Orpingtons,
S. C. White Orpingtons,
Jersey Black Giants.
The above selection will give what you need, whether you want eggs, meat, or both. Write us.

RUPP'S INVINCIBLE CHICKS



Shipped Postpaid 100% Live Delivery Guaranteed

Varieties	Prices on	25	50	100	500	1000
White, Brown & Buff Leghorns, Anconas.....	\$3.75	\$7.00	\$15.00	\$30.00	\$115	
Barred Rocks, S. C. and R. C. Reds.....	4.25	8.00	15.00	70.00	138	
White Rocks, Black Minorcas.....	4.50	8.50	16.00	77.00	148	
White & Silver Wyandottes, Buff Orpingtons.....	4.50	8.50	16.00	77.00	148	
Mixed assorted, 100, \$10; 500, \$50. Mixed all heavies, 100, \$12; 500, \$50.						

INVINCIBLE CHICKS are hatched from flocks that have been carefully selected, inspected and culled by an expert holding Ohio State U. Certificate. We don't believe you can buy better Chicks ANYWHERE for the price. That is why they are INVINCIBLE—they can't be beat. We want your order this season and will give it our most careful personal attention so as to convince you that this is the place to buy your Chicks. Guaranteed free from new European disease. Reference: Farmers' and Merchants' Bank. You take no chance in ordering Chicks from us. Order right from this ad or send for fine free Color Plate Catalog.

THE ARCHBOLD HATCHERY, INC. BOX 33 ARCHBOLD, OHIO. E. E. RUPP, Mgr.

YPSIFIELD HIGH GRADE CHICKS

Healthy and Husky—True to breed—Order right from this ad. Postage prepaid—25% books order.

Varieties	100% live delivery guaranteed per	50	100	1000
English Type White Leghorns, Grade A.....	\$9.50	\$18	\$85	\$165
English Type White Leghorns, Grade B.....	8.50	16	75	145
White Wyandottes.....	8.50	16	75	145
Barred Rocks.....	8.00	15	72	140
Rhode Island Reds.....	8.00	15	72	140

Ref., First National Bank, Ypsilanti. This is not primarily a Commercial Hatchery, but the Hatchery Department of our modern Egg Farm, established from 20 years' experience in breeding and prolific egg production. YPSIFIELD EGG FARM HATCHERY, Ypsilanti, Mich.

Early Maturing BABY CHICKS

From Pure Bred, Blood Tested Stock

All of our breeding stock has been tested for Bacillary White Diarrhea, and Culled for Egg Type and Standard Requirements. This should greatly aid in the control of White Diarrhea Troubles. Write for prices on our B. P. Rocks, B. I. Reds, White Wyandottes, W. P. Rocks, and S. C. W. Leghorns.

MILAN HATCHERY, Box 4 Milan, Mich.

HUNDERMAN'S CHICKS



FIRST CLASS CHICKS \$10 per 100 and up. From pure-bred flocks on free range, culled by an expert, 100% Live Delivery Guaranteed. Postpaid prices 25 50 100 500 1000
English S. C. White Leghorns.....\$3.50 \$6.50 \$12.00 \$57.50 \$115
S. C. Brown Leghorns.....3.50 6.50 12.00 57.50 115
Barred Rocks, S. and R. C. Reds.....4.25 8.00 15.00 72.50 140
Mixed assorted, 25, \$3; 50, \$5.50; 100, \$10. Ref.: State Commercial Savings Bank. Order today. You take no chances. Free Catalog.

HUNDERMAN BROS., BOX 36, ZEELAND, MICHIGAN

Dundee Chicks

Stock all Pure Bred and Blood Tested for Bacillary White Diarrhea.

This assures you of more healthy, sturdy chicks. The kind that live and grow into money making flocks. Flocks have all been thoroughly culled for years by experienced men.

Four Leading Varieties: Barred Plymouth Rocks, Rhode Island Reds, S. C. Mottled Anconas, S. C. English White Leghorns.

Write for price list and catalogue describing in detail about our test for Bacillary White Diarrhea

DUNDEE HATCHERY, Box A, Dundee, Michigan

PROGRESSIVE CHICKS

Sturdy, strong, vigorous Chicks from good, pure-bred, bred-to-lay flocks on free range. We have been producing Chicks for many years and KNOW HOW to satisfy our customers. 100% Live Delivery Guaranteed.

Varieties	Postpaid prices on	50	100	500
Buff and Brown Leghorns, Anconas.....	\$6.50	\$13.00	\$60.00	
Barron Strain White Leghorns, (Select).....	7.00	14.00	65.00	
Barred Rocks, S. C. Rhode Island Reds.....	8.00	15.00	70.00	
Mixed Chicks for Broilers.....	5.25	10.00	45.00	

Reference: Zeeland State Bank. Order right from this ad. In full confidence of getting what you want. Free Circular.

PROGRESSIVE POULTRY FARMS, BOX E, ZEELAND, MICHIGAN

CHI X

We make no extravagant claims. We know you want GOOD CHICKS and that is just what we will furnish you, from good, bred-to-lay, pure-bred flocks, carefully selected. Our business has been built up by having satisfied customers. 100% Live Delivery. Postpaid prices on 25 50 100 500 1000
White, Brown & Buff Leghorns.....\$4.00 \$7.50 \$14.00
Barred & White Rocks, Reds, Anconas.....4.25 8.00 15.00
White Wyandottes, Buff Rocks.....5.00 9.00 17.00
5% discount on orders for 500, 10% discount on orders for 1000 and over. Ref., Branch County Savings Bank. Order right from this ad.

COLDWATER HATCHERY, BOX 53, COLDWATER, MICHIGAN.

CARE OF GOOSE EGGS.

Will you please tell me what to feed my geese to get fertile eggs? For the last two years my eggs have not hatched well. So this fall I changed ganders. I am feeding corn on cob. They have all the alfalfa hay, or chaff, they want, with plenty of fresh water.—Mrs H. D.

Goose eggs show a large per cent of fertility and hatch poorly when the breeding stock are fed heavily on corn until they become overfat. Oats are a better feed for breeding geese, and both corn and barley should be used sparingly. A good mash to use just before laying season consists of two parts bran, one part ground oats and one-fourth part corn meal mixed with buttermilk or sour milk. This gives the geese the materials for heavy egg production but does not put on much fat, like a corn diet. Plenty of green feed is essential.

Early in the spring the goose eggs are often laid on very cold days. They must be gathered often to prevent chilling. Badly chilled eggs often fail to hatch and the blame is placed on the breeding stock.

The eggs should be stored in a cool room the same as hen's eggs. A temperature from fifty to fifty-five degrees will be satisfactory. Eggs stored in bran seem to show less evaporation if they are to be held several weeks. It is well to remember that fresh eggs hatch the best and turn out the most vigorous goslings. So do not hold the eggs longer than necessary, and date the eggs as laid, to prevent keeping them too long.

BROODER CHICKS DIE.

We have a flock of three-week-old chicks which, for about a week now, have been dying. They get so they cannot walk or stand on their feet. They eat and drink well, but keep getting weaker and in a few days die. We have been feeding them rolled oats and sour milk the first few days, then a little bran each day. Now they get all the bran they want, besides two feeds of rolled oats and one light feed of corn meal each day. Have had plenty of water. Thought they had leg weakness, but it seems as though they would get over that as they have been on ground every day for over a week.—M. B.

You do not mention the method of brooding the chicks, but overcrowding, chilling or overheating in the brooder may have caused weakness during the first few days and it is now showing up when the chicks are out on the ground. I have noticed that a brooder house full of chicks may seem all right until first turned out on the grass, when a few of them promptly show up their weakened condition. After these chicks have been culled out, the remainder of the flock soon begins to grow rapidly and losses grow less.

In a flock of several hundred incubator chicks under a stove brooder occasional losses are to be expected until the chicks are several weeks old. I think weak sparks of life in the hatching eggs laid during the winter are responsible for some of the losses. Early hatching is all right but I think many poultrymen are beginning to feel that chicks can come out too early. This often results in a heavy mortality and less profits than are made from April and May chicks which grow rapidly when they are hatched.

TURKEYS AND CHICKENS.

HERE is a little thing I have found out about turkeys. I have been told that they could not be raised with chickens and be shut up. I have only two, and they have not been outside of the chicken house all winter, and they are doing fine. They get oyster shell, grit, mash, sour milk and grain, the same as well cared for chickens do.

Last year I bought red turkeys. They were wild, and went off to the woods to lay. The season being wet, they came off with small hatches. The turkeys I have now are tame and I like to raise them with chickens and a few geese, as I can do the work without the aid of a man.—Mrs. M. E. T.

Biggest Hatches Strong Chicks

That's what you'll get with a Champion Belle City Hatching Outfit. My Free book "Hatching Facts" tells how—gives newest ideas and quickest ways to make poultry pay big with my

\$13²⁵ Champion \$21⁹⁵ Belle City
140 Egg Incubator 230 Egg
80 Egg Incubator \$11.95; Hot-Water Copper Tanks—Self-Regulated Safety Lamps—Thermometer & Holder—Egg Tester. \$5.95
buys 80-Chick; \$7.95 buys 140-Chick; \$9.95 buys 230-Chick Hot-Water Double Walled Brooder. Save \$1.95. Order both.
140 Size Incubator and Brooder, Only \$19.95
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Express Prepaid
East of Rockies & allowed West. Low Prices on Coal and Oil Canopy Brooders come with catalog. With this Guaranteed Hatching Outfit and my Guide Book you can make a big income, also share in my Special Offers
Save time. Order now or write today for my Free book "Hatching Facts." It tells everything.—Jim Rohan, Pres.
Belle City Incubator Co. Box 14 Racine, Wis.

You Take No Risk in Buying
Ironclad 140 Egg Incubator
\$13⁸⁵

30 DAYS TRIAL
FREIGHT PAID

Investigate before you buy. Incubator made of Redwood covered with galvanized iron. Double walls with air space between. Every joint lapped with galvanized iron. Strongest and most durable incubator that can be made. Deep chick nursery, self regulating. Hot water heat. Copper Tanks, in both incubators and brooders.

Money Back IF NOT SATISFIED

140 Egg—\$13.85; with Hot Water Brooder, \$18.25
260 Egg—23.50; with Hot Water Brooder, 30.75
140 Egg with 200 Chick Canopy Brooder, 22.95
260 Egg with 300 Chick Canopy Brooder, 32.95
You can use the machine for 30 days and if not satisfied we will refund your money and pay return freight charges. Both machines shipped complete with all fixtures. Set up ready to use. Write for catalog or order direct from this advertisement.

IRONCLAD INCUBATOR CO. Box 83 Racine, Wis.

\$13²⁵ 140 EGG
Don't take any chances—find out what an incubator is made of before you buy. Wisconsin are made of Genuine California Redwood. We give 30 Days' Trial—10-year guarantee. This famous 140-Egg incubator only \$13.25. With Hot Air Brooder both only \$17.75.

WHY PAY MORE 30 DAYS TRIAL

180 Egg Size \$15.75, with Brooder \$22.00
250 Egg Size \$22.75, with Brooder \$31.00
340 Egg Incubator.....\$30.75
500 Egg Incubator.....45.50

Incubators have double walls, air space between, double glass doors, hot water, copper tanks, self-regulating. Shipped complete with all fixtures. Set up ready to run. Order direct or send for catalog, which shows larger sizes.

Wisconsin Incubator Co. Box 114 Racine, Wis. MONEY BACK IF NOT SATISFIED

Profit Producing Baby Chicks

Tancred and Barron W. Leghorns. S. C. R. I. Reds Parks' Barred Rocks. High quality, low in cost. Satisfaction and 100% live delivery guaranteed. Big illustrated catalog free.

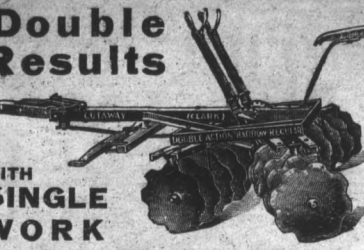
Brummer-Frederickson Poultry Farm Box 20, Holland, Mich.

CHICKS THAT LIVE

From sturdy, healthy free-range flocks. Fluffy, lively youngsters that should grow fast, and get on an all-year-round egg laying basis. From carefully mated high egg-producing strains, tested and culled to insure exceptional vigor and laying ability. This stock and our scientific hatchery produces chicks that live, grow fast, lay early. Selected for uniform size and color so they will grow into beautiful flocks of which you'll be proud. Place your order before our output is taken by others. Order now for present or future delivery. Leading varieties. Live delivery guaranteed. Postpaid. Write for new chick booklet.

H. L. Carl, Box 100, Montgomery, Mich.

Double Results



WITH SINGLE WORK

That's what you get when you use a

Clark DOUBLE ACTION HARROW

It saves time, labor and horsepower but gives you a deeper, finer seed-bed. Once over with a CLARK "CUTAWAY" Double Action Harrow is better than twice over with an ordinary single harrow. A size for every farm. For horse or tractor use

FORGED EDGE DISKS OF CUTLERY STEEL

The disks on all CLARK "CUTAWAY" Harrows have the edges forged sharp. No other make of harrow has them.

Write today for address of our Michigan distributing house, also complete catalog and valuable free book, "The Soil and Its Tillage."

The Cutaway Harrow Company
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Town Line POULTRY FARM

White Leghorns
Tanager-Holly-wood-Barron strains
Anconas
Sheppard Strain, direct
Bar'd Rocks
Parks dark colored
Br. Leghorns

PERSONAL SERVICE HATCHERY

5% Discount
On all prepaid orders placed 30 days before shipment.

THREE MATINGS
Special Star: White Leghorns, 250-288 males. Anconas, Sheppard males. Extra Selected: All breeds culled by experts. Selected: Personally culled; very high egg type.

100% Live Delivery Guaranteed. Catalog Free.

TOWN LINE POULTRY FARM
R. R. 1, Box 15, Zeeland, Mich.

SUNNYBROOK CHICKS

Husky Livable Chaps

If you want healthy, vigorous, pure-bred chicks from flocks carefully selected and tested for heavy laying and standard qualifications typical of the variety they represent, chicks that will mature quickly and improve your flock, then you want "SUNNYBROOK" chicks. We specialize in S. C. W. Leghorns, \$13 per 100; Barred Rocks, \$15 per 100; Rhode Island Reds, \$16 per 100; and White Wyandottes, \$18 per 100. In lots of 500 or more 50¢ per 100 less. 100% live delivery guaranteed. Postage paid. Catalog free.

SUNNYBROOK POULTRY FARM, HILLSDALE, MICHIGAN.

First Ave. Hatchery

Chicks from heavy laying strain, S. C. White Leghorn, mated with Eckard Cockerels from M. A. C. Also chicks from old hens, fine birds, culled stock. If chicks wanted don't delay. Orders are coming. Send for price list and order Early.

FIRST AVE. HATCHERY

Holland Mich.
EGGS from Ringlet Barred Rocks \$5.00 per 100, \$2.00 per setting. Robert Martin, Woodland, Mich.

W. LEGHORN-BLACK MINORCA-ANCONA

Official International Egg Contest Records up to 254 Eggs.
Few can equal our PRICES.
No one can beat our QUALITY.
Before ordering your 1925 chicks send for our CATALOG. Our LOW PRICES will astonish you.
Over 20 years experience assures your satisfaction.

Established in 1904 Sent by PARCEL POST PREPAID.
100% Live Delivery Guaranteed.
PINE BAY POULTRY FARM, Holland, Michigan.

Highland Leghorns

Tanager-Holly-wood-Barron Sired S. C. W. Leghorn chicks. Bred to lay stock. All free range. Early maturing. Best winter layers. Selected 100, \$13; 500, \$32.50; 1,000, \$120. Selected Star A 100, \$15; 500, \$72.50; 1,000, \$140. Postpaid. Full live arrival guaranteed. Illustrated catalog free.

Highland Poultry Farm

R. 9, Box C, HOLLAND, MICH.

Barred Rock Baby Chicks

We hatch only Barred Rock Chicks from pre-selected stock shipped by prepaid parcel post to your door, satisfaction and a live delivery guaranteed.

CIRCULAR ON REQUEST

THE KAZOO HATCHERY CO.
R. R. 3 Kalamazoo, Mich.

BABY CHICKS

\$12.50 Per 100 and Up
We are listing 12 varieties of Pure Blood Farm range stock. Chickens, Ducks and Guineas. Write for price list. **CLINTON HATCHERY & POULTRY FARMS, Wilmington, Ohio.**

BABY CHICKS and DUCKLINGS

Rhode Island Reds and Barred Rocks. Utility bred. Also extra selected quality Reds and M. A. C. strain Barred Rocks. From stock carefully selected for health and egg production. White Pekin Ducklings. Write for circular and price list. **Goret's Poultry Farm & Hatchery, Corvina, Mich.**

RURAL HEALTH

By Dr. C. H. Lerrigo

YOUR CHILD SHOULD BE 100 PER CENT.

LOOK over any schoolroom in your county and you will see a bunch of clean, hearty, happy children. Nothing wrong with them, surely. Yet the law of averages tell us that three in four have some physical defect, the removal of which will make for better health and help the process of growth into perfect manhood or womanhood.

A county in Minnesota was selected for physical examination by a competent doctor. Three thousand nine hundred thirty-four children were examined. Defects that could be prevented or remedied were found in eighty-two per cent of the city children, and in seventy-three per cent of the country children. Many of these defects were in the teeth. Malocclusion was common. The term describes a condition in which the teeth do not meet correctly for the bite, the upper teeth do not come down properly upon the lower. Often this is due to loss of temporary teeth before the permanent ones come down in the jaw. This can be corrected by the dentist. Among the city children seventy-eight per cent had decayed teeth.

Thirty per cent of the children were more than seven per cent underweight. They needed more milk, green vegetables and whole wheat bread in their diet.

Diseased tonsils were found in many children but not to so great an extent as formerly. Ten per cent of city children and sixteen per cent of those in the country needed tonsil surgery.

Seventeen per cent showed symptoms of more or less definite enlargement of the thyroid gland (goiter).

Speech defects were not common but some seventy children in the country had enough trouble of this kind to need correction.

Do not wait for a school examination to see if your children need help. Have them examined now by your own family doctor. The best time to correct physical defects in children is at the earliest possible moment. Your child should be 100 per cent efficient.

CHILD BITES NAILS.

How can I break my three-year-old child from the habit of biting her finger nails? She seems to swallow them and I fear that it will make her sick. —S. B.

Covering the nails with adhesive plaster will help, but it may be necessary to put a pasteboard splint on each elbow so that the child cannot get her hands to her mouth. This is a very bad habit and indicates some fault in the nervous system. The child should be studied from every angle to see just where the fault lies.

PAINS IN BREAST.

I have pain through my shoulder and arm and through my breast. I have milk in my breast for several months. I was examined a few times but told that I am not pregnant. I am twenty-three years old. Have no children; had three miscarriages. Please tell me if it is that milk that causes all the pains. —R. M.

Milk may appear in the breasts without pregnancy. It may simply indicate a glandular activity that is due to some irritation of the pelvis. The milk is not the cause of the pain. With the history you give, it is important that you have a very thorough physical examination by a skilled doctor and thereby save yourself from future and worse trouble.

When Helvin Hogan gets the blues he always talks of going to town. But since Ma Hogan told him to go ahead for all she cared, he don't talk about it any more.

Wingarden Strain

WHITE LEGHORN BABY CHICKS

Wingarden White Leghorn Strain is a blend of Hollywood, Tanager and Barron English, the highest obtainable grade of each. On the male side the trap-nested records are from 298 to 304. The ancestry of the hens is 260 to 290 eggs. At the International Egg Laying Contest of 1924 a pen owned by us averaged 233 eggs. High bird, 265. Get our catalog for full information regarding Wingarden chicks.

EGG BRED for 19 YEARS

BROWN LEGHORNS ANCONAS BARRED ROCKS

Wingarden HATCHERY & FARMS
ZEELAND, MICH., BOX M



BRED FOR SIZE, TYPE and EGGS SINCE 1910.

English Type WHITE LEGHORNS

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

The chicks we offer you this year are from extra selected hens, sired by males out of hens that laid 270 eggs in 365 days these males being sired by a male from a 300-egg hen. The price asked for them is very reasonable. They will bring you bigger profits and absolute satisfaction.

You will be benefitted by our 15 years experience hatching and shipping chicks. Our stock grows up uniform in size, has great vitality and brings big returns in our customers' hands. Let us mail you our catalog with prices. 100% live arrival guaranteed.

NINE WEEKS OLD PULLETS IN MAY.

WOLVERINE HATCHERY
H. P. WIEREMA, Prop. R.R. 2, Box 97 Zeeland, Mich.

ONE MILLION "GOOD LUCK" CHICKS

LEADING BREEDS - LOWEST PRICES!

GET OUR INSPECTED "GOOD LUCK CHICKS" THIS SEASON. THOUSANDS OF PLEASED CUSTOMERS TESTIFY TO THEIR WONDERFUL QUALITY, TYPE, BEAUTY AND EGG PRODUCTION. Send for our BIG, BEAUTIFUL, COLORED, INSTRUCTIVE ART BOOK FREE showing our own birds in their NATURAL COLOR. Read the many testimonials full of praises which highly endorse our chicks. Our Advice, before you buy elsewhere, is to demand a photo of the birds that produce the eggs from which the chicks are hatched. WE GUARANTEE OUR BIRDS FREE FROM EUROPEAN POULTRY PEST AND OTHER DISEASES. 100% Live Delivery POSTPAID. Bank Reference, Member I. B. C. A. and Ohio C. A.

Price now	25	50	100	300	500	1000	
White, Buff, Brown Leghorns, Anconas, Barred and White Rocks, Rhode Island Reds, Black Minorcas, White Wyandottes, White and Buff Orpingtons, Buff and White Minorcas, S. L. Wyandottes, Light Brahmas, Assorted, all heavies	\$3.75	\$7.00	\$13.00	\$20.00	\$38.00	\$60.00	\$118.00
Extra Selected S. & R. C. R. I. Reds, White Rocks and Wyandottes, Tanager White Leghorns, Select S. & R. C. Reds, Utility and Barron White Leghorns	4.50	8.00	15.00	20.00	44.00	72.00	138.00
Mixed, all heavies, \$11.50 per 100 straight. Odds and ends, Mixed Chicks	4.75	8.50	16.00	21.50	47.00	77.00	144.00

NEUHAUSER HATCHERIES, BOX 62, NAPOLEON, OHIO



KEYSTONE HATCHERY

CHICKS BLOOD TESTED FOR BACILLARY WHITE DIARRHEA. Leading best strains as given below. QUALITY all along the line is our Motto. 100% Live Arrival Guaranteed. Postpaid prices on

	50	100	500	1000
Foreman Strain Barred Rocks	\$10.50	\$20.00	\$95.00	\$190
Selected Barred Rocks	8.75	17.00	80.00	155
Int. Laying Contest S. C. R. I. Reds	10.50	20.00	85.00	190
Extra Selected S. & R. C. R. I. Reds	9.50	18.00	85.00	170
White Rocks and Wyandottes	9.50	18.00	85.00	170
Tanager White Leghorns, Select S. & R. C. Reds	8.50	16.00	75.00	150
Utility and Barron White Leghorns	6.50	13.00	65.00	130

Mixed, all heavies, \$13 per 100 straight. Mixed, all varieties, 100, \$12 straight. If it is real EGG LAYING QUALITY that you want in your Chicks, Keystone Chicks will fill the bill for you. They are Winners in Laying Contests in Michigan, Missouri, Connecticut, Canada, etc. Get our Literature giving these winnings before buying Chicks elsewhere, or order direct from this ad.

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Pure-bred, high quality, heavy laying, tested flocks. These pullets will make excellent winter layers. 100% Live Delivery Guaranteed. Bank Reference.

Varieties. Postpaid prices on	25	50	100	500	1000
S. C. White & Brown Leghorns	\$3.75	\$7.25	\$14.00	\$67.50	\$130
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Anconas, (Extra Good Sheppard)	4.00	7.75	15.00	72.50	140
Mixed Chicks	2.75	5.50	10.00	50.00	100

Extra Selected Stock, \$2.00 per 100 higher. A liberal discount on orders booked before March 20. All are hatched in modern machines. Each order carefully packed personally. Free circular.

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	50	100	500
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Barrel Plymouth Rocks	7.75	15.00	72.50
S. C. Mottled Anconas	6.75	13.00	62.50
Mixed Chicks	4.75	9.00	42.50

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pedigreed males head our famous flocks of Tanager American and Tom Barron English White Leghorns, Sheppard's Famous Mottled Anconas, Park's Brod-to-Lay Rocks. Our birds won first prizes in egg production class at Holland and West Michigan State Fairs. All flocks bred through generations for high egg production. Prompt, 100% live delivery, prepaid, anywhere east of the Rockies. Prices low. Order early to get chicks when you want them. Our beautifully illustrated, instructive Free chick booklet will give you much valuable information. Write for your copy now.

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White Leghorns headed by males direct from Eckart; last year's M.A.O. International Egg Contest winners. Also leading strain Anconas, Rocks, S.C. Reds. Cullied by experts. Modern hatching methods. **Guarantee 100%** vigorous delivery. **Free Catalog.**
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INTERLAKES FARM, Box 39, Lawrence, Mich.



About Dreams and Dreamers

Dear Uncle Frank:

What do you think of these day dreams? I find it doesn't get me very far to dream. I think dreamers are left at the bottom of the ladder to watch the active ones climb.

When I dream I have my eyes shut and maybe my mouth open, and making a lot of racket and disturbing the peace of my fellow bunkie.

You couldn't guess of whom I dreamed last night, so I will tell you. Don't say it was by beau, because this maid doesn't have such things to disturb her peace of mind. Besides, my one hopeless ambition has always been to be a beau myself instead of a belle. Funny, isn't it?

Well, I was walking along holding onto my daddy's little finger when I saw a long line of boys and girls running and skipping along after a tall, gruff looking man with a thick grizzly beard, and his hat to one side. He was evidently charming them along as the Pied Piper did in days gone by. The boys and girls were all carrying pencils and pad, some doing cross word puzzles, some word contests, and others drawing pictures. The gruff looking man had his pockets full of letters and his hands were busy handing out prizes and writing answers to the letters.

I tore away from the protecting hand of my father and followed the crowd slowly working myself up to the head of the ranks.

"Say, Uncle Frank," I called, "I want to thank you for that box of candy you gave me." At the sound of my voice the big man turned with interest, but at my word of thanks he shrugged his shoulders and said modestly, "Ah, Shucks," and then walked on.

My father was amazed to see his bashful little "darter" speak so freely

to the big, gruff man, and asked me how I dared. I said, "Why, that's Uncle Frank," and got busy at a cross word puzzle he had given me, as if that explanation ought to be enough to satisfy anyone.

It was a strange dream and I woke up to realize I had not thanked you yet for the candy. So I thank you now and hope that next time I will receive second prize.

I know you do not look like you did in my dream, because I saw your picture once.

It is strange, is it not, Uncle Frank, how people can dream of things they never saw? I dreamed one night of Resurrection Day. And, although I very seldom remember my dreams, this one was impressed so strongly on my mind that I remember it to this day. It was night and the stars and moon shone out as brightly as any other night, when the graves opened up to give up their dead. And though many had been buried in black, they were now all robed in purest white and not a soul spoke. It seemed like they had changed places after they were buried, because each found his loved one rising next to him and they all joined hands. But things of beauty and splendor never last in dreams, for I awoke before it was finished.

I am wishing luck to the "White Amaranth" and the "want-to-be teacher," because I think that those who follow their ambitions are bound to win.—Ann Mulder, M. C., Grand Rapids, Mich.

You had some unique dreams. I wonder what you ate for supper to dream of me. There are dreams and dreams. Some dreams are ambitious and it is our duty to ourselves to work to make such dreams come true. I am glad you added the last paragraph, especially after having written the first. "Ah, shucks!"

OUR LETTER BOX

Hello! Uncle Frank:

Why, you dear little soul! Gee, but you're just as homely as ever. I suppose you think I look like somebody. But I am the berries, peaches and cream. What is the matter with the M. C.'s, they write such dry letters. I like to see crazy ones. I naturally am crazy, anyway.

Say, Uncle Frank, I bet you are an old bachelor. I know of a man that was called Uncle Lisha, and he would never tell how old he was. But one of the cousins got to know him, and this cousin wrote and told the rest how old he was. And, oh, boy, he sure got a lot of letters from the girls.

I suppose some of you think this is a boy writing, but it's not, it's just a Tom Boy. One that powders, paints, shingles, and uses matches for eyebrow pencils. Will close with lots of love from Happy-go-Lucky.

You guessed right. I'm as homely as ever, but I got some of my teeth left and I still have enough hair to part. I agree with you that your letter is a crazy one. I hope you aren't

crazy all the time. I'll bet you whistle. I'm not telling my age because, if I did none of the girls would write me.

Dear Uncle Frank:

Although I am lazy and a silent reader, I will answer a contest. I became a member of the Merry Circle, either in 1922 or 1923. The reason I have been a lazy bird is because I have been sick in bed for nearly five months, and I am in bed yet. I don't like it very much either, but I would like to get well. I thought maybe I would win a prize if I tried my best. I have never written you before.

I hated to miss my eighth grade in the country school this year, but I must get well before I ever go back to school. My sister is sick, so she had to quit high school. She has been sick nearly as long as I have.

My little cousin is here now. We have lots of fun together as long as I am in bed.

Last summer I raised two geese and some Rhode Island Red chickens. I had fourteen goose eggs and only got two geese out of them. Ha, Ha. My brother bought an African goose, so we have three now. I think they are very pretty, only the African goose has such a long neck and a funny looking bill. I like them better than ducks and they are easier to raise.

How much are the M. C. buttons, Uncle Frank? I don't want to be without one, because I lost mine.—Your loving nephew, Lawrence Jumper, St. Johns, Mich., R. 5, Box 71.

I am certainly glad to hear from you, but I am sorry that you and your sister have been sick so long. It is my sincere hope that both of you will get well soon. M. C. buttons cost ten cents, but only those who are mem-



The U & I Canning Club of Livingston county, has won thirty-seven first premiums, thirteen seconds, and six thirds at the Howell and Fowlerville Fairs. The members are Inez Buckley, Ruth Ever, Daisy Roberts, Elben Wasson, Marion Levine, Ruth Levine and Charlie Dyer. Helen Cotrell is the leader.

bers and have lost their buttons can buy them.

Dear Uncle Frank:

How are you these nice days?

I only wish it would snow again so I could go hunting. Do you?

I got a twenty-two rifle for a Christmas present, which was the best present I could have gotten.

When I get my work done in the morning I put on my knickers and my boots, and off I go, and sometimes I don't get home until 3:00 o'clock in the afternoon. I never like to come home without anything.

Sometimes I get five and six rabbits and sometimes only one.

You probably think when you start out and read this that I am a boy, but I am not.

My nick-name around our place is "Buckshot." Some name, isn't it?

I have bobbed hair and I wouldn't have it grow long for anything, although they say long hair is coming in style.—Another M. C., Good-bye, everybody, M. P.

I bet you are some sure shot, but you missed your mark when you didn't sign your name. Perhaps you will be a second Annie Oakley.

Dear Uncle Frank:

We girls always said that it was easier for the boys to get water than it was for us to wash dishes. So we asked the boys if they would change and let us girls get the water, and they wash the dishes. They said they would. So the next day my sister and I got the water while my brother and another boy washed the dishes. They never rinsed the dishes off before they washed them. My brother dropped the dish towel on the floor, and my teacher had to wash it. At first she said she was going to make him wash it, but she said Monday was her washday, so she would do it. We girls are still getting the water and the boys are still washing the dishes.—Your niece, Wilhelmina Zachike, R. 7, Box 70, Albion, Mich.

That's a good way. Change about and really find out which is preferable. Of course, after the boys washed dishes for a while they might get used to it, but I've tried both and I like carrying water better.

Dear Uncle Frank:

Just a word in regard to "cross word" puzzles. First, I must mention the disrespect some have for bobbed hair and knickers.

I wonder if that had caused as much trouble in families as "cross word" puzzles.

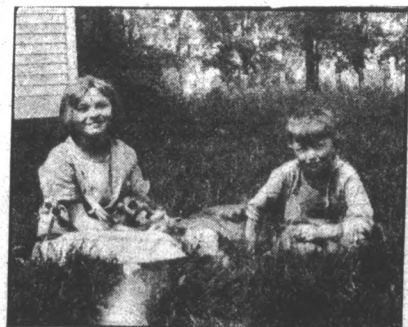
Not only that, but young folks neglect their lessons in order to solve these crazy "conglomerations."

I, for one, cannot enter into these contests and do justice to myself.

I would like to hear what others have to say on the subject.

The question is, "Are Cross Word puzzles a detriment or a benefit to the public?"—Rex Ellis, R. 2, Richland.

Perhaps Rex has started something. I know, at least, that the cross word puzzles have. Let's have some opinions.



Stella Toth and Brother Mike. Sport is Also There.

Should a Girl Whistle?

Opinions of Prize Winners

By Roscoe Bloss, M. C., Dunningville, Michigan.

Yes, I think that a girl should whistle if she cares to. It would be indeed folly to deem this harmless recreation unladylike. The modern girl is so full of ambition and pep that if she indulges in a little harmonious whistling she is only telling the world that she is happy and alive with the good old American spirit.

Whistling is an art which, though not nearly as great, or as fully recognized as singing, nevertheless has many followers. Amongst these are many accomplished lady whistlers and imitators. None of these ladies are barred from society that I know of, nor have they any right to be treated in such a manner.

And, here is an argument which should convince some. If girls whistle more they are bound to talk less, and we boys would appreciate that, eh, boys?

Of course, we all agree that unharmonious whistling, whether perpetrated by boys or girls, is an unhuman act, but if the girls will keep away from this form of torture, I say, let them whistle.

By Donna Scribner, M. C., Bancroft, Michigan.

Why, of course a girl should whistle if she wants to. Why not?

If a girl is that full of pleasant thoughts and good cheer that she just has to pucker up her lips and let some of the merriment out onto the world, I should think everyone would be glad of it. You never see people whistling when they are thinking bad, unpleasant things.

Some one says, "It annoys the old folks." Well, let it annoy. They were once young and full of spirit and should not be rough on youth now. So, girls, when you see the frowns coming, don't stick round, but just grab the milk pail or lantern and run to the barn, and whistle, whistle, whistle and whistle.

It seems to me that the world is much brighter for the merry whistle of the young; and just because a girl happens to be a girl, why should she be barred from scattering the symbols of good cheer?

A girl who whistles and romps, is a more real live animal than one who sits and tats, crochets or reads her life away.

Why do they have music in the army? Just to keep the spirits up. One can walk much farther to the strains of pleasant music, than without it. So it is with the whistle. Just try whistling when you go after the cows or on an errand, and see how much easier the task is done.

It is not unladylike to whistle, but, of course, there is a time and place for everything. So,

Whistle and hoe,
Sing as you go,
And shorten the rows
By the tunes that you know.

By Blanche Cook, Elsie, Michigan.
Whistle and hoe, sing as you go.
Shorten the rows by the songs you know.

How true this is, but does the boy spoken of in this song have any longer row to hoe, than his sister? Is his row any longer, the ground any harder, or more weedier than the row a girl must hoe? We know it is not.

Aren't we all more contented and happy at our work if we are allowed to whistle or sing? Our work is not so hard if our thoughts are joyful ones, and how can we have joyful, happy thoughts if not by a cheerful whistle or song?

A cheerful whistle not only helps a boy to forget his own troubles, but it cheers all who hears it. Why not let a girl whistle? It will lighten her cares and like her whistling brother, she, too, can cheer others.

Should a girl whistle? I, for one, say she should. On only one condition need she be deprived of this joy, and that is, when she cannot whistle. The majority of our girls can whistle, or can learn to whistle.

It is morning. Across the fields we can see a farmer's boy just starting to the field. His fine team of horses are ready for a day's hard work. The boy himself is very happy, and as carefree as the birds around him. But, hark! what is it which comes to us across the fields? It is a clear ringing whistle, the boy's morning song. We know his thoughts are not of an unhappy kind, for he loves his work.

In the twilight of the evening the boy is returning from his work, tired but happy. Still as we hear his whistle loud, then gradually fainter as he nears the farmyard.

In the evening twilight, we see him again. He still whistles, but this time he is taking the cows home. Watch him as he nears the cattle. See them look up. They know the happy thoughts and song of the farmer's boy, and they pause to listen, because they, love it.

At the house, we see the boy's sister. She, too, is happy. Her thoughts are happy ones, too; how would we know if she did not whistle? Her day's work is done and she whistles.

It has been a long day for both, the boy and his sister, and they are tired, but happy. Why are they happy? Because they have been allowed to whistle.

Picture this world without a whistling girl. The picture you will see should be enough proof to show you that a girl should whistle.

THE WHISTLING WINNERS.

THIS whistling contest made me whistle a bit more this week because I had brought to my attention all of the favorable things regarding whistling, and not many of the unfavorable ones. I am glad it turned out that way for my thoughts are that whistling, like everything else, can be refined or ungentlemanly or unladylike. When whistling is music, it should not be interfered with, for we can not have too much music in our lives.

Fountain Pens.

Roscoe Bloss, M. C., Dunningville, Mich.

Donna Scribner, M. C., R. 1, Bancroft, Mich.

Dictionaries.

Blanche Cook, R. 3, Elsie, Mich.

Gerald S. Richards, Lake Odessa, Mich.

Marjorie Cline, Union City, Mich.

Knives.

Bernard Alfredson, M. C., Whitehall, Mich.

Maxine McGowan, Climax, Mich.

Hollis Parks, M. C., Perry, Mich.

Evelyn Schlader, R. 2, Freeland, Mich.

Ruth Burkett, M. C., Dowagiac, Mich.

ARE CROSS WORD PUZZLES BENEFICIAL?

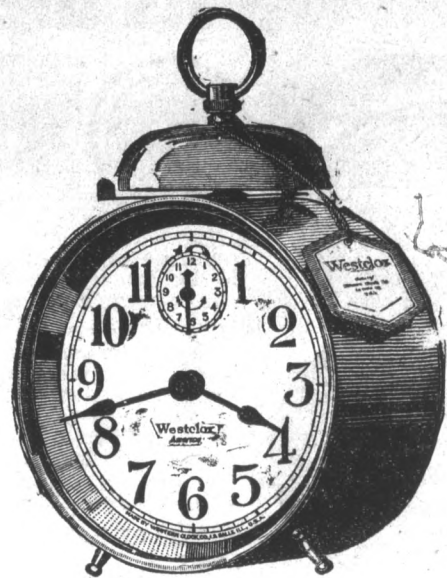
THERE is no doubt but what cross word puzzles are the rage. But some have doubted whether they are beneficial or not. In fact, one letter on the preceding page expresses some thoughts against them, and I asked for some other opinions on this subject.

This week a contest on this subject would not be a bad thing, it seems to me. So, send in your opinions and try for a prize. Even if you do not get a prize you will probably get a Merry Circle button and card if you are not an M. C.

Do not make your papers longer than 250 words. Write your name and address in the upper left hand corner of your paper, and if you are an M. C. put M. C. after your name, as every loyal Merry Circler should do.

This contest closes March 13, so be sure to send your answer to Uncle Frank, Michigan Farmer, Detroit, Michigan, in plenty of time.

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For over thirty years this Westclox has maintained two standards—high qual-

ity, low price. The price on the tag reads \$1.50. It would be easy to make it cheaper. But then we wouldn't care to put the trade mark Westclox on its dial. As it is, it goes on America just as proudly as it does on Big Ben, or any other Westclox.

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Box B, Upper Sandusky, O.

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R. 10, HOLLAND, MICH.



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R. R. 8, Box 6, Holland, Mich.



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Selected R. I. Reds and	\$5.00	\$12.00	\$57.50	\$140
Barred Rocks	8.00	15.00	72.00	160

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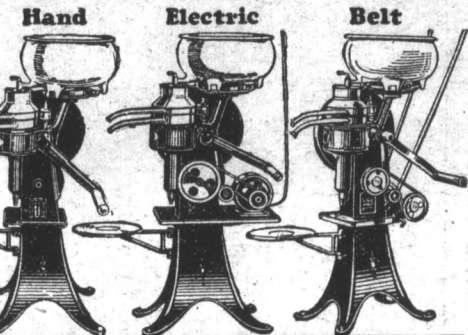
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COW TESTING INCREASES WORTH.

THE spectators at the Calvin Benedict auction sale held on the fourth of February in Clayton township, Genesee county, were given a good demonstration of one great benefit to be derived from cow testing work.

There were twelve head of grade Holsteins in this herd. Nine head had been tested in the Genesee No. 3 Cow Testing Association for only nine months. The other three were not tested.

The nine head that had been tested brought the big average selling price of \$168. The highest price paid was

Jens Wong owned the high two-year-old, grade Guernsey with 7,353 pounds of milk and 355.5 pounds of fat.

Jennings worked out the following interesting table on cost of production of 100 pounds of milk and a pound of fat by high and low producing herds:

Number Herds.	Feed Cost.	
	100 Lbs. Milk.	Lbs. Fat.
14 over 300 lbs. fat.....	61c	16c
11 200 to 300 lbs. fat.....	67c	17c
3 under 300 lbs. fat.....	81c	20c

Fall freshening cows in the association averaged thirty pounds more fat during the year than spring freshening cows, making the average price of butter-fat run five cents more per pound in favor of fall cows.

Thirty-four poor cows were culled



This is the Season when Many Calves Are Going to Market. As Yet we Have Given Little Study on How to Realize Most From Them.

for a six-year-old. She went under the hammer at \$243. Her daughter sold for the next highest price, going at \$232.

The three cows that had not been tested brought a far different average. These three cows sold at just \$78 each. To look at, these cows were just as good as the other nine. Their breeding was the same. They had no records back of them; therefore, they brought an average of \$90 less than the nine cows in the herd that were tested.

This would seemingly prove: that cow testing raises the worth of the cows sold; that records are appreciated; and that bidders are willing to pay the price for cows that have been proven good producers.

The mere say-so of the one who does the milking no longer stands as good evidence of a cow's worth in the auction ring. Bidders now want black and white records read from the books of a cow testing association.—S. Morrish.

ALPENA-LEER DAIRYMEN LEARN FROM COWS.

THE Alpena-Leer Cow Testing Association finished the first year of testing. Carl Jennings, tester, found that fourteen of the twenty-eight herds averaged more than 300 pounds of butter-fat per cow. The high herd was owned by Richard Randall, five grade Guernseys, producing an average of 8,027 pounds of milk and 366.9 pounds of fat. The high mature cow was from the herd of Norman Hobbs, a grade Holstein producing 14,238 pounds of milk and 500.1 pounds of fat. The high four-year-old was a pure-bred Guernsey from the Fletcher Paper Company herd producing 11,474 pounds of milk and 514.9 pounds of fat. This cow also ranked high individual in the association. The high three-year-old was a pure-bred Guernsey from the same herd with the production of 8,135 pounds of milk and 429.3 pounds of fat.

out during the year. Three silos were constructed. Legumes seeded during the year included seventy five acres of alfalfa on twenty-eight farms, forty acres of sweet clover and ten acres of soy-beans.

THE INFLUENCE OF A GOOD BULL.

IN the midst of the Alpena-Leer Cow Testing Association is the Leer Guernsey Bull Association. This bull association has been operating for a long number of years. Tester Jennings tabulated the records of the daughters sired by the pure-bred Guernsey bull, Golden Berkshire, No. 32039. It will be noted that the dams averaged one more month in milk and fat and exceeded the daughters by only eleven pounds of fat, even though all of the daughters are two and three years old. The comparison follows:

Dams.			
Age.	Months in Milk.	Milk.	Fat.
Mature	10	6,974	314.8
Mature	11	6,738	322.4
Mature	11	7,776	368.1
Mature	6	4,560	207.8
Mature	12	8,664	419.7
Total	50	34,712	1,632.8
Average	10	6,942	326.6

Daughters.			
Age.	Months in Milk.	Milk.	Fat.
Three	5	4,564	217.9
Three	10	7,036	324.7
Two	11	6,797	345.6
Two	9	6,802	316.2
Three	10	7,806	353.9
Total	45	33,005	1,558.3
Average	9	6,601	311.7

"Fewer Bulls and Better Bulls" is a worthy slogan for Michigan dairymen.

LAMPMAN CATTLE COME TO MICHIGAN.

M R. DAVID B. MILLER, proprietor of the Miller Jersey Farm at Eaton Rapids, Michigan, recently selected twenty-two head of cattle from the herd of L. B. Lampman, at Coxackie, New York, after an extensive trip in

which he visited many herds in the middle west and the south.

Mr. Miller has been looking around for some time to purchase a carload of Jerseys that combined good breeding and individuality, and finally found an opportunity to make a selection from a herd that for many years has been well known to Jersey breeders of the east. The animals he selected were nearly all young cows which were heavy in calf, and all representative of the best lines of breeding available.

Mr. Miller was fortunate in running across such an opportunity, as he will have an excellent lot of matrons from which to breed, and, in addition to this, he made his purchase from a herd that has never had a reacting animal.

The Lampman herd, which at one time, consisted of over one hundred head, and which has been in existence for over forty years, is now nearly dispersed, as it is the intention of the present owner to discontinue farming and dispose of the live stock as well as the real estate. For many years it has been one of the show places of the Hudson Valley and is quite an unusual place in the fact that of the 1,000 acres there are practically 800 acres that are, or have been, in cultivation.

VOTE TO CLEAN UP HERDS.

THE Houghton county board of supervisors has received and taken under advisement the contract with the State Department of Agriculture for the joint anti-bovine tuberculosis campaign that will be put on in that county later on. The contract calls for the employment of a full-time state veterinary inspector, whose salary will run at the rate of \$2,500 per annum, while the county will bear his expenses, including the cost of transportation. The county will furnish identification tags for inspected cattle. The state furnishes chemicals, blanks, clerical help, etc. The state and federal governments jointly pay the indemnities.

When the finance committee of the board of supervisors, and the board itself, approve the contract, Houghton county will go on the waiting-list for the tuberculosis campaign. It is not expected that Houghton county will be reached this year.—L. A. Chase.

EXCESSIVE SEXUAL DESIRE IN BREEDING COWS.

THIS is a condition in which the animal has an unusually strong sexual desire and though bred at frequent intervals, no permanent results are noticed. Such cows do not get with calf.

During the first period of this condition it is possible in many cases that very little change is noticed in the condition of the animal, but if the condition does not improve very gradually lose flesh and become weak and nervous; they become greatly emaciated in the course of time. It is quite frequently that females that are so affected are known as "bullers" for they will take the bull at any time. If they do happen to get with calf, they very often have an abortion in a short time.

This condition is brought on by a congestion of the organs of reproduction, due to excessive feeding of concentrated feeds, or from an inflammation that may spread from other diseased organs. It is often found in animals that are in very high condition and most often in young heifers. It may be caused by a tubercular condition of the uterus or the ovaries; it may also be caused from excessive fitting for show or sale purposes.

If the animal is not an unusually valuable one, it is often best to market them for food purposes as soon as they can be turned to advantage. If they are valuable for breeding purposes they should be placed by themselves where they can have plenty of exercise; they should receive plenty of forage and if in the summer time should be turned to grass. If this condition

has been due to heavy feeding or feed that has been too rich and concentrated, this should be changed gradually to a different ration. It is best in cases of this kind to secure the best veterinarian that you can find and then work under his direction. They should be kept away from all excitement which is caused by being with other animals.—G. H. C.

LEAGUE CANCELLATIONS FEW.

ACCORDING to recent announcements from the New York office of the Dairymen's League Cooperative Association, Inc., the total number of cancellation notices received from pooling dairymen up to and including February 21, the middle of the withdrawal period, was 626. This number is quite a bit less than the number of cancellations reported at the same time in the withdrawal period a year ago.

HIGH QUALITY AYRSHIRES GO TO GRATIOT COUNTY.

THERE was delivered at Ithaca, Michigan, late in January, one of the best lots of Ayrshires ever assembled in this country as a foundation herd. Selected for the farm of James E. Davidson, Bay City ship builder, by A. Minty, an experienced stockman from the native home of the breed, they combine to an unusual degree, choice, individuality and the ability to produce, and give Mr. Davidson breeding material such as many breeders spend a lifetime to secure.

Peter McClellan, a Canadian Ayrshire man who has proved himself capable of securing the best of results with the breed, is in charge of the herd. It is housed in thoroughly modern stables equipped for the comfort of the cattle and for securing the most favorable returns from them. This transaction establishes in Michigan one of the choicest Ayrshire herds in the country and is sufficiently outstanding in average quality to give it high rating among the leaders in the central west.

The herd of forty-three animals, including eight calves, was secured in two consignments, a draft of sixteen head from the show herd of Adam Seitz & Sons, Waukesha, Wisconsin, and selections of twenty-seven head from three Canadian farms. Mr. Minty set out to buy the best which could be found, requiring type first and with it plentiful evidence of milkiness. He saw the Seitz exhibits at central western fairs and made his chief Canadian purchases at the Royal at Toronto.

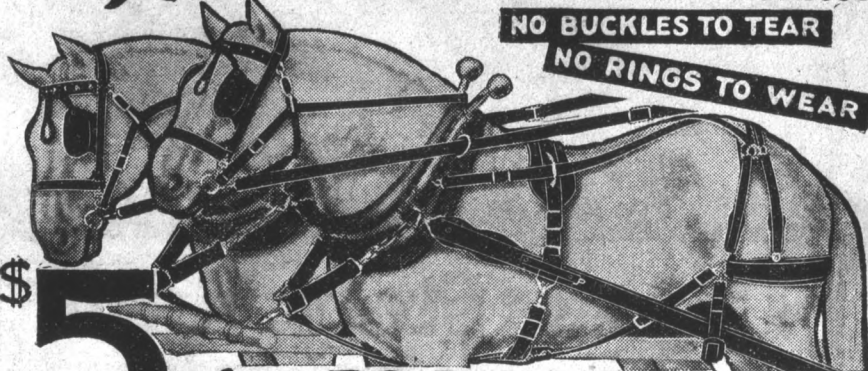
GOOD YIELDS IN CLOVERLAND.

THE department of agriculture has published its annual summary of crop yields for Michigan during the year 1924. This summary shows that last year the Upper Peninsula produced 99,655 bushels of winter wheat on 4,500 acres, this being a yield per acre of 22.1 bushels. Corn was produced on 11,100 acres, amounting in all to 134,750 bushels—an average of 12.1 bushels per acre, which is far below the ten-year average of 27.7. Oats were produced on 87,000 acres, yielding 3,419,040 bushels—an average of 39.3 bushels, which is higher than the ten-year average of 32.2. Rye was produced on 7,000 acres, amounting to 153,600 bushels—the per acre average being 21.9, which is well above the ten-year average of 18.3 bushels. Potatoes were produced on 19,000 acres, amounting to 2,892,350 bushels—a per acre average of 152, while the ten-year average was 122 bushels. Of beans there were only 200 acres, raising mostly in Dickinson, Delta and Marquette counties. The total yield of beans was 1,890 bushels, being 9.4 bushels per acre. The acreage of tame hay was 272,000, which produced 339,565 tons, making the yield per acre 1.43 tons, while the ten-year average was 1.34 tons.

The New 1925 Walsh No-Buckle Harness

NO BUCKLES TO TEAR

NO RINGS TO WEAR



\$5 after 30 Days Free Trial

SEND NO MONEY. Before you buy harness, let me send you a set of Walsh No-Buckle Harness on 30 days' Free Trial, to show you why this harness is three times stronger without buckles, better looking and handier in every way. If not convinced that it is the best harness you ever laid eyes on, send it back at my expense. The Walsh is a proven success on thousands of farms for over nine years.

Three Times Stronger Than Buckle Harness

Buckles weaken and tear straps. Walsh 1½-inch breeching strap, tested in a steel testing machine, holds over 1100 lbs. The same strap with buckle breaks at the buckle at about 360 lbs. pull. Ordinary harness has 68 buckles. Walsh Harness has no buckles. Easy to see why Walsh is three times stronger than ordinary harness. Packer's Northern Steer Hide Leather—best that can be tanned. All Walsh leather given the most rigid inspection test known in the harness industry—my free book tells all about it.



Fancy Line Spreaders

Order your harness early and be ready for the rush of spring work. Break-downs with old harness mean costly delays. I am offering a pair of handsome Fancy \$3.00 Line Spreaders Free as a special award for early orders.

COSTS LESS—LASTS LONGER

The Walsh Harness costs less because it saves many a dollar in repairs. No patching, no mending, because no rings to wear straps in two, no buckles to weaken and tear straps. Greatest advance in harness making. Easily adjustable to fit any horse. Write today.

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Balance easy payments, or cash after trial if you wish, otherwise return it to me at my expense. Write today for free book, prices, easy payments and thirty days' trial offer, and arrange to get a set of the Fancy Spreaders without cost.

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They judge it by results. There is no other way.

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It is easy to compare the results you are getting from your present grain ration with the results you get from Unicorn:

Take the number of pounds of milk you get from your entire milking herd, today.

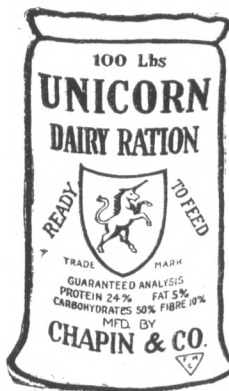
Divide this number by the number of pounds of grain you feed today.

This gives you the number of pounds of milk you are now getting from each pound of grain.

Go to your feed store and get a month's supply of Unicorn. Feed it to your herd, taking six days to make the change.

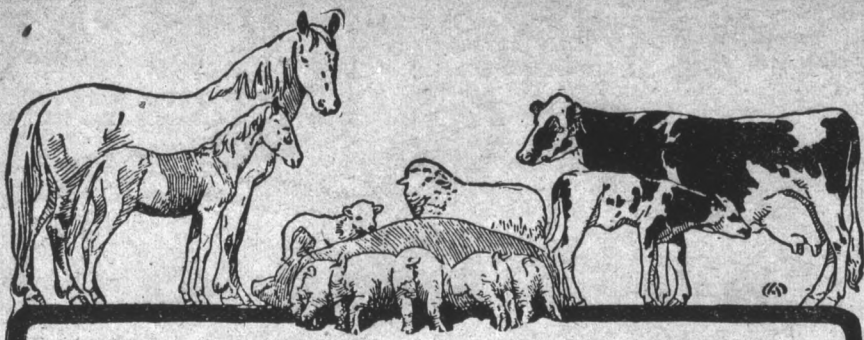
In ten days or two weeks, weigh milk and feed again. You'll be pleased to find that you are getting the same milk-flow—but with much less feed.

Unicorn gets results—cuts your grain cost of producing milk.



Ask your feed dealer or write us for the little folder, "How To Feed Unicorn." Tells you how to feed all kinds of cows, with various forms of roughage and your own grains.

CHAPIN & CO., 327 S. La Salle St. CHICAGO, ILL.



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The Springtime Conditioner

SPRINGTIME is the time that farm stock are out of fix. A long winter diet on dry feed—woody timothy hay, corn fodder and other roughage—tells in ill condition; blood out of order and worm pestilence.

Give their systems a spring house-cleaning with a course of Dr. Hess Stock Tonic.

It will put your cows in trim for summer milking. Excellent for cows at calving. Feed it before freshing. It will relieve your brood sows of constipation, all hogs of worms. It will put your young stock, calves and shoats, in fine condition for summer gains.

Fit your team for spring work with a course of Dr. Hess Stock Tonic. It gives them strength and endurance. You can feel it on the lines.



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For Sheep Ticks - for Hog Lice - for Health

Michigan Jersey Breeders Attention. Complete Dispersal
37—HEAD OF REGISTERED AND PURE BRED JERSEYS—37
PARMA JERSEY FARM MARCH 9, 1925 PARMA, MICH.

the leading herd in Jackson county cow testing associations for three years leading with 50% of the high 10 cows for 3 yrs. AN OPPORTUNITY TO GET A CAR LOAD OF THE BEST C. T. A. JERSEYS in MICH., COMPRISING THE 16 GRANDDAUGHTERS OF OXFORD DAISY'S FLYING FOX BY HIS SON OUT OF SEGNA'S VARIELLA 252717, Gold Medal COW, 923.4 lbs. butter from 13,736 lbs. milk, and 11 daughters of SOPHIE'S ADORA'S MERMAN, the herd sire, ONE OF THE BEST BRED BUTTER BULLS IN THE STATE OF MICH. The average of his 6 nearest dams 750.5 lbs. butter from 11,905 lbs. milk. Write for catalog and learn more about this choice herd, as we have proof that they pay at the pail.

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Write M. E. Bloss, Sales Manager, Vernon, Mich. for Catalog.

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Registered Aberdeen-Angus, six bulls from
eight to sixteen months, large and
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LOVE PINE RANGER our new Herd SIRE has a
Dam with an A. R. O. record 936 fat. When in the
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Young bulls from A. R. cows for sale.
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FOR SALE Reg. Guernsey Bull, SU-
per King of Bon Ayre.
4 yrs. old in May. \$100. B. T. BATES, R. 1, New
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The Traverse City State Hospital herd of 200
head is made up principally of daughters of
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ADMIRAL WALKER COLANTHA, sire of 9
from 30 to 38.5 lbs. in 7 days, and 8 from
908 to 1,254 lbs. butter in 365 days.
KING SEGIS D.K.P. NETHERLAND, sire
of 7 from 30 to 33 lbs., and 5 from 932
to 1,100 in a year.

TRAVERSE PRINCE, sire of
5 30-lb. daughters, and 3 from 930 to
1,080 lbs. in a year. Only 10 of his 84
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ECHO SYLVIA KING MODEL, sire of 46
with records as 2 and 3-yr.-olds, including
a 32-lb. Jr. 3-yr.-old.
Sires now in service are 2 grandsons of
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BUREAU OF ANIMAL INDUSTRY,
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of Registered and grade Holsteins, Brown Swiss and
Guernseys will be sold March 10th at the Village
Farms stables at Grass Lake by the Grass Lake Cow
Testing Association. All animals owned by members
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sale. Address Box 19.

Grass Lake, Michigan
Asking for Catalog.



My Ton Litter

How I Produced It

By Ernest Barnard

THE sow that I entered in the ton litter contest was a pure-bred Poland China. During the winter she received no special care but ran around the barnyard with ten or twelve other sows. Besides eating corn out of the bundle, while the cattle and sheep were eating, the bunch of sows were given a bushel of whole oats once a day. They slept around the straw stack and in a shed under the stack.

About two weeks before farrowing this sow was put by herself and fed a few whole oats and given a light feed of ground wheat and oats, mixed up with a little milk and water.

This was the first litter from the sow and she was a little under thirteen months old when she farrowed the thirteen pigs. She had more than I cared to have her raise at her age so I disposed of two of them immediately. Both the dam and grand-dam of this sow were producers of large litters.

The farrowing pen was an A-shaped coop, 7x9 feet. There was a door at

any better for standing a few hours; with me it was simply a matter of convenience.

After the pigs were about four months old they had access to whole oats at all times.

When I entered the contest I thought I could make a 2,500-pound litter of these pigs without spoiling them in any way for breeding purposes. My aim was not to see how heavy I could make them, but how good, from a breeder's standpoint I could make them at 180 days. At no time were they fed corn or anything to make them fat, and when the eleven pigs were weighed in on the 180th day at 2,686 pounds they were just in good shape to be put through a sale ring and go out as breeders.

As for any changes in the plan I followed this year, I might say that had corn not been so high priced I should have given them, once a day, either what shelled corn or corn on the ear that they would eat up clean in twenty minutes. I should have fed the corn in connection with the other feed and preferably at night. That amount of corn would not have been enough to fatten them, but in my opinion, it would have made a little better balanced ration.



At 180 Days This Litter Weighed
2,686 Pounds.

one end and one at the side. There was also a small window at each end and a pig-rail around the two sides and one end of the pen. This pen was well cleaned and was bedded with wheat straw.

I was with the sow while she farrowed and looked after her frequently for eight or ten hours afterward. For about twenty-four hours she was given nothing but water. After that she was given a few whole oats. From then on, until the pigs were two weeks old, the sow was fed whole oats once a day, and twice a day she was given ground oats and wheat (about half-and-half by weight), mixed up with a little skim-milk and water. She had about an acre of clover pasture to run in. After the pigs were about two weeks old the sow was not given the whole oats, but the amount of ground oats and wheat was gradually increased. She had no minerals except a little salt and sulphur and all the soft coal slack that she cared to eat.

The pigs ran with the sow until they weaned themselves when they were about ten or twelve weeks old. When they were about six weeks old they commenced to eat along with the sow. When they grew older we fenced off a little feeding pen and continued to feed them the same rations until they were about three months old. By that time my wheat was gone, and instead of buying wheat to grind with the oats, I bought middlings. From that time on they were usually fed, three times a day, a slop of ground oats and middlings with occasionally a little bran mixed in.

The skim-milk that was used ordinarily stood from one milking time till the next. I don't know as it was

NEW HIGH IN HOG MARKET.

HOG prices advanced to a new high point for the winter with the Chicago top at \$1.75. The \$12 hog is not far away. The average price is running about \$4 higher than a year ago. The supply in the eastern states seems to be running out and eastern shipping orders have taken a good-sized fraction of the arrivals at Chicago and St. Louis. Furthermore, arrivals are considerably lighter than they were at this time a year ago. Muddy roads have interfered with country loading but the remaining supply in the country is working into stronger hands.

Domestic demand for hog products still maintains remarkable breadth. The accumulation of hog meats in storage since the beginning of the winter packing season on November 1 has not been as heavy as might have been expected, in view of the enormous rate of slaughter, the falling off in export demand, and the influence of higher prices on domestic consumption. Total stocks of hog meats on February 1 amounted to 880,000,000 pounds compared with 801,000,000 pounds on the same date a year ago and a five-year average of 684,000,000 pounds.

FINANCING RECORD OF MERIT WORK FOR SHEEP.

IN a recent issue was explained the plans of the fine wool sheep breeders of the state for recording sheep of merit in the production of wool. One matter was not included in that story. It pertains to the payment of expenses. It was voted by those joining in the scheme that owners should pay actual expenses of the representative of the M. A. C. in attending to the shearing of their sheep. This was done with the understanding that the extension department of the college would stand such expenses for the first two years, or until the work had become firmly established. Thereafter, owners will foot the expenses incurred by the college men in supervising the shearing, as stated above.

Quality Holsteins Young Bulls up to 8 months of age. Good Individuals and Well Bred. at from \$50 to \$75, according to age. I. M. SHORMAN, Fowlerville, Mich.

HOLSTEIN or GUERNSEY dairy calves, 7 weeks old. \$20 each, crated for shipment. Edgewood Dairy Farms, Whitewater, Wis.

Financial King Jerseys Our bulls of serviceable age are all sold, but we have a few bull calves of excellent breeding, sired by our great herd sire, Financial King Sensation. Our prices are reasonable. COLDWATER JERSEY FARM, Coldwater, Mich.

JERSEY BULL Dropped Mar. 2, 1924. Sire, his grandson of Faurie's Prince. His dam, Senator's Surprise, R. of M. record 485 lbs. butter at 2 yrs. 3 mo. of age. She is a double granddaughter of Oxford Daisy's Flying Fox. Jesse A. Kline, Gladwin, Mich.

Jerseys For Sale Bulls ready for service, also a few females. All from R. of M. dams. Accredited herd. Smith & Parker, R. D. No. 4, Howell, Mich.

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

15 Cows, 4 bulls from R. of M. Cows. Chance to select from herd of 70. Some fresh, others bred for fall freshening. Colon C. Lillie, Coopersville, Mich.

MILKING SHORTHORNS Good individuals. Best milking inheritance. Both sexes. All ages. GEO. T. FULLER, R. 10, Battle Creek, Mich.

ELM LAWN SHORTHORNS One bull calf 8 months; a few cows and heifers. HARRY CROSBY, Grand Blanc, Mich.

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

Shorthorns For Sale both sexes. Barr & Curtis, South Bay City, Mich.

Milking Shorthorn Bulls Reds and Roans. Write me your wants. WASTA HUBER, Gladwin, Michigan.

Polled Shorthorns both sexes. Federal accredited Herd. PAUL QUACK, R. 2, Sault Ste. Marie, Mich.

Red Polled Cattle Bulls, cows and heifers. Large Yorkshire Swine. DON P. CARR, Homer, Mich.

HOGS

DUROC JERSEY SWINE for sale. Type and quality our aim. Write your wants. W. E. BARTLEY, Alma, Mich.

Duroc Sows and Gilts Choice sows and gilts bred to Michigan's Grand Champion Boar for March and April farrow. Also a few swine boars. LAKEFIELD FARM, Clarkston, Mich.

BRED SOWS ALL SOLD offering fall pigs, shipped. C. O. D. ALBERT DORR, Clinton, Mich.

O. I. C's Fall pigs, sired by "Giant Boy" and "Jumbo's Bell Boy." Brown Swiss Bulls. Milo H. Peterson, R. 2, Ionia, Mich.

Francisco Farm Poland Chinas Now offering some wonderful bred gilts, granddaughters of National Grand Champion—at prices you can pay. P. P. POPE, Mt. Pleasant, Mich.

Spotted Poland China SALE 40 head, March 19th. These gilts are by Grand Champion boar and mated to Leopard Improver, Jr. Four fall boars. OSCAR VOELKER, Pigeon, Mich.

Big Type Poland Chinas Choice gilts bred for Mar. & April farrow, for sale. WESLEY HILE, Ionia, Mich.

Fall Pigs either sex, by the great Boar, The Wolverine. Priced reasonable. Best of dams. W. E. LIVINGSTON, Parma, Mich.

For Sale Large Type Poland Chinas either sex. Also Brown Swiss Bulls. A. A. FELDKAMP, Manchester, Mich.

Hampshires For Sale nice spring and fall Boars. Choice bred gilts, 12th year. JOHN W. SNYDER, R. 4, St. Johns, Mich.

SHEEP

FOR SALE

20 Registered Black Top Delaine ewes; Ten ewe lambs, and ten ewes from one to five years old. Ewes bred to prize winning rams. \$600 takes the bunch. W. C. HENDEE & SON, Pinckney, Mich.

SHEEP FOR SALE 50 Registered Hampshire ewes. Bred to prize winning rams, to Lamb in April. A. M. WELCH & SON, Ionia, Mich.

Breeding Ewes for sale, extra good young Delaines. V. B. FURNESS, Nashville, Mich.

HORSES

WARNING STALLION PURCHASERS Be sure that the stallion you are buying has a clean Michigan State Enrollment. Purchase subject to approval for soundness and registry papers, by the Department of Agriculture, Lansing, Michigan.

Michigan Horse Breeders' Association, R. S. Hudson, Secretary, East Lansing, Mich.

FOR SALE One Registered Percheron Stallion, four years old. Weight 1,800 lbs., well broke and nice to handle. Price right. E. A. ROHLFS, Akron, Mich. Box 6, R. F. D. No. 3.

For Sale 1 Percheron Stallion, 3 years old, of the Ton Type. E. R. Van Vollenburg, Milan, Mich.

CATTLE MARKETS SHOW IMPROVEMENT.

DECIDED improvement in the cattle trade has been reported in the last few days. Receipts have fallen off sharply, with signs that they may begin to run lighter than a year ago, in line with the reported decrease in numbers on feed. Dressed beef trade also improved decidedly, indicating that the prolonged period of congestion may be over.

Prices have advanced twenty-five to fifty cents on practically all grades of steers, with some appreciation in the beef cow and heifer market. The present week may bring a setback but the chances are that the main trend is upward at last. The lenten period is just starting and light receipts will be necessary if prices are to make permanent gains. The calf market is feeling the first effect of the early spring run of veals.

In spite of the influence of high prices for corn, and its poor feeding quality, receipts of prime and choice steers are larger than usual at this season of the year. In the week ending February 14, 2,851 such steers arrived at Chicago, compared with 584 a year ago, 596 two years ago, and seventy-three three years ago. During the same week, only 737 common beef steers were reported sold for slaughter compared with 4,800 last year, 5,027 two years ago, and 6,001 three years ago. Presumably, these figures are representative of conditions at other markets, and explain why prices on good cattle continue to sell about \$1 lower than at this time a year ago. Common and medium grades, on the other hand, are in much the same notch as they were last year at this time.

Demand for stocker and feeder cattle is improving slightly. Some buyers are taking out fleshy steers in anticipation of scarcity and higher prices for finished cattle toward spring. Others who have an abundance of rough feed are buying for summer grazing, in an effort to avoid the spring rush. Prices on thin cattle are at the highest point since last October, and will probably continue their upward trend.

FEEDING THE HOGS MINERALS.

THIS is the time of year when hogs need minerals. Of course, they need them at all times, but when they have access to good leguminous forage or a chance to root freely in the ground, they will usually get what is absolutely necessary. After they have been deprived of fresh forage for some time and the ground has been frozen solid to prevent their rooting, and perhaps their ration has been confined to grains for an extended period, the hog's system seems to demand something more.

I think there is no time throughout the year when minerals, artificially supplied, are as essential to the hog's health and well being as the late winter months. We aim to keep some sort of a mineral before our hogs at all times, sometimes it is nothing but a block of salt. But often, and especially in winter, we prepare a mixture of minerals, the best we can get together and place where they can have free access to them.

Ashes from hardwood are especially good. They furnish both lime and potassium and aid digestion. Salt and sulphur are good additions, and, as a carrier of phosphate, I think, there is nothing equal to raw phosphate rock or floats, as it is commonly called. It is not often easy to obtain in the small quantities needed for hogs, and so we may need to use the treated rock or acid phosphate as a substitute. The valuable ingredient of soft coal, which we have often heard recommended for hogs is only ordinary sulphur.

There are many combinations of minerals that may be fed to hogs and in addition, there are many prepared mineral mixtures on the market. I believe we are safe in saying they are all good, although there is little doubt but that some are much better than others.

lieve we are safe in saying they are all good, although there is little doubt but that some are much better than others.

There is considerable investigation going on at the present time to learn the importance of minerals in the hogs ration and also the best form in which to supply them. We know comparatively little about the subject as yet, except that it is important, and in all probability, when it becomes a common practice to feed hogs the proper minerals, such troubles as "hairless pigs," "rickets," "breaking down," "abortion," or "going down behind," will be troubles of the past.

What little is known of the cause of these common troubles in hogs is mostly a "lack of something," and so far as I have been able to learn they are unknown where hogs are well cared for and supplied with a completely balanced ration which must include a variety of minerals.—P. P. Pope.

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.

Garget.—My cow gives stringy milk, but she does not appear to be sick. Her milk has a bad odor. L. T. S., Portland, Mich. Apply camphorated oil to udder daily, give her a half ounce of fluid extract of phytolacca in feed or water two or three times a day.

Chronic Cough.—Have horse which is troubled with chronic cough. B. W., Lucas, Mich.—Don't feed her clover or dusty, musty, badly cured fodder, wet her feed with lime water. Give two drams of muriate of ammonia at dose in feed or in drinking water three times a day.

Sterility.—Have two young cows which came fresh last fall; since then neither of them have been in heat. A. V. K., Holland, Mich.—Both cows will perhaps come in heat as soon as warm weather sets in. Give each cow 40 drops of fluid extract of nux vomica, in ground feed two or three times a day. Keep them warm.

Unhealthy Skin.—We have thirteen cows which are kept in a basement barn, nearly all of them have a scaly condition of the skin near root of the tail. Have searched for lice, found none. I have applied lice powder but it gave no relief. N. F., Shepherd, Mich.—Groom your cattle, also apply one part Creolin mixed in 50 parts of water, to diseased parts twice a week. If she has few lice this solution will destroy them. Spread sulphur on the floor, and fresh lime wash to stalls and walls.

HORSE SALE

Michigan Horse Breeders' Association, Farmers' Week, February, 1926. Fit your horses then List your horses with R. S. HUDSON, Sec'y-Treas. East Lansing, Michigan.

DIPSERSA LSALE—Registered Holstein Cattle (ACCREDITED HERD) TUESDAY, MARCH 10, 1925.

At the farm, 8 miles southeast of Fowlerville, or 8 miles southwest of Howell, on good road. Having leased my farm I will sell my entire herd of Registered Cattle, consisting of 26 head, all under 5 yrs. old, except two, 12 head by a 36-lb. bull, 10 head by a bull whose dam has 1,012 lbs. butter and over 24,000 lbs. milk in one year. 3 due soon. Cows have C. T. A. Records. Farm Sale at 10:00 A. M. HENRY J. GEHRINGER, Fowlerville, Mich.

Ardenteenie Stock Farm Dispersal

MARCH 12, 1925 — LANSING, MICH.

36 Registered Holsteins

Under State and Federal Supervision

This includes Michigan's Grand Champion bull of 1922, Capital Cream Jupiter Hengerveld, and his daughter, undefeated junior heifer calf in Mich., 1924, together with 14 of her sisters from dams with good records and carrying 75% of the same blood lines as Detroit Creamery's 30,000-lb. cow, Martha Vindetta De Kol 3rd, the third highest milk producing cow in the state. 10 of these heifers are bred for fall freshening to a son of College Butter Boy, a bull of excellent type and winner of 7 firsts and 5 champions in Mich., 1924. Sale starts at 1:00. Write for catalog.

A. R. BLACK & SONS, Lansing, Mich.

GALVANIZED Corrugated ROOFING!

\$3.55 PER SQUARE

Freight Paid as Follows:

Freight charges prepaid in full on all orders of roofing from this advertisement at prices shown to Illinois, Indiana, Ohio, Wisconsin, Michigan and Iowa. If your state is not included, proportionate differences in freight will be allowed or we will quote you upon receipt of your request.

Galvanized, Corrugated Roofing and Siding, reclaimed stock in excellent condition, squarely trimmed and painted red.

No. HA-100—Galvanized corrugated sheets (reclaimed) per sq. 100 sq. ft. \$3.55

PAINTED ROOFING AND SIDING

No. HA-200—Standard weight overhauled painted 2 1/2 inch. Corrugated sheets—suitable for siding—per sq. of 100 sq. ft. \$2.54

No. HA-300—Medium weight overhauled painted 2 1/2 inch. Corrugated sheet—for roofing or better siding—per sq. 100 sq. ft. \$2.94

RED AND GRAY SLATE COATED ROLL ROOFING

No. HA-400—New Slate Coated Roofing in rolls of 108 sq. ft. Complete with nails and cement. Wt. 85 lbs. Red or gray. Per roll \$2.04

No. HA-500—New Heavy Smooth and Surfaced Roofing—sound and durable. Easily taken care of. Adapted to every roofing need. Complete with nails and cement. Per roll \$1.62

HARRIS BROTHERS CO.
35th and Iron Streets, CHICAGO

MAIL THIS COUPON NOW!

HARRIS BROTHERS CO., Chicago, Ill.
Dept. HA-42

Fill out coupon below and we will send you our estimate of cost for your building.

How Much Roofing Will You Need?

What Kind Do You Prefer?

NAME

ADDRESS

YOUR MOTOR NEEDS

MonaMotor Oil

Dick, it was terribly embarrassing

"There I was with a car full of friends and the motor knocking along without a bit of power. Dick, can't you do something about it?"

Yes! He can buy **MonaMotor Oil** and give his motor a chance to stage a come-back.

Perfect lubrication is one of the secrets of a reliable and powerful motor.

Monarch Manufacturing Co.
Council Bluffs, Iowa Toledo, Ohio

MonaMotor Oils & Greases



THE LATEST MARKET REPORTS



GRAIN QUOTATIONS

Tuesday, March 3.

Detroit.—No. 1 red \$2.00; No. 2 red \$1.99; No. 2 white \$1.99; No. 2 mixed \$1.99.

Chicago.—July \$1.73½@1.74; September \$1.56@1.56½; May \$1.99¼@1.99½.

Toledo.—Wheat \$1.98½@1.99½.

Corn.

Detroit.—No. 3 yellow \$1.28; No. 4 yellow \$1.23; No. 5 yellow \$1.18.

Chicago.—July \$1.37½; September \$1.36; May \$1.35½@1.35½.

Oats.

Detroit.—No. 2 white at 58c; No. 3 white 57c.

Chicago.—July at 56c; September at 54½c; May 54½c.

Rye.

Detroit.—Cash No. 2, \$1.58.

Chicago.—July \$1.44½; September \$1.28½; May \$1.66.

Toledo.—\$1.54.

Beans.

Detroit.—Immediate and prompt shipment \$6.20@6.25 per cwt.

Chicago.—Navy, choice \$6.65@6.75; red kidneys \$10@10.50.

New York.—Choice pea \$7.15@7.25; red kidneys \$10.25@10.50.

Barley.

Detroit.—Malting \$1.08; feeding at \$1.01.

Buckwheat.

Detroit.—\$2.20@2.25.

Seeds.

Detroit.—Prime red clover cash at \$18.65; alsike \$12.85; timothy \$3.10.

Hay.

Detroit.—No. 1 timothy at \$16@17; standard and light mixed at \$15@16; No. 2 timothy at \$14@15; No. 1 clover and No. 1 clover mixed \$14@15; wheat and oat straw \$10.50@11; rye straw \$12.50@13.

Feeds.

Detroit.—Bran at \$32; standard middlings at \$33; fine middlings \$39; cracked corn \$57; coarse cornmeal at \$55; chop \$41.

Apples.

Chicago prices on apples: Northern Spies at \$8.50@9 bbl; Baldwins \$6.50@6.75; Jonathans \$9.50 bbl; Kings at \$6.50@7; Greenings \$7@7.50 bbl; Wagener \$5.25@5.50 bbl; Grimes \$5.50@5.75; Starks \$6@6.50; Ben Davis \$5@5.50.

WHEAT

Wheat prices have had a smart recovery in the last week. Fair export sales and expectations of bullish reports on farm reserves furnished the ammunition for starting the upswing. Advance estimates indicate that farm reserves of wheat are small, a view that is supported by the heavy movement to primary markets thus far in the crop year. The visible supply decreased last week but it is much larger than in years when a squeeze has resulted because of a shortage of grain for delivery on May contracts. It is still too early to determine the condition of the winter wheat crop, but complaints of damage are not widespread. Part of the dry area in the southwest has had rain the last week, and the condition of the Kansas crop is better than when winter began.

RYE

Rye prices are taking their cut from wheat most of the time. The visible supply is shrinking more slowly than wheat, the seaboard stocks are not disappearing very rapidly, and the reports of sales a month or six weeks ago have not yet been confirmed by clearances. Foreign countries continue to get along with less imported rye than their estimated needs.

CORN

Corn prices have averaged higher in the last week. The market is a struggle between an extremely slow demand and a large visible supply on the one hand, and a small movement to primary markets on the other. Receipts proportionately as light as they have been recently, continued over the next four or five months, could offset the slow demand and large stocks and bring about commercial scarcity after all.

OATS

The oats market is about the same as a week ago. Demand has improved slightly, but there is little prospect of distributing the burdensome stocks of oats before the new crop. While farm reserves of corn and wheat are believed to be below normal, holdings of oats still in first hands probably are above normal.

SEEDS

Seed markets are dull with prices depressed by listless buying. Cash demand should improve with the opening of spring as few farmers have their sowing requirements. A decline in prices followed by quiet trading frequently precedes the heavy spring demand so that the present dullness may be the forerunner of a more active market.

HAY

The hay market declined again last week. Mild weather curtailed consumption, and dealers are still stocked up from the big January run so that demand generally was very dull. Top grades of hay are scarce and find a fair demand at all times. The market is glutted with poor grade hay which is hard to move even at big discounts. Prices for this lower grade stuff are so cheap that they frequently leave only a small return to the shippers after the expense of hauling and shipping have been deducted.

POULTRY AND EGGS

Egg prices have declined to new low levels for the year. Declines have been even more drastic in primary markets where prices are based on the prospective value at the terminal markets. Country collections are increasing rapidly. The present declines have not been unexpected, as a good-sized downturn usually occurs just before the season of buying and packing for storage. Prices during the first part of the new egg year, which begins March 1, will undoubtedly average higher than a year ago when, at one time during the flush of production, eggs were cheaper than at any time in eight years.

Chicago.—Eggs, checks at 27c; fresh firsts 29@30c; ordinary firsts 28c. Live poultry, hens 24@25c; springers 28c; roosters 18c; ducks 27c; geese 14c; turkeys 23c.

Detroit.—Eggs, fresh candled and graded at 29½@31½c. Live poultry, heavy springers 29c; light springers 24@25c; heavy hens 29c; light hens 24@25c; roosters 16¼@17c; geese 18@20c; ducks 32@33c; turkeys 35c.

BUTTER

Butter prices are firm after the re-

cent advance of three cents a pound. Consumption is satisfactory and production continues lighter than a year ago. High-priced feeds have induced lighter feeding, condensaries are actively bidding for milk in view of their small stocks, cheese factories have been netting more money for milk than creameries were able to pay, all of which has contributed to the lighter make. The movement of storage stocks into distributive channels so far in February has been nearly 200 per cent larger than in the same period a year ago. Foreign markets are firm at the recent advance so that there is nothing to fear from imports of butter. Prices for 92-score creamery were: Chicago 43½c; New York 44c. In Detroit fresh creamery in tubs sells for 39@42c per pound.

BEANS

The bean market is slightly higher with C. H. P. Whites quoted at \$6.35 per 100 pounds for prompt shipments F. O. B. Michigan points. Deliveries have been light because of bad weather and belief in higher prices on the part of many growers. The demand is slow, however, as canners are buying few and wholesale grocers are taking beans only on a hand to mouth basis. It is possible that the upturn will stimulate some buying but most distributors are inclined to wait for a slightly lower level of prices. In general, the disposition is to wait for slightly lower prices. There seems to be a good latent demand for beans that would show up if the price dropped to \$6.

WOOL

The wool market is still rather unsettled and fine wools are still easing in price. The decline in price seems to have stimulated the interest of manufacturers to some extent and the efforts of the Australian wool dealers to stabilize prices by withholding wool from the market, have inspired some confidence. On the other hand, some holders of wool bought considerably below the present market are willing to sell on the decline.

POTATOES

Midwestern potato markets were steady last week, although the eastern markets declined, losses ranging from 10 to 35 cents per 100 pounds. Carlot

shipments of potatoes decreased about 600 cars during the week. Some new potatoes are beginning to come on the market. Compared with last year, the acreage planted or intended to be planted to early potatoes shows a probable decrease of 10 per cent in Alabama and eastern Virginia, 20 per cent in South Carolina, 25 per cent in Florida, and 33 per cent in North Carolina. Northern sacked round white, U. S. No. 1, are \$1@1.10 per 100 pounds in the Chicago carlot market.

HORSES

Horse prices were slightly lower last week because of a heavier run, but sales of desirable farm chunks weighing 1,300 to 1,400 pounds are still being made at range of \$125@150 in Chicago. This is still \$10@15 lighter than when the season opened, but the upper limit at \$150 seems to be quite rigid. The eastern states, Michigan and Wisconsin, are buying most of the offerings. Farm chunk trade will be brisk for another month or six weeks. Buyers are standing in line for all the good drafters arriving at price up to \$250.

DETROIT CITY MARKET

Apples were in light supply and the demand was only fair. Buying was not heavy enough to clean up the offerings of greenhouse stuff, and radishes and lettuce took some price cuts. Cabbage, carrots, parsnips and other root crops were slow to move off. The demand for horseradish had a little more life. Rhubarb was in moderate supply and sold easily. Offerings of potatoes were light and found easy sale. Poultry had ready sale, while eggs moved slowly at 45@50c a dozen retail. Some small pigs were quick sellers at 18c a pound.

Prices were: Apples \$1.25@3.50 bu; beets 65@75c bu; cabbage 65@75c a bu; carrots 65@75c bu; horseradish \$3@5 bu; dry onions, No. 1, \$1.50 bu; root parsley 75c bu; parsnips \$1 bu; potatoes, No. 1, 60@65c bu; root celery \$1@1.25 bu; honey \$1.25 per 5-lb. pail; butter 50c lb; eggs, retail 45@50c dozen; hens, wholesale 29@32c; retail 30@35c; springers, retail 30@32c; ducks, wholesale 32c; hogs, small 18c; dressed poultry, hens 35@38c; springers 35@38c.

GRAND RAPIDS

Butter-fat values have advanced sharply in Grand Rapids, rising from 39@40c a pound two weeks ago—to 45@46c a pound. Eggs have declined to 28@30c a dozen, while beans have climbed to \$5.60@5.65 per cwt., and wheat has jumped to \$1.80 per bushel. Poultry is lighter supply and prices on fowls and late hatched heavy springers have risen to 25@26c a pound. Veal was easier at 13@15c a pound; pork steady at 14½@15c; prime beef 12@14c. Vegetables were mostly unchanged, although greenhouse products have eased to 12@13c pound on leaf lettuce and 60c per dozen bunches on radishes.

BEAN GROWERS HOLD ANNUAL SESSION.

THE annual meeting of Michigan Bean Growers' Association was held in Saginaw last week. President A. B. Cook, in calling the session to order, reviewed in general the items of chief interest to the bean industry at this time. There were about 110 persons present, including, besides the growers, several jobs and others interested directly and indirectly in the industry.

Emphasis was given to the matter of uniform marketing. About forty-two per cent of the average crop is marketed before the first of January. If an even flow of beans moved from the farms, it would be less difficult to stabilize the markets, so jobbers contend. Growers hold that, aside from the necessity of selling early to procure funds, the wide fluctuation of quotations is the chief cause of an uneven flow from the farms.

Robust beans had its innings. They were opposed on the grounds that they did not soak up as readily as the common beans, and when mixed did not make a uniform mess. Professor Rather, of the Crop Improvement Association, had cooked batches of both common and Robust which had been soaked an equal length of time. These were passed to the crowd for sampling. The opinion was that there was little, if any, difference between them.

Professor Rather urged growers to plant this variety from four days to a

Live Stock Market Service

Tuesday, March 3.

CHICAGO

Hogs.

Receipts 22,000. Market active, 15@25c higher. Average tops \$12.95; 170 lbs. and up \$12.50@12.90; bulk, 140 to 150-lb. average at \$12@12.25; packing sows, mostly \$11.75@12; better light weight slaughter pigs largely, \$11.50@11.75.

Cattle.

Receipts 10,000. Fed steers \$11.85; tops weak; early top yearlings at \$11; some heavy held around that figure; bulk early sales \$10@10.50; vealers 25c or more higher, largely \$11.50 to shippers; to packers \$14@15.

Sheep and Lambs.

Receipts 17,000. Market very slow; few early sales of fat lambs; weak to 25c lower; few good lambs \$17@17.50; no choice handy weights sold; feeding lambs steady; fat ewes at \$9.75@10; feeding and killing lambs \$16.75@17.25.

DETROIT

Cattle.

Receipts 282. Market steady. Good to choice yearlings dry-fed \$ 9.00@10.25
Best heavy steers, dry-fed 8.50@ 9.25
Handyweight butchers ... 7.50@ 8.50
Mixed steers and heifers 6.25@ 7.50
Handy light butchers.... 5.75@ 6.50
Light butchers 4.75@ 6.00
Best cows 5.25@ 6.00
Butcher cows 4.00@ 4.75
Cutters 3.00@ 3.50
Canners 2.25@ 3.00
Choice bulls 5.00@ 6.75
Heavy bologna bulls ... 4.50@ 5.50
Stock bulls 4.00@ 5.00
Feeders 5.25@ 7.00
Stockers 5.25@ 6.25
Milkers 45.00@70.00

Sheep and Lambs.

Receipts 1,544. Market steady.

Best lambs \$17.50@17.75
Fair to good sheep..... 7.55@ 7.75
Light to common 9.00@14.25
Yearlings 13.50@14.75
Fair to good sheep..... 8.00@ 9.00
Culls and common 4.00@ 6.50
Buck lambs 7.00@16.00

Veal Calves.

Receipts 473. Market steady.
Best \$16.00@16.50
Others 6.00@14.50

Hogs.

Receipts 1,231. Market 25c higher.
Mixed hogs, heavy y'rkr. \$11.95@12.00
Pigs 8.00@10.00
Yorkers 12.75
Little yorkers 12.25
Roughs 11.00
Stags 6.00

BUFFALO

Hogs.

Receipts 6,420. Market is closing steady. Heavy sold at \$12.40@12.50; medium \$12.10@12.25; light \$13.25@13.35; light lights \$12@13; pigs \$11.75@12; packing sows and roughs \$11.25.

Cattle.

Receipts 1,100. The market is steady, 25c higher, with steers from 1,100 lbs. up at \$7@10.10; steers 1,100 lbs. down \$6@10; load of yearlings at \$10.50; heifers \$5.50@8; cows \$2.50@6; bulls \$4@5.50; asking \$10 for loads of steers.

Sheep and Lambs.

Receipts 1,100. Tops \$18; culls \$7 down; culls at \$16.75 down; yearlings at \$14.50@15; wethers at \$11@11.50; ewes \$9.50@10.50.

Calves.

Receipts 300. Tops \$15.50@15.75; culls \$15 down.

week earlier than common beans are put in. It is a prolific bearer, and is disease resistant as compared to many other kinds, for which reasons more and more of the variety are being grown. Two hundred pounds of phosphoric acid will hasten ripening and give a better bean. Under certain conditions, says Mr. Rather, this bean will wrinkle, the same as do the common varieties. Excessive moisture appears to be largely responsible for this trouble.

The advertising program, agreed upon last summer, is suffering from the hands of certain jobbers, according to information given out at this session. Mr. Merrick, custodian of the funds raised for advertising, stated that less than \$5,000 had been paid in from sixty elevators. Outside of this small group, who complied with the plans unanimously adopted by the jobbers, nothing apparently has been done. Every farmer present at this meeting seemed favorable to subscribing his one cent per of beans offered. It was also reported that a return postal, sent to several thousand farmers in the Thumb district revealed the fact that farmers, almost to a man, stood ready to subscribe to the plan, only fifty of the whole number not being returned. All that were returned favored advertising Michigan beans.

The potential value of the bean at even current prices should make it possible to considerably increase the

annual consumption beyond the present small amount of seven pounds per capita.

Several present, including a number of jobbers, urged strongly the adoption of a resolution addressed to the bureau of economics of the department of agriculture, opposing and change "in our present universally accepted and satisfactory bean grades until such times as the need shall become apparent to those actually engaged in some phase of the industry, or as the result of suggestion or demand from the bean consuming public." The resolution was adopted, and wired to Washington where a committee of Michigan jobbers were then attending a hearing before the bureau of economics.

CALVES CALVES CALVES

SHIP TO
Otto F. Bernstein

2478 Riopelle Street, Detroit, Mich.

Largest and Oldest Exclusive Veal Merchants in City.

We give your shipments our personal attention, get you BETTER PRICES and QUICKER RETURNS as we always have an outlet for veal.

Est. 1895. Ask your Bank for References.

KINKADE GARDEN TRACTOR

and Power Lawnmower
A Practical, Proven Power Cultivator for
Gardeners, Suburbanites, Truckers,
Florists, Nurserymen, Fruit Growers.
American Farm Machine Co.
2503 Uni. Av. S.E., Minneapolis, Minn.



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.

Special Notice

All advertising copy discontinuance orders or change of copy intended for the Classified Department must reach this office ten days in advance of publication date.

One	Four	One	Four
10.....\$0.80	\$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

REAL ESTATE

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HOMESPUN TOBACCO—Chewing, 5 lbs., \$1.50; 10 \$2.50. Smoking, 5, \$1.25; 10, \$2. Mild, 10, \$1.50. Pay when received. F. Gupton, Bardwell, Ky.

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FROSTPROOF CABBAGE PLANTS. All leading varieties. Bermuda Onion, Earliana and Baltimore Tomato Plants, 500, 75¢; 1,000, \$1.25; 5,000, \$5.00. Porto Rico Potato plants: 500, \$1.50; 1,000, \$2.50. By mail or express. Charges collect. Cabbage and onion now ready, others April 1st. All well rooted, open field grown from best seeds. We guarantee satisfaction, prompt shipment, safe arrival. Descriptive list free. Reinhardt Plant Co., Ashburn, Georgia.

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"ILLINOIS ACCREDITED" pure-bred chicks. State-inspected breeding stock. Barred Rocks, Single Comb Reds, \$15-100. White Wyandottes, Buff Orpingtons, White Rocks, \$16-100. Postpaid, 100% live delivery. Hatch every Monday, order from ad. Member International and Illinois Chick Association. Earlville Hatchery, 30 Ottawa St., Earlville, Illinois.

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BABY CHICKS from America's pioneer hatchery have pleased over 25,000 customers. 22nd season. We hatch twenty popular varieties. Guaranteed safe delivery by prepaid parcel post. Write for 40-page catalog and free premium offer. Miller Hatcheries, Box 759, Lancaster, Mo.

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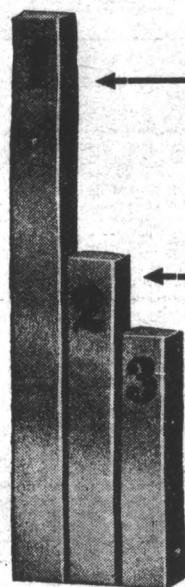
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THIS new Square Deal fence has a zinc coating two to three times heavier than ordinary galvanized wire—therefore it lasts two to three times longer. This is proven by nationally recognized authorities such as: Indiana State University, R. W. Hunt Company, Chicago, and C. F. Burgess Laboratories, Madison, Wis. (*Copy of official reports mailed free upon request.*)

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This is a photo of the actual amount of zinc removed from one square foot surface of 3 classes of wire.

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(NO EXTRA PRICE)

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