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VOLUME CLVIII NUMBER NINE

DETROIT, MARCH 4, 1922

CURRENT COMMENT

THE MICHIGAN FARMER SAYS:

Good seed is the rock foundation of a good crop.

Remember, fertile fields are not made in a day.

The 500,000 scrub sires in the United States are about a half million too many.

Another thing greatly needed is schools for developing followship as well as leadership.

The good farmer is one of the most capable, industrious and steadfast of men and the day society in general recognizes this we shall mark the beginning of another epoch.

Present vs. Pre-War Prices
ON page eight of this issue will be found a chart illustrating the recovery of prices for farm products since the low point of last year. The extent of the encouragement to be gathered from this improvement is emphasized by a comparison of present prices for farm staples with pre-war prices for the same commodities. Such a comparison is afforded by current quotations at this writing and quotations from our first March issue in 1914. The first price noted is the current quotation in this market, the second is for the even date in 1914:

Wheat, \$1.48, 98c; corn, 65@67, 63@65c; oats, 42c, 41½c; rye, \$1.05, 67c; beans, \$3.72, \$2; potatoes, \$1.30, 60@65c; butter, creamery, 34@35c, 28@30c; eggs, 27c, 27c; poultry, live, 25@30c, 17@18c; cattle, top, \$7.25, \$8; veal calves, \$13@14, \$10@11.50; lambs, \$15.25@15.50, \$7.65@7.75; hogs \$10.85, \$8.60.

Expressed in percentage this increase in prices as compared with 1914 is quite as imposing as is the chart above referred to, especially in view of the fact that some of the most notable comparisons are for products which are important factors of production on Michigan farms. For example, wheat is forty-six per cent higher than in 1914; rye, fifty-six per cent higher; beans, eighty-six per cent higher; potatoes, 100 per cent higher; poultry, thirty per cent higher; veal calves, thirty per cent higher, and lambs 100 per cent higher.

A study of these price figures in conjunction with those given on page eight should prove interesting and profitable

for every Michigan Farmer reader, since they tend to show not only the evening up of farm prices in the readjustment process, but will as well afford a basis of comparison with pre-war conditions to which we like to compare the prices of things which we have to buy.

These comparative figures are also an index of future prospects as indicated by present conditions of supply and demand, and as such should be of some value in the planning of next season's production campaign.

The Transportation Problem

THAT transportation economy is a prime factor in the determination of agricultural prosperity in America is a fact which cannot be successfully controverted. American agriculture has outstripped all competitors in its remarkable development of production per man, through the introduction of economic methods of production, and this economic evolution in our greatest single industry has facilitated an industrial development quite as remarkable and as truly American in character. And this wonderful, coordinate development of agriculture and industry has made the United States, the greatest and most prosperous country in the world in a comparatively brief period of time.

Because of the extent of our country and the wide area involved in the development of our agriculture, transportation has been, and still is, one of the greatest problems, and probably the greatest problem, in its economic development and prosperous maintenance. The opportune invention and development of steam transportation made the rapid expansion of American agriculture possible. Our broad country was quickly covered with a network of railroads by the aid of local and government subsidies through the contribution of money and land, resulting in a phenomenally rapid development of both agriculture and industry from coast to coast and from lakes to gulf and an equally phenomenal prosperity of both agriculture and industry during a long period of development and expansion.

During this period of development, expansion, and unprecedented prosperity the country was scarcely conscious of the impending seriousness of its transportation problem, which begun to loom in importance before the war, with the coming of which it at once became one of our most serious national problems and so remains at the present time. Changed economic conditions have forced rail transportation rates to a point which seriously threat-

ens agricultural prosperity over a wide area of our country with scant prospect of their early reduction to a point commensurate with the present level of prices for farm commodities. Entire dependence upon rail transportation by a great agricultural industry such as we have developed in this country is a new experiment on a gigantic scale. From present indications it is not yet beyond the experimental stage, hence the fact that the transportation problem remains as one of our great national problems.

This situation makes it most important that the proposed Lakes to Sea waterway be given the early and careful consideration which it merits as a possible partial solution of this problem. Our export trade in farm products is an important factor in agricultural prosperity. This development would bring a direct water route to foreign ports almost to the heart of the grain producing section of the country. Competent engineers have pronounced it to be a feasible scheme. The President has ordered negotiations with Canada looking toward the making of a treaty which would open the way for this needed development. Selfish eastern interests are opposing the plan in every way possible, but with agricultural interests being safeguarded in congress as never before there is every promise that the feasibility and economic importance of this development will be given the consideration which it merits when it reaches the stage for congressional action.

A Good Time to Buy

GENERAL interest in pure-bred live stock seems to manifest itself in well-defined cycles. During a period of uninterrupted prosperity this interest grows rapidly, with consequent profit to the foresighted breeders who have prepared for the demand in advance of its manifestation. There is keen competition for the possession of the good animals during this prosperous period for the breeder, and advancing prices still further stimulate general interest in registered stock. Sometimes the boom prices which obtain at the peak of the advance are beyond the average man's conception of the possible worth of any animal for breeding purposes. This has happened with most of the improved breeds and in the opinion of some has been responsible for a slackening of the demand in some cases.

Be that as it may, these high spots in the business are sooner or later followed by a lessening of interest and a falling off of general demand for pure-bred animals. This is always true during a period of business depression

such as that through which we have recently been passing, when highly-bred animals seek buyers at prices little if any above those commanded by inferior animals before the slump came. But general interest in improved live stock will improve again, just as it has done many times before, and prices will again advance just as surely as a pendulum swings back when started in motion in a given direction.

With this fact in mind the farsighted man will buy good foundation stock now, when it is available at a reasonable price. Under present conditions the result of years of careful and painstaking breeding with a definite object in view can be secured at a bargain, and with this kind of a foundation intelligently built upon future profit from the breeding of pure-bred stock is a certainty. Every farmer who is so situated that it is at all possible for him to buy a few head of foundation stock of any kind or breed in which he is specially interested should give careful consideration to present opportunities to that end. It is a good time to buy pure-bred stock of all kinds.

The Topic o' Time

SEEMIN' as I got lots of time I think I am what you kin call qualified to talk on the subject.

Now there's all kinds of time. For inst., there's like good times and the kind of times you can't talk about in churches, and then there's bedtime, which is all right when the fun is over and also time-to-get-up, which is the hardest time there is in the world, and etc.

There's also Father Time, the old man what looks like he had just come in from cuttin' grass with a scythe on a hot day. Now, Father ain't as old as he looks, 'cause every winter he gets a baby boy what's dressed about the same as babies is dressed when they say "how-de-do" to this world. He gets so many of these boys that he's got to number 'em like they number kings. The last one was New Years, 1922.



Now, the dicshunary says time is the measurement of durashun. Maybe that's all right, as, for inst., when the alarm clock crows in the mornin' it stops the durashun of your sweet repose, and when the perspective mother-in-law calls and says, "Sarie, it's half past nine and time for you to go to bed," it cuts the durashun of your spoon-time, which is mutually disappointin'.

There ain't no greater boss than the clock. It tells you when to get up, to work, eat, milk and enjoy the pleasures of the day. And if you don't follow the dictates of your timepiece you got to suffer the consequences, which sounds like a considerable sickness.

Seems like time is nothing 'cause you can't see it or feel it. You can't sell it or give it away, but you can spend it; in fact, you gotta spend time even if it is the most valuable thing there is. It's the way you spend your time what makes a lot of difference with your outcome as well as your income.

There's some folks what is awful fussy about spending' their pennies, but is most extravagant about the way they spend their time. With them time and money ain't no relatives.

Sophie says that if I didn't waste so much time writin' this dum foolishness I'd amount to somethin'. Likewise she says it's time to go to bed, so I guess I gotta bank the fire and start my nocturnal recreation.

HY SYCKLE.

Better Homes Exposition

THE Fourth Annual Builders' Exhibition will be held in Detroit, in the General Motors Building, March 18 to 25, inclusive.

Never before have such elaborate preparations been made for staging a builders' show. In the first place, it is being held in the most wonderful building of its kind in the country, if not in the world, the General Motors Building being a twenty million dollar wonder of modern architecture, embodying every advanced idea of science in buildings of its kind.

Its purposes are largely educational, and its scope of interest includes almost every walk of life. Here the farmer may see numberless things in which he is intimately interested. The farmer's wife will be delighted at the modern little accessories that she might readily adapt to her domain, things that cost little, yet work wonders toward making the farm home and its surroundings less drab.

Here will be assembled on one floor a range of products, many of which are of absorbing interest to the farmer, including plans and designs of modern homes, by Michigan's foremost

architects, details of construction that he can incorporate in his home that tend to brighten the days for his whole family. He may see and price and compare materials and implements he must use on the farm, including lumber, steel, brick, cement, stucco, flexible and flooring compositions, roofing materials, paints, oils and varnishes, interior and exterior finish, stair work, built-in cabinets, breakfast nooks, building papers, insulating and fireproofing construction, kellestone and magnesite materials.

Implements and accessories that are directly of interest to farmers, include concrete mixers, designed especially for farm use, portable saw rigs, gas engines, farm lighting systems, bath and plumbing regulators, washing machines, furniture, draperies, wall papers, window screens and weather strips, ventilating devices, everything in stoves, suction sweepers, laundry equipment, pumps, garbage containers, wall beds, garages, farm tractors, farm trucks and trailers, and dump bodies, and other things too numerous to list. Surely farmers may profit very much by attending Detroit's fourth annual builders' show.

Fruit-Growing on Upward Trend

The Indications Are That Its Possibilities are Becoming Recognized

By Roy C. Marshall, M. A. C.

IS the interest in fruit growing in Michigan on the decline or is there an increasing interest? Such a question was directed to me by an agricultural journalist who is evidently well informed regarding the history and development of the agricultural industries of the state. I hastily advised the inquirer that there was a decided increase in the interest in fruit production and that some well informed orchardists of the state had



Not Fertilized; 161 Pounds of Apples From Six Trees.

referred to this intensity of interest as an "awakening."

But what concrete evidence that will substantiate the statement that fruit production in Michigan is inviting and more interesting today than it was last year or during the past several years? What factors have been responsible for the increased interest?

Perhaps the best evidence that we have that there is an increased interest in fruit growing is the very marked increase in attendance and interest displayed in discussions at the fruit growers' local, district, and state meetings during the past year. This was especially noticeable at the annual meeting of the State Horticultural Society in Grand Rapids last December when 545 registered delegates and more than 100 other fruit growers were in attendance throughout a well filled three-day session. The older members of the society declared that they had never known such interest to be displayed at a state meeting.

Present indications are that the mid-winter meeting of the society at Coloma, Berrien county, March 1-2-3 will also be a record breaker in attendance; in fact, it has already broken one precedent in that such demands were made upon the secretary by the fruit growers for information along



Five Dollars Worth of Fertilizer and Labor on Six Trees Gave an Increase of 2,058 Pounds of Apples Over Unfertilized Plot.

such a wide variety of lines that he was forced to lengthen the session from the established two-day meeting to one of three full days.

Fruit men have heard of neighboring fruit growers who have contributed liberally to Uncle Sam's treasury via the income tax and the former have naturally been interested in learning what practices the latter used to swell their profits above those of the average fruit grower. For instance, one fifty-four-acre orchard in Oceana county yielded more than 6,000 barrels of strictly first-class apples this past sea-

son. All but a negligible amount of this fruit was packed, and rightfully packed, as first-grade. Naturally, other fruit growers in that and in many other sections of the state believe that their own orchards should approach such yields if properly managed and these growers are therefore anxious to learn how they can better their own orchard practices.

During the past two years fruit growers have learned that their profits can be very materially increased by the use of commercial fertilizer. Prob-

(Continued on page 271).

Swapping Alfalfa Experiences

Michigan's Barn-storming Alfalfa Campaign Brings to Light Many Interesting Farm Experiences.—By Howard C. Rather

HOW many of you fellows are growing alfalfa? I asked a crowd of forty farmers gathered together in Mr. Ray's barn near Kendall. Only two held up their hands. "Say, why don't you ask us how many want to grow it?" someone asked. I did and the vote was unanimous.

That pretty well illustrates conditions as we have found them all over Michigan. Farmers are thoroughly convinced of the merits of alfalfa as a yielder, as a soil builder and as a feed. What they want is to know how to grow it. Its value has been brought forcibly to their mind time after time. Especially was this true during last summer's prolonged drought. Fields of alfalfa and sweet clover stood out like oases in the desert because the deep-feeding roots of these crops enabled them to secure moisture even in the driest period of the summer.

A survey of over fifty farms made by County Agent Gregg in Wayne county showed an average yield of 2.36 tons of alfalfa per acre, while other hay crops produced but 1.15 tons. The state, as a whole, bears out Mr. Gregg's investigations with alfalfa yielding an average of 2.3 tons per acre against 1.2 tons, the average for all hay crops.

What Do They Do With It?

From these figures it is safe to assume that the average acre value of alfalfa is nearly four times as great as that of mixed hay or timothy because of its greater worth as a live stock feed. Its value to the dairy cow, the beef animal, the sheep, and the hog, has long been unquestioned. Now a great many farmers are reporting success by feeding it to their horses as a steady diet, even during the working season and without grain.

The experiences of one Allegan coun-

ty farmer who grew more than five tons of hay per acre and sold it at \$18 and \$20 a ton illustrates possibilities in alfalfa as a cash crop which might well be used to partially replace certain others which have become unprofitable. The farmers who are starting in alfalfa or increasing their acreage today believe when prices for

other crops return to a more profitable plane, that they are going to realize better on those prices. They will do it, by more efficient production as a result of growing alfalfa. Compared to the present commercial fertilizer market alfalfa hay is worth \$12 a ton to plow under, so as one farmer put it, "even though alfalfa were not as valu-

able on the market or as a feed as it is today, I could still afford to increase my acreage because of its benefit to the soil."

Farmers in some of the older sections are finding it absolutely necessary to turn to alfalfa and other leguminous crops if they are to continue in business. "The problem of agriculture in southwestern Michigan," says Mr. Jason Woodman, "is not to make two blades of grass grow where one grew before, but it is to make one blade of grass grow where two grew before and there isn't any growing now." This region, once fertile and productive, is becoming barren and worn out. Alfalfa must be grown if farming is to be continued."

The Rush is On.

So all over the state we find farmers turning to alfalfa, some with confidence coming from previous successes and some with diffidence because of failures, all convinced of its value, and all eager to make use of the experiences of their neighbors near and distant to help them to success.

Emphasis in the campaign work has been placed on securing a successful stand. While it is recognized that there are a great many important considerations in handling alfalfa, the first step is to grow it. Thoughtful care, work, study and experience, will find out the most effective means of caring for the crop afterwards.

These barn gatherings have become less of the lecture type of meeting and more of the general discussion. Everyone has been free to contribute his alfalfa experience and these combined experiences after all mark out the road to successful practice. Many of these experiences have been striking illustrations of the need for looking after some particular factor be-

Up Against It



This is Quack-grass. While it Makes Good Pasture and Hay, Farmers Generally Would Vote it the Most Obnoxious of Weeds.



Do you ever see a came

YOU do, if you ever look at a beautiful church window—for its pieces of stained glass are held together by little strips of lead called came.

Just so you see lead, or some product into which lead enters, a dozen times a day, and you do not know it.

Get up in the morning, and look out of your window to see what sort of day it is. Putty holds the panes—and there's lead in good putty. Sash-weights are often made of lead. There's lead in the paint on the window frames.

☞ ☞ ☞

Your bath—with water coming through lead pipes into a tub whose porcelain surface contains lead. Is there a rubber stopper in your tub? There's lead in that stopper, and in the glazed tile walls, too.

Breakfast—and coffee out of a cup whose surface contains lead. When you travel on electric street-cars, you get where you're going because there's lead for the bearing metals, which prevent destructive friction in the running of powerhouse machinery, and of the cars themselves.

If you jump into your own car, you start it by means of a storage battery made with lead, and you ride on tires that contain lead. The tubes of your radiator are held together with a lead-and-tin solder.

You wear rubber boots sometimes. Rubber contains lead.

☞ ☞ ☞

Of all the ways in which civilization makes use of lead and its products, the most important is the use of white-lead as the principal factor in good paint.

Thousands of tons of pure metallic lead are corroded into white-lead every month, all over the civilized world, to make the paint that decorates and preserves buildings and manufactured articles. A painted surface is a protected surface—and when you "save the surface" you "save all."

Some paint manufacturers use more white-lead, some less, in the paint they make. Most painters use the white-lead straight, thinning with pure linseed oil. The quality of the paint depends on the quantity of the white-lead it contains. White-lead furnishes the durability and the working qualities.

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| Dutch Boy Babbitt Metals | Impression Lead |
| Dutch Boy Solders | Lead Plumbing Materials |
| Needle Metal | Lead Gaskets |

fore alfalfa growing could be successful.

We were considering the importance of a firm and well-packed seed-bed at a meeting near Paw Paw. Charles Morrison, a successful grower in that community, told how one field of his, after a thorough working with the cultipacker, came on in fine shape. "But in my other field," he said, "I only got over the ground once. Where the horses had tramped and where the wheels of the drill had packed the ground the alfalfa came on quickly, otherwise the field had a hard time of it."

This same point was talked of at a meeting in Wayne county. "I had that experience," said one farmer. "I had just finished sowing a piece of alfalfa. That evening an ornery old horse of mine broke into the alfalfa field and mused around in general. Finally he rolled. Where he rolled was the only place in the field that I had any alfalfa."

A very keen interest is being exhibited in lime. It is seldom that one finds a Michigan farmer who really has had alfalfa success without applying it. Where reports of such success are heard they come from farmers who have a gravelly limestone soil or a fertile soil of heavy texture where leaching is slow and where there is plenty of lime in the soil without additional application. Two tons of finely ground limestone per acre, or three to five wagonloads of marl are the most common applications. These are worked into the seed-bed before seeding time or occasionally they are applied to a previous crop.

Doubters Becoming Extinct.

Inoculation is no longer a debated question. Occasionally there is a person who fails to recognize its importance but the value of this practice has been demonstrated so often that the doubters are hard to find. A Jackson county farmer received a bottle of the pure culture from M. A. C. and was asked to leave an uninoculated strip across his field as a demonstration. "Never again," he told his county agent, "this demonstrational stuff can be left to the college hereafter so far as I'm concerned. I've lost a good many dollars worth of hay by not having that strip inoculated. I guess we have seen enough in this neighborhood to convince us."

Grimm, we Take it, is Like a Cat.

The importance of quality seed in Michigan alfalfa production is recognized more than it is in the production of most any other crop. Too often have farmers had all their efforts, their land investment, and their money wasted because winter-killing left but a few scattered plants. Their seed was southern-grown or lacked those hardy characteristics which enable certain strains to withstand very severe winter conditions. Now that they can secure genuine Grimm from northern growers, and be assured that it is genuine Grimm, they are quite willing to make the extra expenditure necessary to insure the life of the crop when winter comes. Farmers are realizing the importance of this kind of seed more than the co-op managers who aid in its distribution and these latter will find they are rendering a distinctly appreciated service if they do all they can to make more of the hardy seed readily available.

First experiences with Grimm are interesting. Several farmers, upon first observing the habit which this variety has of going into an earlier dormant stage than the common, thought the Grimm was all dying out and berated everyone that had ever mentioned Grimm seed. One man immediately cancelled an order for Grimm that he had placed with the farm bureau. The next spring he found less than twenty-five per cent of a stand in the common strip while the Grimm stand was nearly perfect. "At

present prices," a farmer said, "one-tenth of a ton of additional alfalfa per acre will more than pay for that extra cost of Grimm seed." In some places by seeding the Grimm at ten pounds per acre and the Common at fifteen, the Grimm actually is the cheaper per acre of the two.

Mr. Charles VanAken, of Hillsdale, an alfalfa grower of twenty years' experience who now has fifty acres of the crop on his farm gave this experience with Grimm and Common. An eleven-acre field had been seeded five acres to genuine Grimm, six acres to Common. It all did very nicely until one winter the field was covered with an ice sheet. "In the spring," as Mr. VanAken put it, "the Grimm came through smilingly but the Common was so completely killed out that it had to be plowed up."

"It's not all winter-killing that leaves (Continued on page 256).

SERVICE

WHO OWNS THE FURNITURE?

My wife ordered me out of her folks' house and she claims that she can hold all of the furniture. Have I any share in that myself? I am not divorced yet. Have not been living together since September, 1921. My furniture cost about \$150.—G. R.

Marriage does not pass title to the furniture from wife to husband or husband to wife. The buyer owns it.—J. R. R.

TAX SALES.

If I fail to pay my taxes to the township, how long does the county hold them before they are sold as tax title?—H. R. M.

Three years.—J. R. R.

RIGHTS OF LAND OWNER.

A sold twenty acres of standing timber to B, receiving therefore \$2,600 cash, giving B three years to take it off. B took some of the logs off last winter and some this winter, and sold the tops and small timber to neighbors, giving them two years' time to take it off. Now A says that after the first of March everybody has to stay off his land and all the wood that has not been taken off by that time will have to be left. Can A do that?—A. F.

What is not taken off during the contract period belongs to the land owner.—J. R. R.

TELEPHONES.

A has a telephone and moves off the farm and B moves on. Has the telephone company the right to charge \$1.50 to leave the telephone in if B pays the dues?—I. C. E.

No right to service from a telephone company is acquired by purchasing or renting a house in which the company has an instrument.—J. R. R.

SWEET CLOVER FOR PASTURE.

What do you know about sowing sweet clover seed on a June grass sod in February for pasture? Would I get any feed the coming summer? What is best to sow, hulled scarified seed or unhulled seed?—O. P.

Sweet clover makes an excellent pasture for all classes of live stock. It may be seeded on a June grass sod in early spring with fair results, provided the soil is not acid. Sweet clover is very sensitive to soil acidity and usually an application of two tons of ground limestone, or from three to five cubic yards of marl, is of considerable benefit to the seeding.

You would not be likely to secure very much pasture the first season, their growth the second season. For Sweet clover plants make most of late fall and winter seedings unscarified seed is best. From eighteen to twenty pounds of seed should be sown per acre.—C. R. M.

Francisco Farm Notes

By P. P. Pope

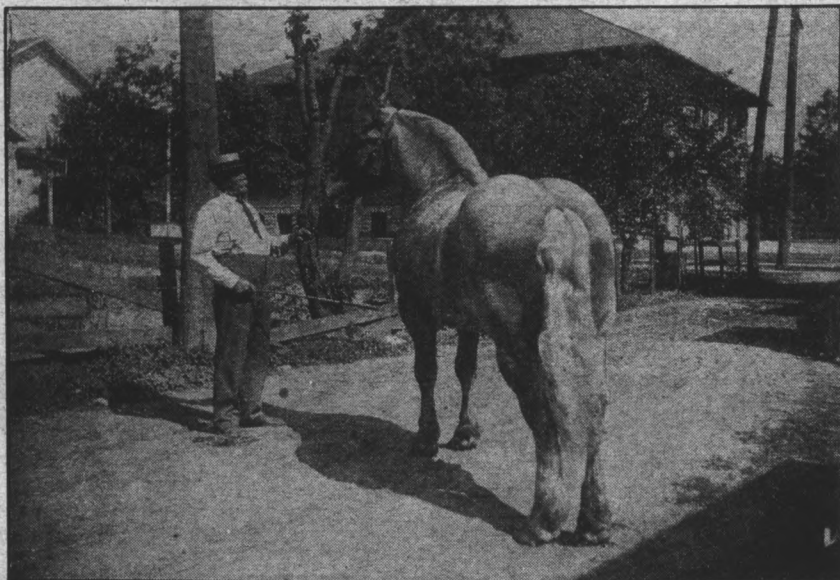
I HAVE just discovered that about the time this letter reaches the reader, I am supposed to be giving an illustrated talk on the horse to the boys and girls at the Mt. Pleasant Normal School. A round-up of Boys' and Girls' Clubs is one of the leading features of the Annual Farmers' Week at Central State Normal. Now, it is true that habit is a powerful force in directing the actions of our everyday lives and while you grown-ups who have your ways of doing things well established, may agree with me in whatever I may happen to recommend,



the most of you will keep on doing things in much the same way you are used to. With the boys and girls it is different. Their habits are in the making. Their ideals are being formed; their minds are alert to grasp and retain what they see and hear, and when the proper time comes they put it into practice. I cannot help but feel a greater responsibility when dealing with the young folks, for a "bum steer" at this age is little short of a crime. So I am going to warm up on you folks by discussing for a moment on

Dependable Horse Power.

Those who know me best are no doubt aware of my interest in mechan-



Pure-bred Belgian Stallion of Mr. Hannah, Mr. Pope's Father-in-law.

ical power for the farm. And while it is true that I do enjoy a high power motor when I go to the fields to do heavy work, yet it is equally true that I place an abundance of faith in the horse of heavy draft. I do not expect to see the day when the dependable draft horse will cease to be an economic essential on the general Michigan farm. And when I say "dependable," I mean just that. I have little use for a vicious, balky, crippled or "heavy" horse. A tractor with faulty ignition could not be much harder on the vocabulary.

Many years ago we used to keep and raise a class of farm chunks, very desirable, general purpose horses of around 1,200 pounds weight, and a variety of breeding. They used to get the work done, too, but it was next to impossible to dispose of the surplus. They were finally cleaned up, however, at public sale and at sacrifice prices, and we determined there and then that in the future only horses of quality should find stall room on our farm. The result is that our horses are always in demand and at prices that usu-

ally represent satisfaction. We aim to have some colts coming on all the time and every year sees the sale of one or more pairs at \$400 to \$500. At present our horses are all either pure-bred or high-grade Belgian. They have size, weight and quality.

The Tandem Hitch.

The satisfaction of the tandem hitch for the gang-plow cannot well be appreciated until it is tried out. But I know of no one who has ever tried it out and later gone back to the four abreast plan. Especially is this true if their method of hitching has been one that kept the draft divided equally at all times.

The hitch we like so well is similar to the much-lauded multiple hitch worked out by the engineering department of the Illinois College of Agriculture and the Percheron Society of America. There has since been a patent of some sort on the thing and for a time at least they were being manufactured and sold to the public. Ours was built some time ago at a cost of around three dollars in addition to the supplies on hand. Two dollars of this was for an all steel pulley which the blacksmith fitted rigidly to the plow clevis in a vertical position. Through this pulley we passed a short piece of decking chain (about four feet) with an open link in the end on the upper side of pulley and the other end attached to an iron rod about the length of the tongue. The rod is suspended from the end of the tongue by a short

piece of chain and to the forward end of the rod, is attached the whiffletrees of the lead team. The whiffletrees of the rear team are attached to the link in the chain on the upper side of the pulley. The play of the chain through the pulley allows considerable freedom of movement on the part of the horses and at the same time keeps the load equalized. It helps to hold the draft low on the lead team if a weight of thirty or forty pounds is attached to their evener. The advantages of this hitch for the plow over the four-abreast type, are self-evident, but they need to be experienced to be appreciated. The heretofore ever-present side draft of the gang-plow is entirely overcome. The horses have plenty of room to work in comfort, they are not crowded and compelled to suffer from the bodily heat of one another—this is especially noticeable on a hot day—they do not need to work fan-shaped but have a straightaway pull, and the driver has a much better view of his work. It is best to give the lead to the horses which are most prompt, they will very quickly learn their places.

SMASH! GO MY PRICES



on
Fencing
Gates
Steel Posts
Roofing
Paints

Write For
Jim Brown's
Cut-Price Catalog (15)

FREE
BROWN'S
CUT-PRICE
CATALOG

SAVE Money Now!

My big, new Cut-Price Catalog shows you how to SAVE BIG MONEY on Fencing, Gates, Steel Posts, Roofing and Paints. I have already made more than 600,000 friends among farmers because they saved money buying DIRECT FROM MY FACTORIES. I will save you more money this year than ever. I've slashed prices to the bone. I'm doing a big business right now while others are wondering how I do it. But my prices do it for me—my prices and my HIGH QUALITY goods, backed by my guarantee and fair-deal business methods.

My Cut Prices Will Amaze You

Look in my new big Catalog and see how I have slashed prices. Over 125 styles of fencing, gates and posts. Nearly a dozen styles of roofing, for every purpose. The highest quality paint for house, barn and roof. Get my book and see my complete line. Then compare my prices with others. I know you'll buy when you figure your savings. And remember—

I'll Pay All The Freight

The prices you see in my big Cut-Price Catalog are all you pay. I pay every cent of the freight. This gives you the most amazing values you can find anywhere. 600,000 farmers can tell you that my Double-Galvanized, Rust-Resisting, Open Heart Steel Fence lasts longer, and saves money. My Gates and Posts are cheaper than wood and last a lifetime. My Paints are made of pure Linseed Oil and White Lead. My Roofing is asphalt—not tar.

WRITE ME NOW Don't wait another day. Why pay high retail prices when you can buy DIRECT FROM FACTORY at wholesale. FIND OUT FOR YOURSELF. Send me your name on a postcard, or fill in the coupon, and I'll send you my big, free Cut-Price Catalog, and a free sample of my fence wire to test. Let me prove how much money I can save you.

Jim Brown, Pres.
THE BROWN FENCE & WIRE CO.
Dept. 493 Cleveland, Ohio

Jim Brown, Pres., THE BROWN FENCE & WIRE CO.
Dept. 493 Cleveland, Ohio

Dear Jim: Send me your new Cut-Price Catalog. I want to see how much lower your prices are on Fence, Gates, Steel Posts, Roofing and Paints.

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SAVED \$60
"I saved about \$60 on my wire according to prices here."
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SAVED \$58.43
You saved me 10 3/4 cents per rod on woven Hog Fence, and 76 cents per spool on Barb Wire making \$58.43 in all.
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\$3.50 Vacuum Washer \$1.50

THIS AD. WORTH \$2.00 IF SENT IMMEDIATELY.

No more Boiling. No More Rubbing. Throw Away Your Washboard. Get a Duplex Vacuum Washer. This Is What You Have Been Waiting For.

FOR \$1.50 YOU WILL GET A WASHER THAT:

- Will Wash a tubful of anything washable in 3 minutes.
- Has been awarded prizes over \$50 machines in competition.

This is the Valve that Does the work

The Ball is the Secret of its Success

- Will wash the heaviest blankets in three minutes.
- Will save you many dollars a year by not wearing out your clothes.
- Is the best and strongest made.
- Is the easiest machine to work.
- Is capable of washing anything from lace to carpets.
- Can be operated by a child of ten.
- Will save you many hours of needless toil and will last you a lifetime.
- Can be used equally well in boiler or wash-tub.
- Can be dried with a cloth in ten seconds. (Nothing to take apart, nothing to lose.)
- Will do all we claim for it or we will return every cent of your money.
- Send this ad. and only \$1.50 cash today before the price goes up and we will send you the \$3.50 Duplex Vacuum Washer by parcel post to any address. Agents wanted.

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Please Mention The Michigan Farmer When Writing to Advertisers

Farm Prices Stage Comeback

Some Comparisons With Last Year's Low Prices

THE farmer again has a place in the sun. When most farm prices remained in the dumps in December and the mystical index numbers came out showing that average prices on farm products during that month had lost all of the slight gains made since last June, the landscape became black and it looked like a mighty hard winter.

Early in January farm prices began to take an upward trend. Some of them have already reached an altitude which seemed impossible three months ago. Evidently the turn of the year has meant the turn of the tide of deflation so far as agriculture is concerned.

The advance of nearly fifty per cent in the hog market has done most to increase the income of the farmer, revive hope, help pay the taxes and the interest on the mortgage and, occasionally leave a little for the improvement fund. The time-honored "nice day" as a morning greeting among farmers can now be replaced by "ten-dollar hogs."

Even the most rash of the optimists have been outdone by the actual performance of the hog market which has risen from a Chicago average of \$6.60 early in December to \$9.85. There was

nothing on which to base prediction of such an upturn three months ago, once again demonstrating that fact is stranger than fiction.

on its feet. With the sheep population on January 1 the smallest reported by the department of agriculture since 1878, there is but little danger of greatly overdoing production for a number of years.

Wool has ceased to be a drug on the market, and buyers are on the anxious seat with prices showing advances of fifty to seventy-five per cent and in some cases more.

The stage is set for an advance in the cattle market and unless something goes wrong, the curtain will go up soon. Nothing spectacular to correspond with the advances in hogs and lambs is on the program, but a healthy advance that will warm up the cockles of the cattleman's heart.

The latest revision of estimates upon the world's supply of and demand for wheat practically show a balance between the two which puts a tremendous lever in the hands of any small group of holders. Not over fifteen or twenty per cent of the wheat crop is still on the farm, but this fraction has appreciated almost thirty cents a bushel in value since January 1, and further advances are logical.

Corn is nearly ten cents a bushel higher than when the outlook was at its worst. The strength in wheat has helped corn, but realization has evidently set in that corn has been selling below its intrinsic worth and buyers have surrounded the bargain counter, heaped high with the phenomenal receipts of the last month. That such huge quantities were absorbed on an advancing market reveals the profound change that has occurred. Rye has followed wheat, rather laggardly at times, nevertheless it has followed, while oats have fallen behind the other grains.

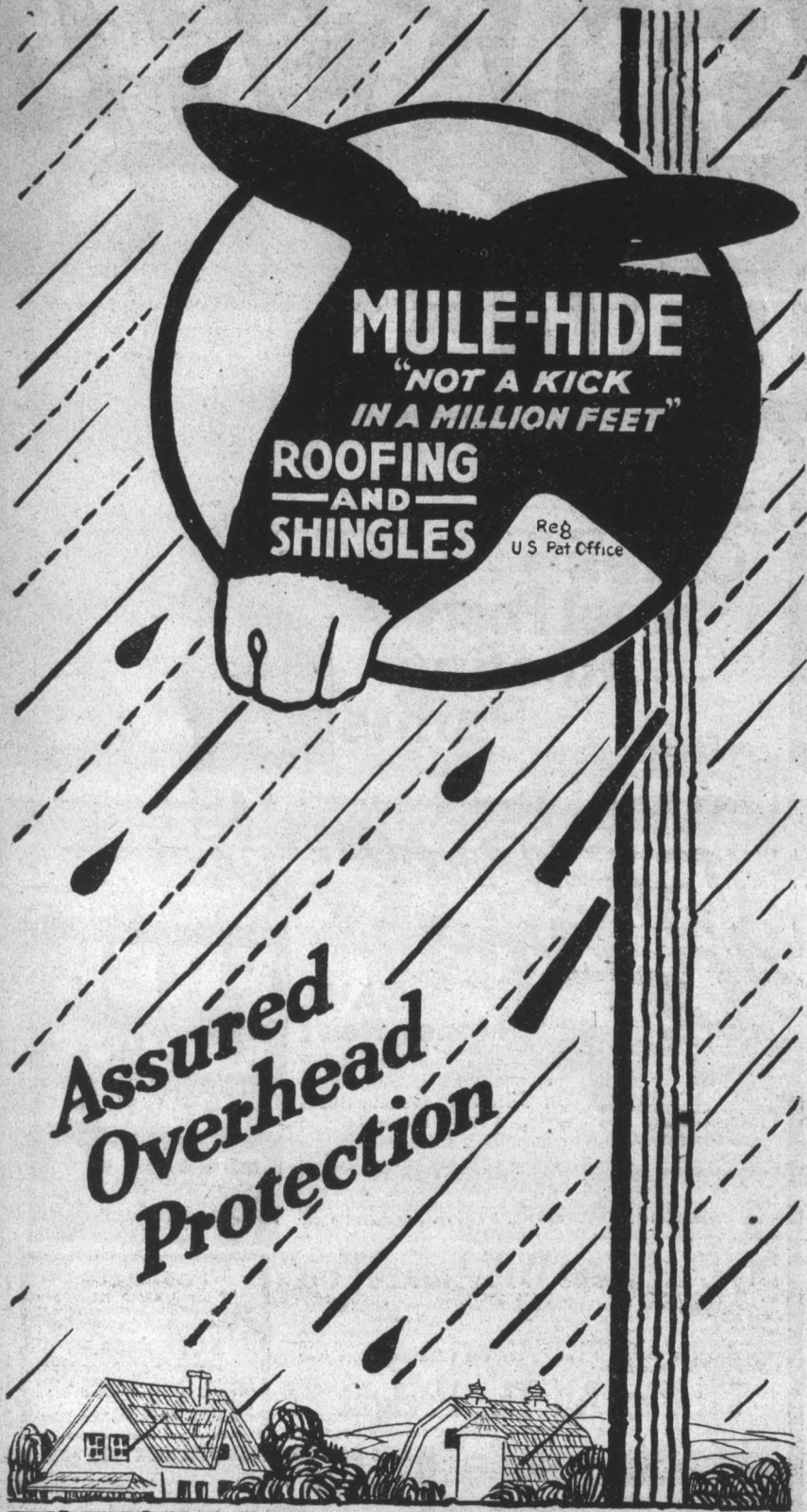
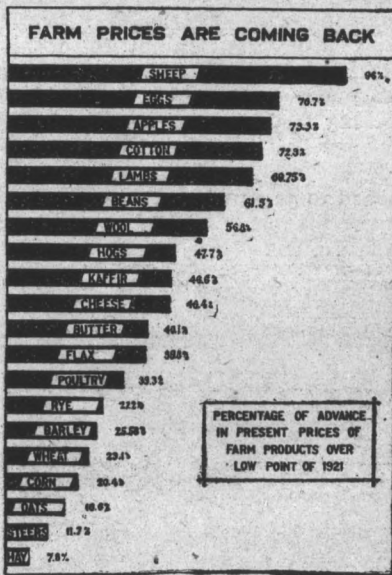
Eggs and butter have not done so well as they have declined sharply from the early December level, but they are on a much higher level than last spring. With the trend of prices on other products slanting upward it is possible that the products of the cow and the hen will not dip below a profitable level very long this coming spring, even though production has been stimulated. Furthermore, cheese and chicken prices are holding up well.

Cotton prices are about seventy per cent up from the bottom. They have lost about \$25 a bale of the advance attained late last summer, but as a partial effect to this decline, growers have a million and a half more bales to sell than were expected at that time.

The accompanying chart shows a score of farm products which were higher on February 10 than when the market was at the bottom in 1921 as well as the percentage of advance. Two others had advanced entirely too far to show satisfactorily. Onions are 625 per cent higher than the cheapest prices reported last spring, and potatoes are 140 per cent higher. Clover seed, timothy seed, cottonseed, broom corn and some grades of tobacco are selling substantially above their low points.

These advances are by no means sufficient to pull all of the farmers out of the mire. Financial distress was too severe for that, but the wheels are beginning to move forward and the farmer has been given heart to make the pull.

Solomon Chase thinks he is always going to be the friend of the plow horse because that's what most of us have to be. He believes if all the horses were out racing there wouldn't be much left to pull the autos out of the mud and cultivate the corn in-between times.



MULE-HIDE
"NOT A KICK
IN A MILLION FEET"

**ROOFING
—AND—
SHINGLES**

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**Assured
Overhead
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"Not a Kick in a Million Feet"

NO worry. No warping. No curling.—Just comfort, permanence, sightliness and freedom from repair,—that's good old MULE-HIDE.

The discriminating dealer in your town has it.

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I am interested in Roll Shingle Asphalt Roofing. Please send me descriptive literature, samples and name of dealer in my locality.

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

MULE HIDE
Shingles and Roll Roofing



BUMPER POTATO CROPS IN EMMET COUNTY.

SOME very good crops of potatoes grew in the northern part of the state this year. J. C. Schmalzried, of Levering, Emmet county, tells us that his five-acre field produced an average of 346 bushels per acre of certified seed this past season. His brother on an adjoining farm dug 2,600 bushels from eight acres.

Mr. Schmalzried planted his potatoes on wheat stubble where eight loads of barnyard manure had been applied to each acre. The potatoes were planted about June 12.

A test to ascertain the value of spraying with Bordeaux was run on one of the fields this past season and the results were pronounced. On the sprayed rows the average yield was fourteen bushels and on the corresponding unsprayed rows the yield was eleven bushels. The potatoes in the sprayed lot were treated five times—the first time with arsenate and thereafter with Bordeaux alone.

CHANGES FROM HORSES TO TRACTOR—TENANT PROBLEM.

A LANDLORD writes us that he had arranged with his tenant to feed the working teams from the undivided supplies of grain and hay grown upon the farm. With the cut in tractor prices his tenant now desires to secure a tractor to displace some of the horses and wants to know if the landlord will stand half of the expense for oil and gas for the tractor. While it is impossible to arrive at exact figures in comparing the two methods of performing farm work due to the many variable conditions which are to be met and which influence the cost, we believe that the plan is as equitable as any that could be arrived at.

FARMERS REQUEST GRIMM SEED.

MICHIGAN farmers seem to be sold on Grimm alfalfa. From every section of the state come numerous orders for this variety of alfalfa seed. Experience has shown its hardiness and this qualifies the plant for favor among the farmers of a state where extreme weather conditions are apt to be met with any winter.

An indication of the popularity of the variety is shown by an order recently placed by Macomb county for four hundred thousand pounds of the seed for immediate shipment. This is more seed than was sown a year ago in the whole eastern half of the state and more than was used in the entire state four years ago, according to Professor Cox, of the Michigan Agricultural College.

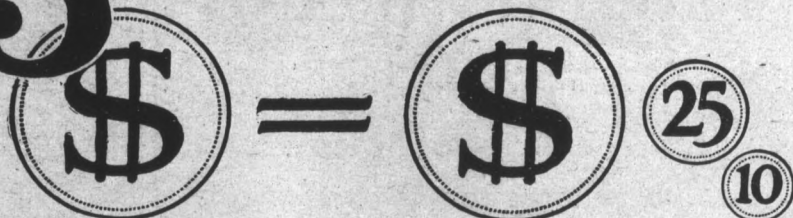
CLOVERLAND RAISING REINDEERS.

ARBO MYOKKYNEN, of Pelkie, is reported to have been appointed by the State Department of Conservation to have charge of the reindeer herd which is being brought here from Europe as an experiment in game propagation. He is said to have gained his experience with reindeer in Finland. A representative of the Department of Conservation, whom I recently questioned in regard to the ability of the reindeer to live in this section without reindeer moss, assured me that the deer which are being imported come from stock that can survive on such forage as this district provides.—C.

NON-HEADACHE DU PONT NON-FREEZING

DUMORITE

1/3 more



Your dynamite dollar — is now worth \$1.35

YOU can buy 135 to 140 1 1/4" x 8" sticks of Dumorite at the same price as 100 1 1/4" x 8" sticks of 40% dynamite.

Dumorite, the new Du Pont Farm Dynamite, has the strength of 40% dynamite and the slow heaving effect of "20%", making it a better farm explosive, stick for stick, than either of these dynamites.

You won't get a "dynamite headache" from using Dumorite and it will not freeze.

Think—in 1922, with Dumorite, you can clear over 1/3 more acres of stump land at the same cost you paid last year for dynamite, or you can clear the same amount as in 1921 at a saving of approximately one-fourth.

Let Dumorite help you make 1922 the biggest land clearing year of all. See your local hardware or general store merchant—and mail this coupon now.

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Send to nearest office for free copy of the 104-page Farmers' Handbook of Explosives—a complete manual covering every use of explosives on the farm.



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Please send me free copy of 104-page Farmers' Handbook of Explosives.

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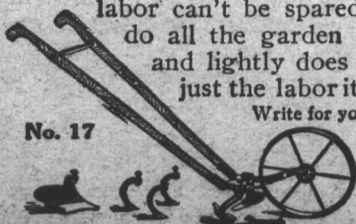
Ask your County Agent how the Federal Farm Loan System will help you clear your land.

Planet Jr.

Keep the kitchen garden growing

When plowing, planting and early harvesting are pressing, a Planet Jr. No. 17 Single Wheel Hoe is a life-saver for the kitchen garden. Half-an-hour a day with this light, strong, quick-working hoe and cultivator keeps your vegetable patch flourishing and free of weeds. When man-labor can't be spared, a woman or boy can easily do all the garden work with a No. 17, so easily and lightly does it run. Soon pays for itself in just the labor it saves.

No. 17



Write for your copy of the Planet Jr. catalog, showing more than 55 Planet Jr. seeders, wheel hoes, one-horse and riding cultivators, etc.

S. L. ALLEN & CO., Inc.
Dept. 58
5th & Glenwood Avenue PHILA.

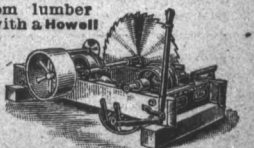
What 15c Will Bring You

From the Nation's Capital
Only 15 cents gives you the Pathfinder 13 weeks on trial. The Pathfinder is a cheerful illustrated weekly, published at the Nation's center for people everywhere; an independent home paper that tells the story of the world's news in an interesting, understandable way. This splendid National weekly costs but \$1 a year. The Pathfinder is the Ford of the publishing world. Splendid serial and short stories and miscellany. Question Box answers your questions and is a mine of information. Send 15 cents and we will send the Pathfinder on probation 13 weeks. The 15c does not pay us, but we're glad to invest in new friends. The Pathfinder, 790 Langdon Sta., Washington, D. C.

We Pay \$7 a Day

taking orders for Inayde Tyres—inner armor for automobiles up-to-date Saw Mill. Keep your engine earning money all the year. Now is the time to saw your standing timber and turn it into money. Big demand for lumber, lath and shingles. Write for Free Catalog B and Prices. R. R. HOWELL & CO., Mfgs., Minneapolis, Minn.
AMERICAN ACCESSORIES CO. 8-1759 CINCINNATI, OHIO

Big Profit In custom lumber sawing with a Howell
up-to-date Saw Mill. Keep your engine earning money all the year. Now is the time to saw your standing timber and turn it into money. Big demand for lumber, lath and shingles. Write for Free Catalog B and Prices. R. R. HOWELL & CO., Mfgs., Minneapolis, Minn.
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Strong germination and heavy crops

Good seeds show their merit soon after planting.

DICKINSON PINE TREE BRAND SEEDS

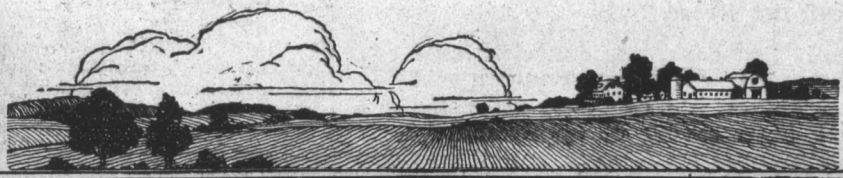


are clean seed and possess ample vigor to nourish a strong, healthy stand. No fertilizer will supply this strength; it must be in the seed.

ASK YOUR DEALER FOR PINE TREE BRAND

THE ALBERT DICKINSON COMPANY

Chicago Minneapolis
Buffalo Binghamton Hoboken Pittsburgh



A PERFECT SEED BED WILL DOUBLE YOUR PROFITS



WESTERN PULVERIZER PACKER AND MULCHER

Nothing is so important as a perfect seed bed. It means perfect stands, less seed, larger crops. The WESTERN has proven this to thousands. In one operation it pulverizes and firms the soil as deep as plowed and leaves a loose granular mulch on top to protect the moisture. Get 5 to 10 bushels per acre more by breaking the crust on winter wheat in the spring. The WESTERN has no equal for this work or for covering clover or grass seed.

PRICES REDUCED BELOW NORMAL
Our low price direct will surprise you. Our free catalog shows the work, explains construction and why it produces better crops than other rollers. Contains letters from farmers using it. Worth its weight in gold. Write today for this book and price freight paid.

WESTERN LAND ROLLER CO. Box 13 Hastings, Nebr.

FREE Drain and Terrace Without Cost

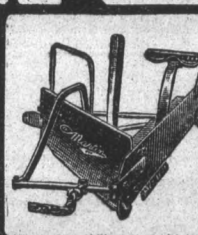


I'll Show You How This year I'm going to give away, absolutely without cost 25 of my record-breaking Martin machines. I'm doing this to bring about better farming conditions and lower crop cost. Find out. Write me.

Prices Cut to the Bone



Greatest money maker on the farm. Cuts a V-shaped open-drain, irrigation or tile ditch down to 4 feet. Cleans old ditches. Builds farm terraces, dikes, levees and grades roads. Works in any soil—wet or dry. For horses or tractors. Don't miss this liberal offer. Every man has a chance to get his MARTIN free. Merit wins. Write for the story. Prices slashed.



Owensboro Ditcher & Grader Co.
Box 415
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Nevis' "Success With Small Fruits"

Do you know you can obtain more health, pleasure and profit from a garden of strawberries than from any equal amount of land of your place? My beautiful new Catalogue greets you with a smile, and tells you something about ourselves and our favorable location where soil and climate combine to produce plants of superior quality.

WHAT IT TELLS:

It tells: How to select varieties best adapted to your soil and needs. How to prepare the soil for planting. When to plant. The different systems of small fruit growing. How to plant. How to care for the patch. How to pick and market the fruit so as to obtain the highest prices. How to renew the patch. It is a Fruit Grower's Guide and whether you buy your plants from us or not you will need this helpful book—Nevis' "Success with Small Fruits." Send for your copy to-day. A postal will bring it.

NEVIS NURSERIES

Nurseries: Ovid and Perry, Mich.
Mail Address: A Box 33 Perry, Mich.

For Sale Strawberry Plants

Early Varieties: Helem Dam's, Charles First, Medina; Dunlap, Pocomoke, Haviland. Late varieties: Late Champion. Any of these per 1000 \$5.00; per 100 75c. Everbearing: Progressive, the best Everbearing Strawberry, \$10 per 1000; \$1.50 per 100. All orders F. O. B. Lawton. ED. PHILLIPS, Lawton, Mich.

Wanted Owners of moist rich land to help us grow Strawberry Plants. Make 150% up. C. H. SUMNER, Bitely, Mich.

When writing to advertisers please mention the Michigan Farmer.

KEITH BROS. NURSERY
Newland Plants Pay Big Profits
\$500 to \$700 per Acre, with plenty of fresh strawberries for the home table.
Easy to raise. One planting insures three good crops. Keith's plants grown on fresh, new soil, the best mother earth can produce. Strong, healthy, vigorous, deep rooted, full of life. Guaranteed to satisfy or your money back. Our Keith's Ways to Successful Berry Culture free to customers. Tells how to grow strawberries for big profits. Write for free catalog today and receive it tomorrow.
KEITH BROS. NURSERY
Box 702 Sawyer, Mich.

NEWFOUNDLAND DOGS
Good watch dogs and companions. Thompson strain Barred Rocks, Buff Orpington chickens. Buff Ducks, eggs in season. Send stamp.
L. E. BIRKY, Pompeii, Mich.

THE SOLDIERS' BONUS AND SALES TAX.

SENATOR ARTHUR CAPPER was not speaking for the agricultural bloc, but he undoubtedly voiced the sentiments of the members of the bloc when he said: "I have been against a sales tax all along, and still am, either for a bonus or any other measure."

Commenting upon the bonus sales tax proposition, Senator Capper said he thought the ex-service men were entitled to a bonus. Congress was good to other people. The soldiers who did the fighting did not get much from the government. While these boys were in France, drawing 30 per month, and making sacrifices for their country, the people who remained at home were making more money than at any other period in their lives. The soldiers are entitled to an adjusted compensation. It means a tax burden, but the soldiers have first consideration. The railroads and war contractors have been well cared for.

PROTECTION FOR FARM PRODUCTS.

THE farm bloc will insist on sufficient protection on agricultural products to give our wheat preference over Canadian wheat, our sugar preference over Cuban sugar, Iowa corn preference over Argentine corn, our cattle preference over Brazilian cattle, and our lambs preference over Australian lambs, says Representative J. L. Dickinson.

In connection with this it may be timely to mention that reports are coming to the department of commerce, saying that the farmers of Denmark, Germany and other countries of Central Europe, are passing resolutions and otherwise showing their opposition in their organizations, against the flood of "cheap American farm products, that is filling their markets greatly to their loss. They say they cannot compete with the cheaper American farm products, and they are demanding that their governments pass embargoes and emergency tariffs to protect them from the food products from America.

THE MUSCLE SHOALS OFFER.

ONLY slightly less important than the soldiers' bonus sales tax proposition in congress are the hearings nitrate-power offer before the committee on the Henry Ford Muscle Shoals tee on military affairs. It has developed a great national question as to whether a plant capable of producing large quantities of fertilizers, it is believed at a saving to farmers, shall be sold to a company which guarantees to produce fertilizers and sell them to farmers at a reasonable profit, or whether at the behest of selfish interests it shall be scrapped or compelled to remain inactive. Arranged in favor of Mr. Ford's proposition are the farmers of the entire country and the business interests of the Mississippi Valley. In opposition are the fertilizer and water power interests supporting one of the most powerful lobbies to be found in Washington. Judging by their attitude and statements made from time to time, a majority of the committee are favorably inclined toward the Ford offer.

THE NATIONAL CONFERENCE.

THE national conference of agriculture has put the work squarely up to congress to provide the farmers immediate relief, or suffer the consequences. The agricultural situation in the east is not so acute as in the south and west, but President James R. Howard, of the American Farm Bureau Federation, is undoubtedly correct when he says, "the economic distress of the farmers throughout the whole land is resulting in a political unrest. There is a very imminent demand from many sources that an effort be made to cure our woes, economic as well as social, through governmental measures or agencies and many are advocating establishing state or national control of the regulation of human relationships. They would solve the problems of distress by government ownership. They are even advancing artificial schemes of price fixing. Some of them are already talking of organization of political parties to bring about these results."



Wednesday, February 22.

THE offer of the Alabama Power Company for Muscle Shoals gives Henry Ford considerable competition in its purchase.—The giant dirigible Roma, recently purchased by the United States army from Italy, was wrecked by explosion while in air and caused the death of thirty-four persons.

Thursday, February 23.

FLOODS threatened several cities in the western part of the state in the recent storm period.—An alliance agreement between miners, rail workers and longshoremen has been adopted by the union.—The Ladd bill, appropriating \$5,000,000 for relief of farmers in the famine stricken areas of the western states, was passed by the senate.

Friday, February 24.

LIVE stock brokerage concerns in Wall Street have been forced to quit business and forced into bankruptcy because of the effect of depression.—A \$50,000,000 air line is being planned to extend from Detroit to mid-western and southern cities.

Saturday, February 25.

MANY prominent New York society women have lost large sums of money through A. E. Linsay, who runs

a stock pool.—A bankrupt town of Valparaiso, Florida, was recently sold to a Chicago man for \$6,500.—Students of the Avon, New York, high school go on strike because a forty-five-year old teacher marries a nineteen-year-old boy scholar.

Sunday, February 26.

SOCIETY women run the large Biltmore Hotel in New York City for one day for the benefit of the tuberculosis society.—Berrien county highway commission has started a campaign against overloaded auto trucks because of the damage they do to the roads.

Monday, February 27.

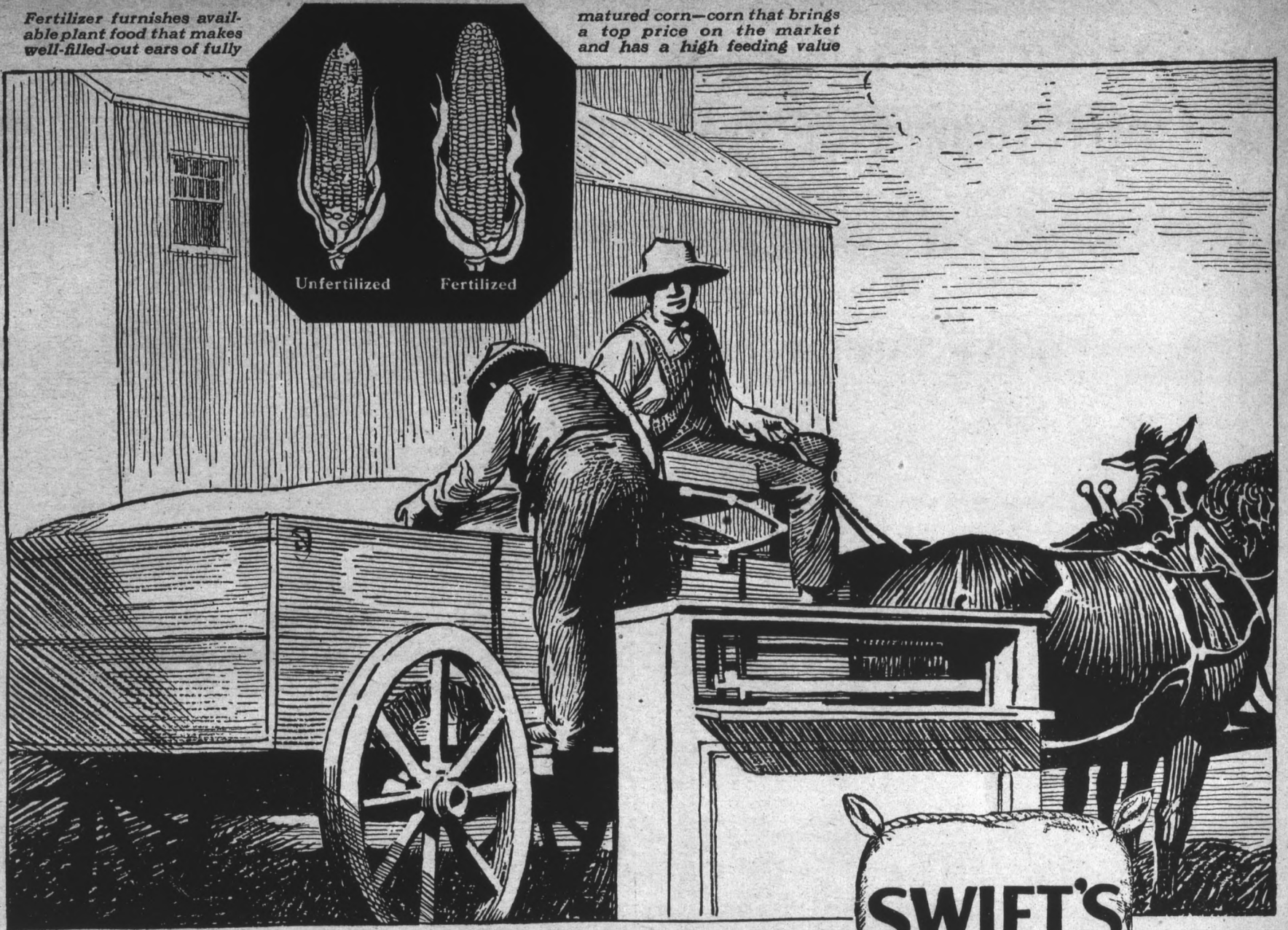
THE recent storm caused millions of dollars worth of damage in Illinois, Wisconsin and Michigan.—A new Sein Feiner outbreak in Ireland is feared.—The American Federation of Labor starts a campaign against the Volstead prohibition act because it is a "moral failure."

Tuesday, February 28.

CHICAGO and suburbs last Friday were rocked by the explosion of thirty tons of dynamite in a stone quarry south of the city.—"Bluebeard" Landru was guillotined in Versailles, France, for the murder of ten women.

Fertilizer furnishes available plant food that makes well-filled-out ears of fully

matured corn—corn that brings a top price on the market and has a high feeding value



Quality decides the market price

WHEN your crops go to market, quality decides the price you are paid. If the quality is first grade, you get the top price. The price decreases as the quality decreases.

In practically every case—both in experiments by Agricultural Colleges and experience of successful farmers—fertilized crops are of much better quality than unfertilized. In fact, the better market price of fertilized crops, alone, often makes a good profit on the fertilizer investment. The increased yield is then clear profit.

Swift's Red Steer Fertilizers are made especially to produce better quality crops as well as bigger yields.

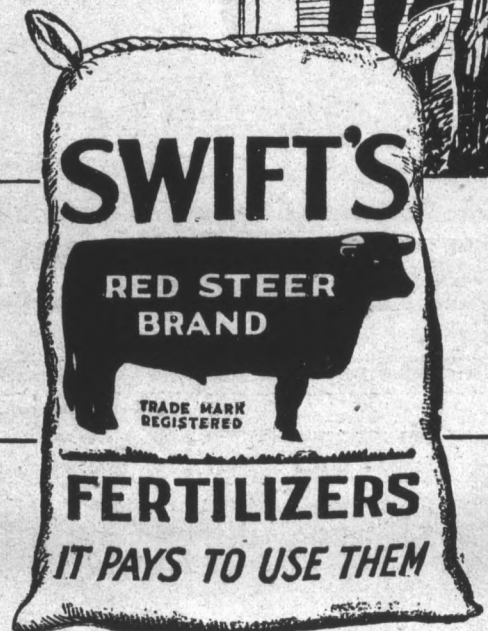
The right proportion of plant food is readily available to give the plant a quick start. The rest is more slowly available to furnish plant food as needed—especially just before maturity when the quality of the crop is made.

Make your crops bring top prices. Use Swift's Red Steer Fertilizers liberally this year. Buy from your local Swift dealer or write us direct.

Swift & Company, Dept. 43

Fertilizer Works
Hammond, Ind.

Dealers who are now selling or could sell fertilizers should write for our proposition. Your territory may be open.



Made for your crop

For over fifty years, Swift and Company has maintained a reputation for making each product the best of its kind. This reputation stands back of every bag of Swift's Red Steer Fertilizers.

By years of research, Swift and Company has determined the right kind and the right amount of raw materials to combine into a fertilizer for each particular soil and crop.

A good proportion of the plant food is readily available to give the plant a quick start. The rest becomes available at the proper time to produce crops of best quality.

Play safe. Use Swift's Red Steer Fertilizers—the fertilizer made for a definite purpose.

"IT PAYS TO USE THEM"

News From Cloverland

By L. A. Chase

CLOVERLAND FARMERS' INSTITUTE.

THE Cloverland Farmers' Institute will be held at the Menominee County Agricultural School, Menominee, Michigan, on March 29-30-31.

The men's sessions will stress the economic phases of agriculture and how it must return to a more sound basis. These issues will be discussed from the dairy, farm crops, soils and farm bureau standpoint. Our state college has been very liberal in supplying the best men they have to discuss these subjects.

The women's session will take up the new vitamine theory and other health problems, also clothing and general community conditions as they exist in the upper peninsula.

The annual grain show will be featured again in which loving cups will be given as prizes for the best displays of all grains grown in this section. This show is open to upper peninsula competitors.

There will be the customary educational displays again this year. The big grain show, soils display, correct clothing display and nutrition display featured at the Farmers' Week at the Michigan Agricultural College will be here. The National Dairy Council and the school will display garments, art fibre work, and the accomplishments of the auto-mechanic course.—R. N. KEBLER.

SOY BEANS FOR CLOVERLAND.

IN the season of 1921, Dr. John Lowe, head of the department of biology of the Northern State Normal School, Marquette, made experimental plantings of soy beans of several varieties. His report on the results of this experiment is to the following effect: The Manchu matured not quite as early as Evan's Early Black or Ito-San. Two plantings of Ito-San from different sources matured at the same time. Medium yellow seed, grown in Illinois, was last to mature. Mammoth yellow seed, grown in South Carolina, did poorly and did not flower. Evan's Ogemaw matured and did exceptionally well. There was no particular difference as to the time of maturing of Evan's Early Black and Wisconsin Early Black.

All soy beans grew here very luxuriantly—especially those that were limed. The lime used was air-slaked lime and was scattered very lightly on the surface of the soil. Plants growing on the treated soil were from four to six inches taller than those grown on untreated soils. The earliest maturing plants were selected for seed. It is proposed to continue selection in order to develop early maturing varieties. The plantings were made on May 25 and the crops were harvested on the first of October.

GOOD ROADS SAVE MONEY.

MR. R. P. MASON, county highway engineer of Delta county, recently addressed the Escanaba Rotary Club on the subject of good roads in that county. On the basis of governmental computations, he estimated that the good roads of Delta county saved the people of the county \$546,480 annually compared with the cost of moving similar loads over bad roads. The people of Delta county have invested in automobiles and trucks, he estimated, some \$2,546,000, and in good roads \$834,760. The total cost of state and county roads constructed in Delta county during the past nine years was given as \$1,573,739, of which

amount the state had contributed \$738,979. There are 202 miles of trunk-line roads in this county. He explained why in the main it would not pay to construct concrete roads, whose cost would run above \$30,000 per mile, while macadam could be put in for \$10,000 or less. Yet in view of the fact that there is a vehicle traffic between Gladstone and Escanaba running as high as 2,500 per day in the summer months, more permanent construction than is now employed would have to be considered, he said. From Chippewa county comes the report that the heavy marketing of hay recently, resulting from the rise in its price, has put some of the roads of that county in bad shape, this winter.

POISONED BAITS.

IN view of the criticism of the present policy of dealing with predatory animals in upper Michigan, Mr. J. S. Ligon, expert of the United States Biological Survey in charge of this campaign in Michigan, has denied that any serious loss of valuable animals results from the poisoning of noxious animals. Deer do not eat the bait, he says, and it is questionable whether partridge do. The use of poison is not a matter of choice but of necessity, he says. Winter conditions make the use of steel traps impracticable for more than three months at a time when the depredations of predatory animals are most serious. At this time poison is used to supplement trapping. Poison is not used when the snow disappears. A record is kept of all poison placed, and unused baits are removed in the spring.

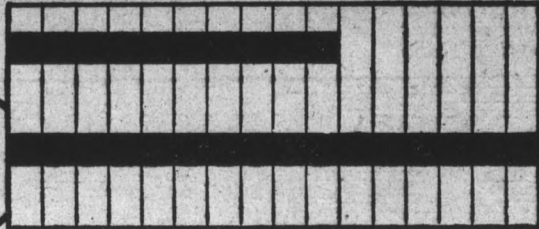
HOLD SUCCESSFUL MEETING.

A GROUP of men representing large and small real estate owners in the upper peninsula and interested in problems connected with land ownership, met in Marquette recently, under the auspices of the Upper Peninsula Development Bureau.

The meeting was a very successful affair, about fifty men being present. Mr. Buckbee, of Escanaba, assailed the wasteful expenditure of money on advertising in certain large metropolitan dailies, stating that he had seen \$150 well-placed in judicious advertising bring excellent results. It was necessary, he said, to connect up prospective land purchasers with actual pieces of land. A farmer in quest of a new farm does not care for a general description of land, but he wants to know just what a particular piece of land is good for. He also adverted to the lack of signs along highways which would call attention to the fact that the particular piece of land behind them is purchasable. He thought that not a little of the advantage of having tourists visit northern Michigan, had been lost by this failure to have roadside signs that would sell the land. He had personally seen excellent results, he said, from this practice in his own territory. At the close of the meeting, State Senator Frank Vandenberg of Marquette, a farmer and member of the present special commission on inquiry into taxation, made an impromptu speech in which he again referred to this subject of advertising our lands, and said that the best advertisement was an actual settler making a good living off the land. We have the best dairy country anywhere, he said, but we lack men who thoroughly understand the business and who, with their families, were entirely enlisted in the business and are being given every opportunity for success. He proposed that, as far as possible, we purchase farm products

Ordinary
40%
Dynamite

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160



Atlas
Stumping
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2 L.F.

60 MORE sticks to the case

THE ordinary 40% dynamite delivers 100 sticks to the case, while Atlas Stumping Special No. 2 L. F. has 160 sticks to the case. You load it stick for stick—think of the number of stumps the 60 EXTRA sticks will bring out. Atlas Stumping Special No. 2 L. F. has the stick strength of a 30%. It has the power to remove your stump clear. It also has the s-l-o-w pulling power which cleans the roots of dirt and leaves a small hole. It is a labor, time and money saver.

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The Federal
Farm Loan
System will help
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Ask the County
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SPECIAL EXPLOSIVES No. 2—L. F.

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STOVER



Leads Them All!

For years Stover Samson windmills have been famous for long service.

NOW that we offer them HYATT Roller Bearing Equipped they stand without a rival. Noiseless. Oil-less.

Turn when other mills are standing still. Write us TODAY for FREE windmill booklet.

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Also Makers of Stover Samson Windmills, Feedmills, Commutators, Ensilage Cutters, Pump Jacks, Working Heads, Wood Saw Frames and Hardware Specialties.
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Makes Milk. Fattens Factor. Quickens Growth. Doubles Work Horse Power. Write today for No-Risk Trial Offer Chicago Molasses Co., 1131 East 77th St., Chicago, Ill.

We Pay \$200 Monthly Salary—furnish rig and expenses to introduce our guaranteed poultry and stock powders. BIGLER COMPANY, X683, Springfield, Ill.



Poultry Fences

Peerless poultry fences are furnished in a number of particularly handsome and attractive styles. All are closely and evenly spaced. They go up on the posts true, even and straight, without bag, sag or pocket. No top rails nor base boards needed.

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MONTGOMERY WARD AND GEORGE R. THORNE

started business under the name of: "Montgomery Ward & Co." in 1872. Mr. Ward had been a clerk in a small town store, with farmers as his customers, farmers as his friends. And so he conceived the idea of helping save the farmer from paying three or four profits by selling him goods direct by mail at one small profit. With a capital of less than \$2,000 they issued their first little one-page leaflets, and so began this vast business of Montgomery Ward & Co.



In 1874 the first catalogue of Montgomery Ward & Co. was issued. It contained eight pages, about three by five inches in size. Today this 50th Anniversary Catalogue, this 1922 Price Guide, shows about everything for the Home, Farm, and Family—new, fresh merchandise of standard quality always, with every price based upon today's low costs of production.

If you have a copy of this book, buy from it regularly. It always brings you a saving.

And lend this book to your neighbors.

Let your neighbor take advantage of the cash saving it always offers.

The Oldest Mail Order House is Today the Most Progressive

FOR FIFTY YEARS the American Farmer and Montgomery Ward & Co. have been helping each other.

For Fifty Years we have worked conscientiously always to offer you a saving. And you, by your appreciation, by your patronage, have built this business, until today we have five million customers.

And there is the proof of the saving and the service Montgomery Ward & Co. have rendered to the public. No business that is not sound can weather the storms of fifty years. No business that does not render a genuine service can win the patronage of five million people.

Our big 50th Anniversary Catalogue, pictured below, adds greatly to the sum of all our past achievement in making low prices. This book is today a Price Guide, sets the low price standard for America, and tells you the right price, the price you should pay for almost everything you buy.

This book shows the new-old spirit of Ward's—progressive, alert, working to give lower prices, to give you bigger and bigger values, and better and still better service—and always under the Banner of the Golden Rule.

TO THE AMERICAN FARMER:

Let Us All Pull Together

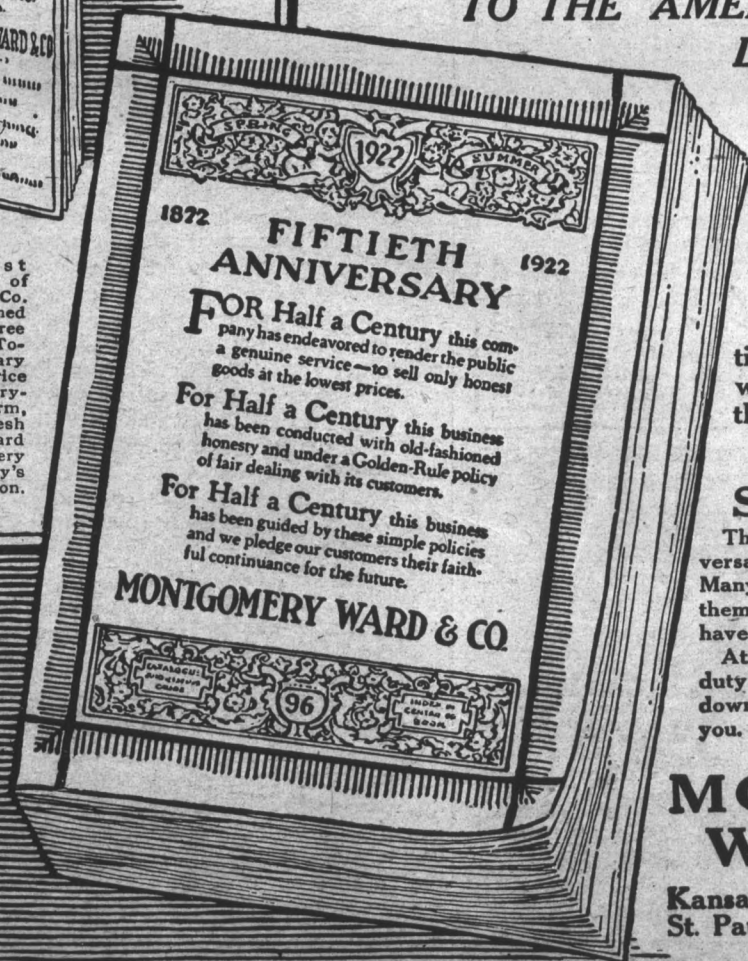
We know business conditions on the Farms of America, as well as in the towns and cities. We have customers everywhere. We believe the worst is behind us and we are hopeful and encouraged. But we are all in the same boat. We must all pull together. We are going to do our part with you.

This season you will need some new tillage tools to replace those that are worn out. We are going to furnish them without one cent of profit to us.

Our Tillage Tools Sold Without Profit

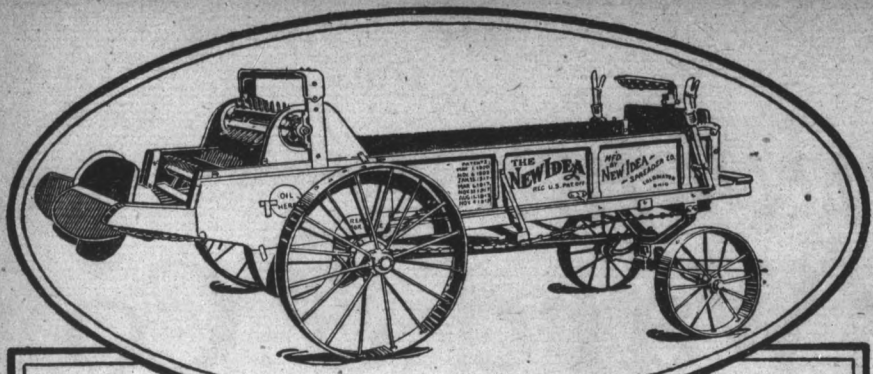
The prices on Tillage Tools in our 50th Anniversary Catalogue are absolutely no-profit-prices. Many items are priced at less than we can replace them for today. And the prices all through this book have been made to meet present-day conditions.

At Montgomery Ward & Co. we feel we owe a duty to our customers—to help make prices come down. We are in the same business boat with all of you. Let us all pull together. We are doing our part.



MONTGOMERY WARD & CO.

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St. Paul Portland, Ore.



Insist on Getting the Genuine NEW IDEA Spreader

DON'T let anyone sell you a spreader simply on the claim that it is "as good as the New Idea." Refuse imitations--and save money! Demand the *genuine*--and look for the name on the machine--

NEW IDEA
Registered U.S. Pat. Off.

The Original Wide Spreading Spreader

The New Idea leads in downright spreader value--today as always! Our GOLD SEAL GUARANTEE protects you absolutely against breakage or defects.

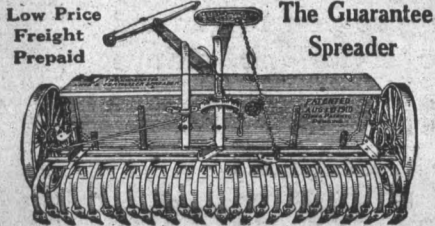
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Drop us a card--or mail the coupon--today. Find out why the old reliable New Idea lasts longer and does far better work. Get the facts now--direct from the largest spreader factory in the world.

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COLDWATER, OHIO

The New Idea Spreader Co., Coldwater, Ohio
Please send prices and full information on New Idea Spreaders.

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Low Price Freight Prepaid **The Guarantee Spreader**

A Giant of a lime and fertilizer spreader. Spreads evenly or sows in rows. Thrown in and out of gear from seat. Harrowing and Covering Attachment, acre-measure, screen lid, seat, necks, etc., double and single-trees. Write for big free spreader catalog. Guarantee Mfg. Company, Dept. B, Woodboro, Md

BEE SUPPLIES

Beehives, Section Boxes, Comb Foundation, Smokers, etc. Also complete outfits for beginners. General agents for the A. I. Root Co. in Michigan. Beeswax wanted. Send for 1922 catalog.

BERRY SUPPLIES

A grade wood baskets, Waxlined paper baskets, and 16 qt. crates. Send for price list.

MAPLE SYRUP CANS

With 1 3/4" screw cap. Gallons, \$8 for carton of 50; Half gallons, \$11.25 for carton of 54; Quarts, \$6.75 for carton of 90. Send in your orders.

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NEW rope lariat with snap \$1.00
Army knapsack 75c | Saddles \$6.50 up
LUGER pistol \$21.50 | Cal. 30 rifle \$16.50
Full set Army steel letters and figures, \$1.00.
15 acres army goods. Illustrated cata. for 1922-372 pages--including full and highly interesting information (specially secured) of all World War small arms, mailed 50 cents. Circular 16 pages 10 cents. Established 1865.

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FROST PROOF CABBAGE PLANTS. Early Jersey Wakefield, Charleston Wakefield, Succession and Flat Dutch, at \$1.25 per 1,000, express collect. Parcel post paid, 100 at 35c; 500 at \$1.50; 1000 for \$2. G. J. & C. Whaley, MARTIN'S POINT P. O. S. C.

Grimm Alfalfa Seed, Genuine, from old Montana fields. Hardy, scarified, tested seed. \$4.75 per 100 lbs delivered your station. Direct from growers. Valter Christensen, Box C, Minot, N. Dak.

Seed Oats Limited quantity of Worthy variety, grown in 1920. Write for particulars. E. S. CHRISTIANSEN, Corral, Mich.

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Northern-grown Bell Brand Sudan has met northern conditions perfectly. It has proved the finest hay and pasture grass. Defies drought--resists heat--always yields abundantly. Easy and inexpensive to sow. Produces three crops a season. An annual--never a pest. Used extensively by all leading farmers and stockmen, giving wonderful results everywhere.

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Send today for the big Isbell Seed Annual, giving information about all garden and field seeds, cultural directions and quoting prices direct from grower. You will find it a helpful book that will save you money. And with it, samples of Field Seeds will be sent free on request. Send for your copy today.

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Let us help you select your seeds as you select your brood sows--for size and vitality. Supreme Quality seeds are subject to rigid State and U. S. Government tests. We pay the freight. Our big seed catalog will open your eyes. Not connected in any way with any other mail order seed house selling to farmers. Write TODAY.

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White Blossom Sweet Clover Seed
10c Per pound F. O. B. Latty, Ohio. Bags free. Guaranteed pure Hubam seed. 50c per pound prepaid. All seed scarified. Inoculating bacteria for alfalfa and sweet clover, 50c for 1/2 bu. size. E. E. BASIL, LATTY, OHIO

Bean Scarcity Looms

A Few Figures on Michigan's Important Cash Crop

IF statistics count for anything in the making of markets, owners of beans are in a strong position and consumers may find that beans have been removed from the bargain counter for the rest of the crop year. Both in 1920 and 1921 crops were small, smaller than any other since the yield has been estimated by the department of agriculture. The following table shows the production record for a series of years:

Year	Bushels
1921	9,118,000
1920	9,077,000
1919	13,349,000
1918	17,397,000
1917	16,045,000
1916	10,715,000
1915	11,321,000
1914	11,585,000
1909 (Census)	11,145,000

The consuming public in the United States is probably using fewer beans than it has at times in the past as a lot of the doughboys ate enough of them during the war to last them for a lifetime, but in spite of any such reduction, two small crops in succession promise to make a rather tense situation before the 1922 crop comes on the market.

Besides the reduction in the crop yield, a significant change has taken place in our foreign trade in beans. Exports in the calendar, 1921, were 1,409,703 bushels. This is only 355,000

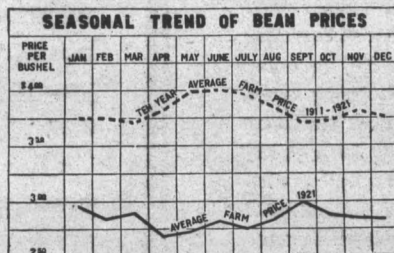
Stocks in California are also very much smaller than at this time last year.

During the war the demand for pork and beans brought high prices for red kidney beans and stimulated the production of them at the expense of the white sorts. The margin in price between the two has narrowed a great deal in the last few months but this readjustment probably is not far from completion.

Six states, Michigan, New York, Colorado, California, New Mexico and Arizona have been the chief bean producers until the last few years when Idaho began coming into prominence. In general, production seems to be shifting westward because of smaller losses from anthracnose than are suffered in the east.

The demand for beans usually sags with the coming of hot weather. In the season of the year when beans are likely to be scarce because of the lapse of time since harvest, purchases are apt to decrease. Nevertheless, prices on the average have reached the high point during the summer months as shown by the accompanying illustration on which a ten-year average of prices paid to producers as compiled by the United States Department of Agriculture is given. Corresponding prices for 1921 show a different behavior as a result of the business depression. April was the low month of this year, while the high mark was reached in September.

When the crop is small, such as appears to be the case this year, the seasonal advance in the summer is likely to be much more pronounced and extend over a longer period of time than when the supply is abundant.



bushels less than in 1920. Average exports for the four years, 1917 to 1921, were 2,424,000 bushels. Imports during 1921, on the other hand, were only 274,058 bushels compared with a four-year average of 3,905,000 bushels.

The foreign trade has changed from an average import balance of 1,481,000 bushels during the four years as shown by the figures above to an export balance of 1,235,645 bushels in 1921. When this change in the export trade is taken into account, the supply of beans for domestic consumption during the present year appears to be but little more than fifty per cent of the quantity actually consumed in this country on the average during the last four years.

Although these figures show that the bean bag may become quite lank before next October if only home needs are taken into account, some beans are still being sold for export, the American Relief Administration having been a recent buyer for shipment to Russia.

Prices remained low throughout the first half of 1921, due to the general business depression so that imports were not attracted. The emergency tariff duty of two cents a bushel amounted practically to an embargo as long as prices remained upon a low level. The foreign market still is about one cent above an import basis.

The bean market made little or no response to the situation during the first months after harvest as producers sold freely in spite of a small crop and wholesalers and retailers were disposed to carry light stocks, at least until after inventory taking in January. Since that time a brisk trade has been done. Numerous rush orders suggest that the beans are wanted to supply an urgent consumptive trade and not for storage.

Trade estimates indicate that stocks in the producing sections in Michigan, Colorado and New Mexico are only about twenty per cent of the crop.

SHORT QUERIES AND REPLIES.

Is buckwheat straw good for feeding? R. Y.—Answer: We do not recommend the use of buckwheat straw for feeding live stock. It is of low feeding value and may cause digestive disturbances.

What are the various benefits derived from putting wood-ashes on the land? I. D.—Answer: Wood ashes supply potash, the amount depending upon the kind of wood from which the ashes were made and the method of housing the ashes. They are also valuable for their content of lime, two tons of the wood ashes often containing an amount of lime equal to that of a ton of limestone. There is also a small amount of phosphoric acid present.

Will it be practical to plant soy beans year after year in the same field? B. A.—Answer: We would not advise the continuation of one crop from year to year on the same land. Such a practice is likely to reduce production unless the land is unusually well cared for. It also encourages the multiplication of insect pests and plant diseases.

Could a sand-sucker be used to remove marl from the bottom of lakes? L. M.—Answer: While we do not know of anyone having had experience in removing marl by this means, we feel quite certain that the attempt would not be successful, owing to the texture of the marl. This material, it seems, would not be readily dislodged by the suction method.

ANOTHER ALFALFA RECORD.

On January 1-2 we threshed from sixteen acres seventy-one bushels of nice clean alfalfa seed. Ten acres of this was Grimm and the rest common. This seed was grown on Locust Hill Farm.—J. C. STEVENS, St. Clair Co.



The "U. S." Boot

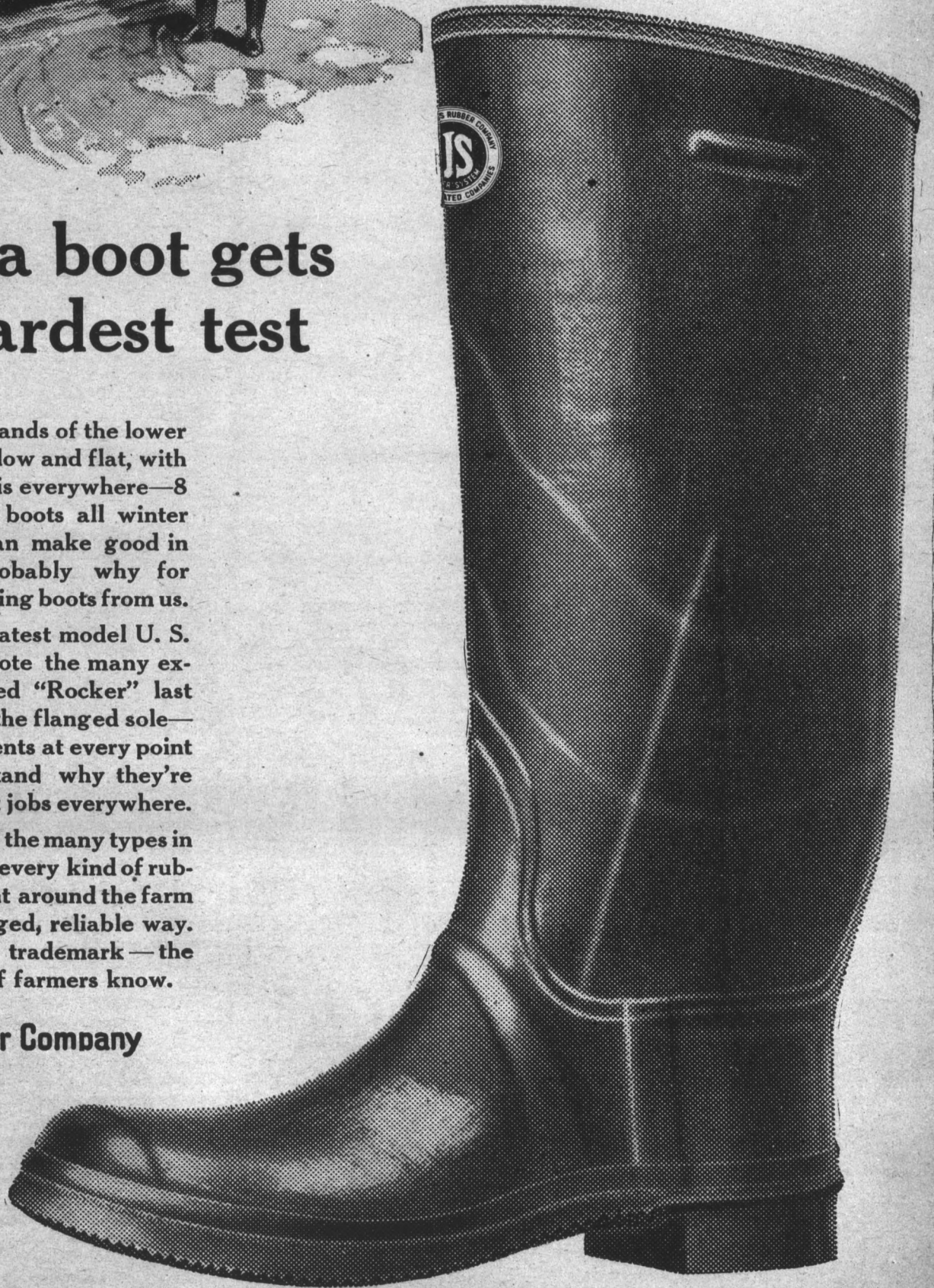
Here's where a boot gets its longest, hardest test

DOWN in the rich farm-lands of the lower Mississippi Valley it's low and flat, with hardly any drainage. Mud is everywhere—8 out of every 10 men wear boots all winter long. No ordinary boot can make good in Mississippi; and that's probably why for forty years they've been buying boots from us.

Look over a pair of the latest model U. S. Boots at your dealer's. Note the many exclusive features—the curved "Rocker" last that makes walking easy—the flanged sole—the extra heavy reinforcements at every point of strain. You'll understand why they're making good on the hardest jobs everywhere.

U. S. Boots are just one of the many types in the big U.S. line. We make every kind of rubber footwear you could want around the farm—all built in the same rugged, reliable way. Always look for that U. S. trademark—the honor mark that millions of farmers know.

United States Rubber Company



Look for this trademark on



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This Barn for 40 Cows

**ONLY \$70.
A MONTH**



Now Is A Good Time To Build

Costs have so lowered that average building costs are not likely to decrease for some time.

In any event, the profit a Jamesway barn will make for you each year you use it, will far offset any possible saving that can be effected by waiting.

For example, drinking cups alone should pay two-thirds the cost of the entire barn. Tests have proved that on the average, Jamesway cups increase the profits from each cow \$14.01 during the cold weather season.

A James planned barn, complete with James equipment, Jamesway insulation, ventilation, double glazed windows and silos can be built for \$21 per cow per year.

If you get your money from the Federal Farm Loan System,

you have up to 40 years to pay back.

If you intend building a new barn, or remodeling your old barn, either this year or later, why not send now for our 336-page book. It tells all about Jamesway ventilation, Jamesway stalls, stanchions, bull pens, cow pens, calf pens, manure carriers, feed carriers, drinking cups and other labor saving money making inventions for the dairy farmer; and gives much valuable information regarding building.

Ask for Dairy Barn Book No. 24.



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Farm Organization News

SHORTAGE IN FINE WOOLS.

MR. C. J. FAWCETT, Director of Wool Marketing of the American Farm Bureau Federation, reports that practically all of the pooled wools in the various concentration points have been disposed of on a gradually rising market. Within the last two weeks the market has been a runaway affair, an acute shortage of "spot" wool developing practically over night. No attempt is made by the buyers to conceal the shortage of wool that now exists, particularly of the finer grades. It is estimated on good authority that the available supply of wool in Boston is not in excess of 63,000,000 pounds.

NATIONAL GRANGE URGES AN EXCESS PROFITS TAX TO PAY SOLDIERS.

If more money must be raised to pay a soldiers' bonus, it should be secured, according to the national grange, by a re-enactment and re-extension of the excess profits tax. The grange calls attention to the fact that with less than one-third of the population engaged in agriculture, the proposed eight-point tax program would unload at least one-half of these taxes upon agriculture directly in addition to the farmers' share as consumers in other taxes. More than half the gasoline tax, more than half the automobile tax, all of the tobacco tax, a large share of the real estate tax, the bank check tax and parcels post tax should be borne directly by agriculture. The grange proposes starting an aggressive campaign in favor of the immediate re-enactment of the excess profits tax for soldier bonus purposes. The state granges and eight thousand subordinate granges will be enlisted in this work and will cooperate with other farm organizations.

TO SELL PRODUCE IN DETROIT.

PLANS for placing into operation a "produce sales department" to be a part of the State Farm Bureau were perfected at a conference held in Detroit on February 20-21, those in attendance being M. L. Noon, George Friday and E. C. McCarthy, a special committee of the executive board selected for this important work; C. L. Brody, secretary-manager of the state association; George C. Raviler, head of the purchasing department; Hale C. Tennant, federal and state marketing specialist and extension leader of the M. A. C., and Milton Carmichael, secretary of the committee that has been working for more than a year for a solution of this problem.

It was agreed unanimously that this service was needed and demanded by the farm bureau membership all over Michigan; that with the new federal law just signed by President Harding that it would be possible to develop a nation-wide selling policy. This newly-created merchandising project will be a department of the State Farm Bureau, strictly cooperative in its nature and the affiliated members will be served at actual overhead costs. Produce exchanges will be operated near both the eastern and western markets in Detroit, also stalls thereon.

"The produce sales department" of the farm bureau will specialize at the start in butter, eggs and poultry, fruits and vegetables, dressed hogs and veal. The entire output of some cooperative creameries will be sought; also arrangements have been made to handle all of the maple syrup produced in Michigan and honey in large quanti-

ties. Arrangements have been made for storage facilities to handle winter apple crops and other commodities that should be held for future distribution.

A sales organization of experienced men in produce marketing will be built so that the farmers can be assured that their goods will receive the proper attention. By handling quality goods in volume it will be possible to create a demand through the best distributing centers in Detroit and at other points when the volume warrants. Milton Carmichael, 401 Buhl Block, Detroit, Michigan, will look after the preliminaries of constructing this commodity sales service department of the State Farm Bureau, and growers desiring further information should communicate with him direct.

ALFALFA EXPERIENCES.

(Continued from page 246).

bare spots in the spring," said L. L. Lawrence, of Decatur, at another meeting. "Alfalfa is something like live stock. We'd hardly think of turning our dairy herd out around the straw stack all winter long. If we did they would come through in pretty poor shape. Some of them die off from exposure and lack of nourishment. That is just what happens to a lot of our alfalfa. It literally starves to death."

"My recommendation," he continued, "would be to use hardy seed and then feed it. Manure and acid phosphate pay returns on alfalfa as well as other crops. Along with that let it have at least a six or eight-inch growth when winter sets in and much of the winter-killing will be eliminated."

The past season, because it was unusually favorable to seed production, has stirred up a lot of interest in the possibilities of that phase of alfalfa culture in Michigan. Mr. Petz, of Capac, produced fifty-five bushels of high quality seed this year from seventeen acres and has been getting good seed yields for some time. Several farmers in Clinton, Tuscola and other counties report favorable yields, and D. L. Krohn, of Elkton, has an acre of Cos-sack planted in rows, which has been producing seed successfully for several years. His seed has had an important influence on the success of alfalfa growing in that community. Mr. Krohn's neighbors, by getting their seed from him were, often unknowingly, insuring the permanence of their stand by making use of this very valuable and hardy variety.

Undoubtedly the New Hardigan alfalfa will be used for seed increase this coming season. A great many Michigan farmers prefer producing their own seeds if the yields will be profitable and this variety promises to set seed well under Michigan conditions. Until home growing of seed is proven practical as an every year proposition Michigan farmers must depend on securing large supplies of northern-grown seed from the northwest.

Throughout the campaign to date, while visiting Michigan farms, talking with Michigan farmers, and hearing them talk to each other, these important considerations have stood out: That success in securing stands of alfalfa is attained by:

- Seeding on a well-drained soil.
- Insuring a firm, well-packed seed-bed.
- Making sure that an abundance of lime is available.
- Inoculating the seed or soil.
- Using northern-grown seed.

A FINE FUR COAT

Made from Your Own Horse or Cow Hide. We make this coat to measure from the hide you send. Write us for special low price.

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

Also Ladies' Coats and Furs, Robes, etc. We have been in the tanning business since 1878 and guarantee satisfaction.

FREE Book of styles of Men's and Women's furs. Write for it today

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116 East St. Reading, Mich.

TIMES ARE HARD Hides and Furs are cheap in price,

So are our PRICES on making FUR COATS, ROBES and LADIES' FURS.

WE TAN YOUR HIDE and make you the best FUR COATS or ROBE for \$15.00. Also tan hides for harness and sole leather, deer skins for buckskin.

Send for our catalog. It's free.

The Blissfield Tannery,
W. G. White Co. Inc.,
Blissfield, Michigan

TANNERS

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

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

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

Guaranteed Batteries 13.75 and up

Greatest offer ever made

You can save from \$7.50 to \$20 by purchasing your auto battery from Ward's. We fully guarantee our De Luxe Batteries for one year—we guarantee they are built of first quality materials throughout—we guarantee they will give you as hot a spark, light your lights as brightly and spin your motor as fast as any battery.

30 Days' FREE Trial

You can prove every statement we make by using a De Luxe Battery in your car for 30 days without risking a cent. Never before has such an offer been made on a guaranteed first quality battery backed by a house like Ward's. De Luxe Batteries are made for all cars and shipped charged—ready to use. You can easily install our battery and satisfy yourself of the bargain we offer.

Order direct from this ad and be sure to state exact model and year of car. Send your order to house nearest you. Write for catalogue or quotation on cars not listed.

For Ford Liberty Starter \$12.75	
Buick 19-20-21 . . . \$17.95	Hupmobile 1918 to 20 \$15.25
Chevrolet 490 . . . 13.75	Maxwell 4 volt . . . 17.50
Chandler 1919, 20-21 18.25	Nash 1919, 21 . . . 18.25
Dodge 1915 to 1921 . 19.95	Oakland 1920-21 . . . 18.25
Hudson 1915 to 1921 18.50	Studebaker EG & EH 18.50

Address: Dept. 5-61
Montgomery Ward & Co.
Chicago Kansas City St. Paul

ALL WOOL SHIRT

New, 10 oz. virgin all wool serge, olive drab. Extra full cut, silk seamed, double stitched throughout. Lined shoulders, reinforced elbows. Bone buttons, double pockets. First big lot new U.S.A. regulation shirts released. A \$2.50 value. Sizes 14 to 20. Anniversary Sale price \$1.99 plus 20c for mailing. Money returned if not satisfactory.

ATLANTIC STORES
324 Koplin Bldg. Atlanta, Ga.

Harness and Sole Leather For Sale
DIRECT FROM TANNERY. For harness, soles and repairing purposes. STEVENS POINT TANNERY, Stevens Point, Wis. Write for prices and samples



Illustration shows the following
 "Standard" Fixtures:
 Pembroke Bath with Shower
 Penwood Lavatory
 Devoro Closet
 Other suitable and less costly
 materials than tile can be used
 for finishing bathroom

"Standard" PLUMBING FIXTURES

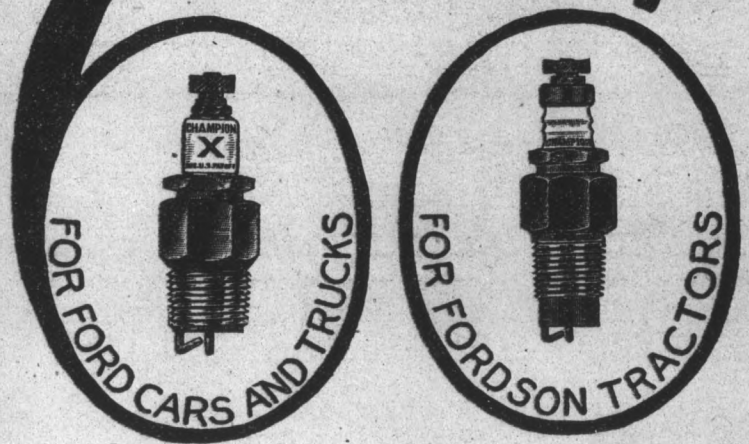
AUTHORITIES agree that nothing adds so much to the health and comfort of the home as a bathroom.

Is your family enjoying this modern convenience?

Write today for catalogue "Standard" Plumbing Fixtures for the Farm. It is illustrated in colors, shows complete bathrooms and fixtures as well as model kitchen and laundry.

Standard Sanitary Mfg. Co., Pittsburgh

Reduced to ϕ



THE GOOD OLD GENUINE CHAMPION X

Ten years satisfactory service in millions of Ford engines.

Be sure you get the Genuine CHAMPION X for you know, from experience, they mean to your Ford Engine the best possible results.

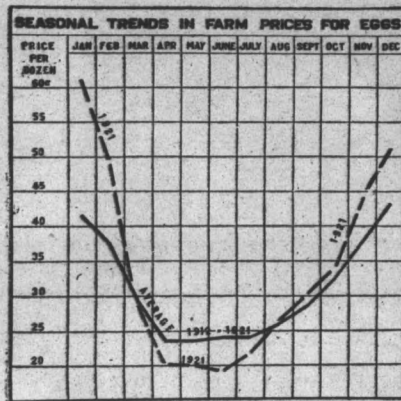
Champion Spark Plug Co., Toledo, Ohio.

The Egg Producer's Outlook

THE rate of consumption during the last few months has been above the average and prices have climbed steadily. Meanwhile the immense storage stocks accumulated last spring were whittled down until they were of only average proportion by December 1.

After the middle of December, signs that a relatively large supply of fresh eggs could be expected tight along could be seen. With a prospect of constantly increasing receipts of fresh eggs, holders of cold storage eggs felt that they were on an insecure footing and many of them forced their eggs on the market.

Expectations of an unusually large supply of eggs during the next few



months may be disappointing. A heavy movement from the southern states which are especially prominent during the spring has been heralded already, but a spell of cold weather sufficient to make every hen north of Palm Beach shiver on her roost is not impossible. Such conditions inevitably reduce the supply of eggs and periods of shortage when cold storage eggs will be badly wanted are not impossible.

The cycle of egg production during the year is shown approximately by the following table which gives for 1920 the percentage of total yearly receipts at five markets arriving during each month of the year:

Month	Pr Cent.
January	3.2
February	7.1
March	13.5
April	16.6
May	15.3
June	14.8
July	7.8
August	7.8
September	4.9
October	4.1
November	2.6
December	2.3

Total100
Naturally prices follow a reverse course as shown on the accompanying chart. Ten-year average prices to the producers estimated by the department of agriculture for the first of each month have averaged lowest in April and May and highest in December and January. During 1921 prices followed the same general course but went to greater extremes as to both high and low points. Since December 1, 1921, there has been a decline of about twenty-five per cent so that the February 1 farm price is likely to drop below forty cents.

Already the prospective price level during April and May is a factor in the market outlook. On the Chicago Mercantile Exchange where eggs are bought and sold for future delivery, April standards are being traded in at twenty-two to twenty-five cents per dozen, which is lower than any year since 1916.

Refrigerator storage of eggs cannot be engaged in conveniently by the small individual producer in order to take advantage of winter prices, but this is one of the functions which co-operative egg marketing organizations (Continued on page 275).

Think of it - 150 EGG Ironclad INCUBATOR FOR ONLY \$13.85

Made of Genuine California Red-wood, galvanized iron covering, triple walls, asbestos lining, deep chick nursery, hot water heat, copper tank and boiler, self regulating. Shipped complete with fixtures, set up, ready to use. The biggest bargain on the market. 30 days' trial—money back if not satisfied. Absolutely no risk when you buy Ironclads. Or we will ship you this

150 Egg Incubator and 150 Chick Brooder, both for \$19.75

Both for \$19.75
150 Egg and 150 Chick Brooder

150 Egg Incubator and 150 Chick Brooder, both for \$19.75

260 Egg Incubator \$20.25

260 Egg Incubator with Brooder 28.75

This Incubator has two doors and two egg trays. Order direct from this ad and save time, or send for free catalog today.

IRONCLAD INCUBATOR CO. Box 77 Racine, Wis.

Money Saving Brooder For Poultry Raisers

This all-fuel, Air-tight Colony Brooder Stove is revolutionizing brooding methods. It will brood chicks at less cost per chick than any other known brooding device.

BOWERS BROODER STOVE is an AIR-TIGHT, self-regulating Stove. That's why it burns SOFT COAL with such marvelous success and at a saving of nearly half over hard coal. Greatest stove in the world to hold fire. Economy of fuel more than pays for it. Burns hard coal or coke if desired. Holds fire over night with stove wood. Write us for literature.



F. M. Bowers & Sons Company
1923 W. Washington
Indianapolis, Ind.

Detroit Incubator \$12.45

140-Egg Size - Guaranteed - has double walls, copper tank, full-size nursery, automatic regulation, thermometer held so that chicks cannot break it when hatching. Detroit Brooders, too. Double walled, hot water heated. Write for special low price on both machines.

Detroit Incubator Co.
Dept. 11 - Merritt St., Detroit, Mich.

Keep Your Hens a Laying

Trust your hatching to time-tried and tested "SUCCESSFUL" Incubators and Brooders Used by the big money-makers who stay in business year after year. Poultry Lessons Free. Booklet, "How to Raise 48 Out of 50 Chicks," 18 cents. Get it free. Write today.

29 Years Making Good
BES BOWERS INCUBATOR CO. 326 Second Street, San Mateo, Cal.

Chickens Sick? Hens Not Laying

There's no excuse for roup, colds, canker, sore head, chickens pox, skin disorders, cholera, indigestion, bowel troubles and such ailments. GERMONE positively will rid your chickens of disease—and keep them healthy. For over 20 years the dependable remedy and preventive. Get GERMONE and use it! FREE BOOK-LETS, which explain proper feeding and care and how to keep hens laying regularly the year round. At drug or seed stores. If no dealer, order by card. 75c and \$1.50 sizes. Send no money—Postman will collect. No extra charge.

Geo. H. Lee Co., Dept. F-33
Omaha, Neb.

POULTRY

DAY OLD CHICKS HOMESTEAD FARMS Leghorns

We are issuing a Bulletin that describes the kind of fowl the farmer now days wants. Send for this description of our Pure Breed Practical Poultry.

The highest class practical stock in Michigan; stock that each year is also now being shipped to poultry farmers of other states.

You will like particularly the White, Brown and Buff Leghorns of this breeding; they give the eggs. Also Barred and White Rocks; Reds; Wyandottes; Orpingtons; Anconas.

STATE FARMS ASSOCIATION
B3, Kalamazoo, Mich.

Baby Chicks

We have 5 Varieties. S. C. W. Leghorns, English W. Leghorns, Anconas, Brown Leghorns and Barred Rocks. Quality and prices are right. 97% guaranteed alive upon delivery. We never have booked so many orders at this early date as this season. Most all are repeated orders. We advise you to order early to avoid disappointment. Our first hatch will be of March 15. We ask you to give us a trial, we are sure to please you.

City Limits Hatchery,
R. 5, Box 11, Holland, Mich.

Additional Poultry Ads on Page 274

Biggest Hatches Strongest Chicks

That's what you'll get with my Belle City Hatching Outfit. My Free Book "Hatching Facts" tells how—write for it.

Get into this profit-paying business now—you can't lose—it's money for you right from the start; early hatches pay best. Be independent—make all the profit by doing your own hatching the quickest, surest and easiest way with my

\$13.95 140-Egg Champion Belle City Incubator

With Fibre-Board Double-Walled Construction used for over seventeen years—Copper Hot-Water Tank—Self-Regulated Safety Lamp—Thermometer and Holder—Deep Chick Nursery—Egg Tester. \$7.95 buys 140-Chick Hot-Water, Double-Walled Belle City Brooder—Guaranteed to raise the chicks. You save \$1.95 ordering both together—a complete Hatching Outfit for only \$19.95

Express Prepaid East of Rockies

And allowed to points beyond. With this Guaranteed Hatching Outfit and my complete Guide Book for setting up and operating, your success is sure—vouched for by over 911,000 users. Save time—thousands order direct from my advertisements every year. Order now and easily share in my special

Prize Offers of \$1000 in Gold

Or write me today for Free Book, "Hatching Facts" and get all the particulars. It gives newest ideas, easiest plans and quickest ways to make poultry pay big. Jim Rohan, Pres.

Belle City Incubator Co.
Box 14 Racine, Wis.

BARGAINS Baby Chicks Hatching Eggs!

From "Pedigree" sired "cull'd" flocks of English and American SCW Leghorns. Flocks rated best in Mich. Bar'd Rocks. Free catalog OTTAWA FARMS, Grand Rapids Michigan

Free-Conkey's Poultry Book

86 pages chock full of information about the feeding and rearing of chicks, culling of hens, etc. Tells how to keep chickens healthy and how to make them pay. Whether a beginner or a professional, Conkey's Book is worth dollars to you. Sent for 6 cents in stamps to pay postage. THE G. E. CONKEY CO. 8514 Broadway, Cleveland, Ohio



Special Prices 21 Rose St.

OHIO FARMERS PREFER MICHIGAN POTATOES FOR SEED.

PITTING Ohio-grown potato seed against Michigan "northern-grown certified" last summer, seventy-nine farms in northeastern Ohio counties demonstrated an average increased yield of forty bushels to the acre favoring potatoes brought in from outside the state. In eighty-nine tests on these seventy-nine farms, ninety per cent of the local seed proved inferior as judged by yields, says Earl Jones, crops specialist of the Ohio State University, who has just compiled the results.



He Turned the Trick.

The counties concerned, and the average gain in bushels to the acre in each, are as follows: Wayne, 54 bushels; Columbiana, 59 bushels; Stark, 70 bushels; Ashtabula, 33 bushels; Lorain, 83 bushels; Geauga, 26 bushels; Trumbull, 43 bushels; Erie, 37 bushels; Cuyahoga, 43 bushels; Lake, 27 bushels.

Variations in yield increases are thought to be due to a widely varying quality in the home-grown tubers. Mr. Jones comments that, "there is room for improvement in the potato seed used in northeastern Ohio," and is of the opinion that, "with a more favorable season the northern-grown certified seed would have shown greater gains in Lake and the surrounding counties."

WOULD INSURE CROPS.

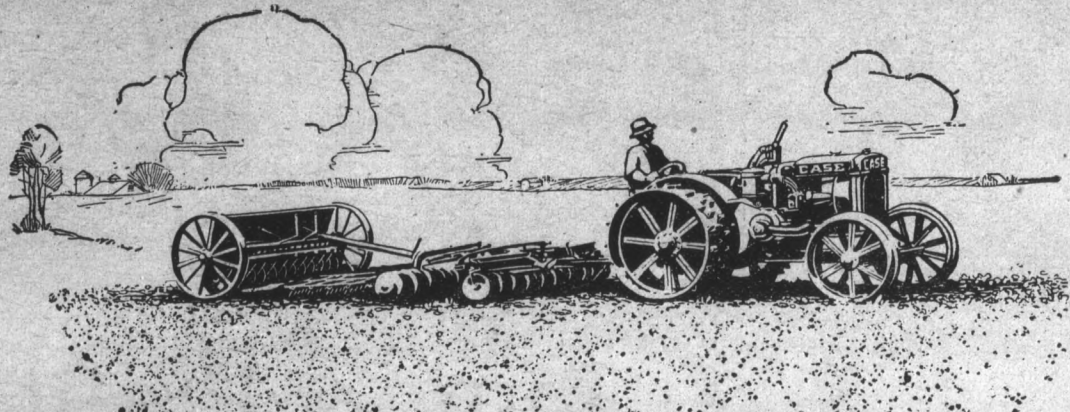
A BILL has been introduced into congress by Representative King, of Illinois, calling for the establishment of a farm crop insurance bureau which would insure growing crops of non-perishable products against loss or damage resulting from adverse weather conditions. This bill somewhat antedates action suggested by the administration's National Agricultural Conference, which advocated that a thorough study be made of the feasibility of a federal crop insurance agency and recommended that data be secured upon which to base premium rates, etc.

Crop insurance has been written for a few years by a few agencies. A federal crop insurance agency anticipates the insurance of crops over possibly the entire United States. It is rather generally admitted that there is not sufficient data upon which safely to determine the amount of premiums necessary to insure the success of any crop insurance venture which would extend over a vast area and include a large number of crops.

MILKING MACHINES IMPROVE QUALITY OF MILK.

CERTIFIED milk is being produced with milking machines, and also market milk of a good grade, under ordinary farm conditions. There is no short cut, however, to cleanliness; and neglected machines will not draw clean milk. To attain this objective, machines must be thoroughly washed and sterilized. The milking machine is sure to play a larger part in the economics of dairying. For this reason it is important that care be taken in sanitation, so that nothing will impede its development.

American farm crops were worth six billion dollars in 1921. This was three and a half billion dollars below the figure for 1920.



Usefulness

Is lack of power preventing you from farming more land?

Are your crop yields limited by shallow plowing, or by seed beds prepared improperly or too late?

Will the spring work leave you tired out and dissatisfied this year because of the slow progress you made?

You can overcome all these limitations, and the losses they cause, by the purchase of a Case Tractor now. You can realize a profitable return on its dependable power and ability to do all your heavy work.

Case Tractor Sizes; 10-18, 15-27, 22-40.

One of these sizes will meet the power requirements of your farm. The 10-18 will plow from 6 to 9 acres a day and perform other work at a corresponding rate. The 15-27 will perform the same operations about fifty per cent faster. If your field or belt work demand greater power, the 22-40 will best meet your requirements.

Because of its greater efficiency, the largest tractor you can use advantageously will prove the most profitable.

Power.

Case heavy duty kerosene engines are noted for their power, flexibility and economy. Case Tractors have demonstrated remarkable economy and efficiency by winning the majority of all important tests in which they have been entered.

Ample reserve power has been provided to meet all emergencies with recommended loads. An even flow of power from flexible, Case four cylinder, valve in head engines is always ready for light or heavy pulls. The sure acting governor automatically maintains correct field or belt speeds. With the two speed transmission

it is possible to get maximum results from the various implements used. A well designed drawbar of proper height and with a wide range of adjustment makes the correct hitching of plows and other tools easy.

Belt Work.

Belt operations are often the most profitable work of a tractor, and, on the average, make up more than a quarter of its entire work. On Case Tractors the belt pulley is mounted on the engine crankshaft where the full power of the engine is available for belt work. Being directly in front of the operator it is easy to line up with the driven machine. This feature saves hours of time in a busy season.

General Purpose Tractors.

All three sizes of Case Tractors are adapted to road hauling, grading, and all field operations by reason of correct weight, proper weight distribution, and effective traction speeds.

The requirements of actual farm work determined the essentials of Case Tractor design and construction. That is why the Case is so well adapted to all kinds of drawbar and belt work—so useful to farmers.

Call on the nearest Case dealer for complete information about Case Kerosene Tractors, Threshers, Silo Fillers, Baling Presses, Road Machines, Grand Detour Plows and Disk Harrows, or address a postcard to



J. I. CASE THRESHING MACHINE COMPANY
DEPT. Q16 RACINE WIS.



NOTE — We want the public to know that our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Co.

THE AUTO-OILED AERMOTOR

A Real Self-Oiling Windmill

Oil an Aermotor once a year and it is always oiled. Every moving part is completely and fully oiled. A constant stream of oil flows on every bearing. The shafts run in oil. The double gears run in oil in a tightly enclosed gear case. Friction and wear are practically eliminated.

Any windmill which does not have the gears running in oil is only half oiled. A modern windmill, like a modern automobile, must have its gears enclosed and run in oil. Dry gears, exposed to dust, wear rapidly. Dry bearings and dry gears cause friction and loss of power. The Aermotor pumps in the lightest breeze because it is correctly designed and well oiled. To get everlasting windmill satisfaction, buy the Aermotor.

Write today for Circular. **AERMOTOR CO.** Chicago Des Moines Kansas City Minneapolis Oakland



GOOD SEEDS

Grown From Select Stock — None Better—52 years selling good seeds to satisfied customers. Prices below all others. Extra lot free in all orders I fill. **Big free catalogue** has over 700 pictures of vegetables and flowers. Send your and neighbors' addresses. **R. H. SHUMWAY, Rockford, Ill.**

TREES & PLANTS THAT GROW

CATALOG FREE

Great Bargains, Standard Varieties, Best Quality, Low Prices. Satisfaction or money refunded. 60 years in business proof of our responsibility. Write for catalog now. **PETER BOHLENDER & SONS** Spring Hill Nurseries, Tippecanoe City (Miami County) Ohio

OATS "Burt's Heavyweight" Test 38 lbs. per bu. Also Early SEED CORN. Get our low price, samples and catalogue. **THEO. BURT & SONS, Melrose, Ohio**



America's Pioneer Dog Medicines

BOOK ON DOG DISEASES And How to Feed

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H. CLAY GLOVER CO., Inc., 129 West 24th Street, New York

If Your Dealer does not handle

LE ROY PLOWS

Write LeRoy Plow Co., LeRoy, N.Y.

Learn Auctioneering

Original and World's Greatest School. Write for free catalog. **JONES NAT'L SCHOOL OF AUCTIONEERING,** 28 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

Agricultural Lime High calcium hydrate lime in 50 lb. paper bags, in car lots of 20 tons or more. Delivered, price promptly mailed on request. **Northern Lime & Stone Co., Petoskey, Mich.**

A METHOD OF CROP PLANTING BASED UPON PRODUCTION.

FOR some time I have had in mind a system of crop planting which has worked out very well with me, and which, I believe, would tend to eliminate extremes in crop production.

This system is based on the yield the preceding year. With potatoes it would work out as follows, where your normal full crop planting is one hundred bushels: When potatoes are \$1.00 per bushel plant twenty-five bushels. When they are fifty cents per bushel plant fifty bushels. And when they are twenty-five cents a bushel plant one hundred bushels.

Or, in other words, when there is a full crop plant your full quota of potatoes. When the crop is a fifty per cent one then plant one-half of your usual planting of potatoes. And when the yield is one-quarter of normal just plant one-quarter the usual amount the next year.

The common tendency is to plant a small amount after a heavy crop, and low price year. This will mean small production and high prices the next year. With this method of basing the planting upon the production of the previous year, the tendency will be to equalize crop production and stabilize prices. Even if not universally practiced, the individual who uses it will profit through it.

The plan can be applied to most any farm crop. As for instance, when seeding is cheap it is advisable to put in meadows.—N. A. CROUT, Gladwin Co.

ANOTHER NEW WRINKLE.

MEMBERS of a local live stock shipping association in Indiana have solved the problem of having fat hogs on hand just when they are wanted for meeting home demands. It frequently happened that members who do their home butchering, often found themselves with hogs ready for market or slaughter before the farmers were in a position to do the butchering. Now under these conditions they ship their hogs to market through the association when the hogs are ready, and later when these farmers are prepared to do their butchering they buy the desired number of hogs from the association on the regular shipping day. They purchase these hogs for the net market price returned to the members who contributed the hogs to the shipment.

TEST VALUES OF ALFALFA.

AN interesting experiment has been conducted at the Wisconsin Experiment Station. The object of the work was to determine what differences, if any, could be found between alfalfa seed grown in different sections of the country.

After four years of work the results are reported as follows: Seed from Montana and South Dakota leads in hardiness and permanency of good stands. Seed from Kansas is a close third, while that secured from New Mexico and Arizona fields proved very susceptible to winter injury, which resulted in a high percentage of poor stands and gave way before bluegrass encroachment. The common seed from the states of Utah and Idaho seemed somewhat less desirable than that from Kansas.

While the trials indicate considerable variation of common strains within a given state, some showing greater hardiness than others, the average common South Dakota grown seed appears the equal in practically every respect to the more popular Montana strains.

"To business that we love we rise betime,
And go to't with delight."
—Shakespeare.



Farm for Profit in 1922

THE year 1921 did not entangle itself in the heartstrings of the American farmer. It went out under a cloud and he shed no tears. Yet this cloud, like so many of the clouds in life, had its silver lining.

The agricultural ills and ailments of 1921 brought with them their own remedies. At Washington today the governmental forces, wide awake to the vital co-relation of farm and industrial welfare, are fortifying the weak places in the business of farming. The farm public has created a hundred active, vigorous movements, many of them now bearing fruit. Freight reductions, better financing and better marketing conditions, lower labor and equipment costs, legislation tending to higher farm product prices—items like these build up the optimistic outlook for the summer ahead.

For you, the individual farmer, all the factors in the situation center of course on your own acres. In so far as you are a believer in the inevitable return swing of a pendulum, you will apply your best knowledge and the most efficient and modern equipment to make your fields produce bumper crops.

As you come to the spring season you will probably discover the need of one or more new machines and we want to call your attention to the standard popular equipment that makes up the McCormick-Deering Line, sold by a good dealer in your community. For reliable machines and equipment, repairs, and ever-ready service, consider the McCormick-Deering Dealer fully qualified to serve you.

These McCormick-Deering Products are in Demand at this Time of Year:

- Tractors
 - Titan 10-20
 - International 8-16
 - International 15-30
- Plows—Tractor and Horse
- Disk Harrows
- Spring and Peg Harrows
- Culti-Packers
- Drills, Seeders, and Alfalfa Drills
- Fertilizer and Lime Sowers
- Corn Planters
- Corn Cultivators
- Beet Seeders
- Listers
- Engines
- Cream Separators
- Manure Spreaders
- Motor Trucks
- Twine
- Repairs

The McCormick-Deering Dealer Offers You Standard Tractors and the Best-known, Most-complete Line of Tractor-operated Equipment on the Market.

INTERNATIONAL HARVESTER COMPANY

CHICAGO OF AMERICA USA
(INCORPORATED)
 92 Branch Houses and 15,000 Dealers in the United States

CITIZENS' MUTUAL AUTO INSURANCE CO.
 HOWELL, MICH.

Figures taken from Annual Statement Dec. 31, 1921

Claims and Losses Paid, 1921	
169 Fire.....	\$ 45,312.85
384 Theft.....	67,104.63
651 Liability.....	100,139.34
1,442 Collision.....	110,716.54
2,646	\$323,273.36
Total Claims and Losses to Date	
7,642, Amounting to Over.....	\$1,000,000.00
Assets, Dec. 31, 1921	
Cash in Banks.....	\$ 80,083.07
Capital.....	27,613.44
Salvage Department.....	8,535.60
Accounts Receivable.....	6,160.40
Office Equipment.....	15,000.00
Total.....	\$137,392.51
Policies Written and Renewed, 1921	40,268

Over 12000 people killed in 1921 by Automobiles in U. S. When you have a serious claim the Company will defend you. It has experienced Attorney and Adjusters. Insure before too late.

AUTO INSURANCE AT COST PLUS SAFETY



Don't be Stumped—
 Do it easily, quickly
 and at less cost with



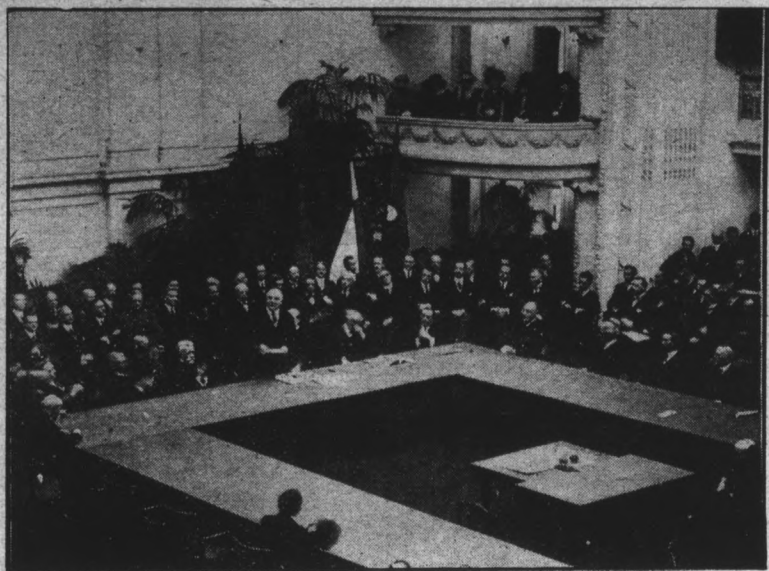
For stumpblasting, ditching, sub-soiling, tree planting, road making, swamp draining and many other purposes Gold Medal Dynamite is a most efficient and economical aid. See your dealer for reduced prices.

Write us for free booklet, "What Dynamite Will Do."

Illinois Powder Mfg. Co.
 1566 Pierce Bldg. St. Louis

Please Mention The Michigan Farmer When Writing to Advertisers

WORLD EVENTS IN PICTURES



President Harding gives his farewell message to the closing session of the Arms Conference at Washington.



This is the way the Manipuri dancing girls of Calcutta, India, dress when they dance before royalty.



Arthur T. Walden gives his dog-sled race-winning "dog musher" a treat.



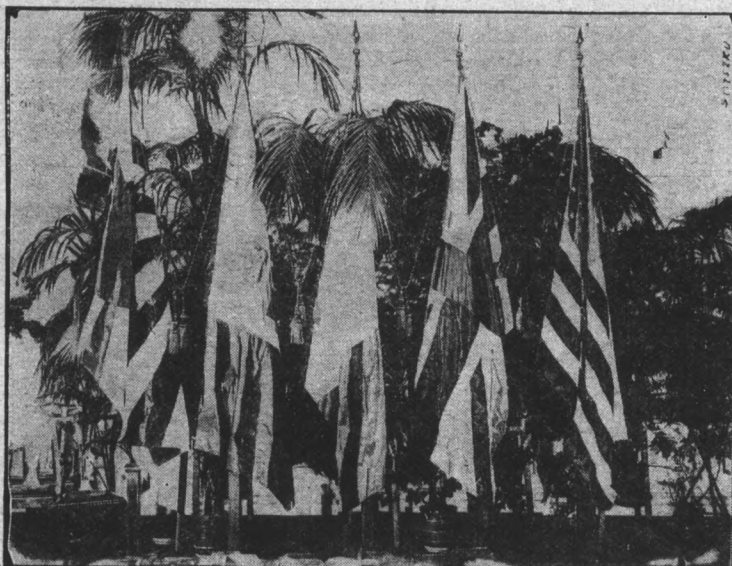
A real stunt when the thermometer registers five below.



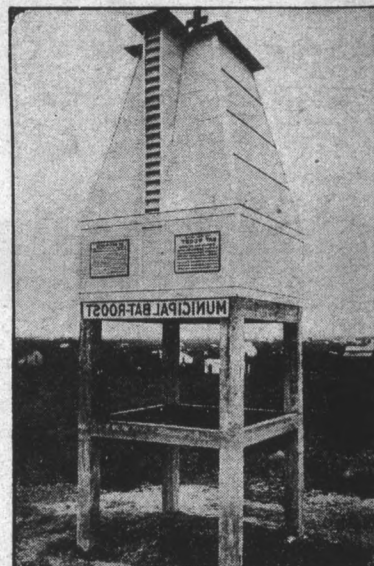
Good-looking girls and eggs are plentiful in the poultry-raising sections of California.



The O'Mally sisters hike and sell postcards to earn education.



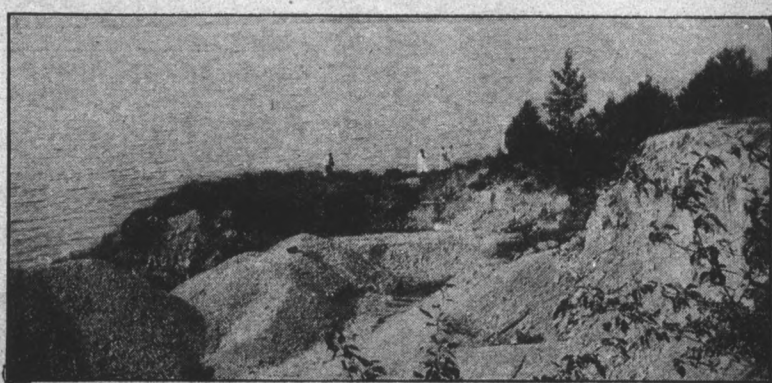
The flags of the five great powers are linked together in peace in the Continental Hall at Washington, D. C.



San Antonio, Texas, encourages bats to control mosquitoes.



The managers' homes on the great American-owned ranches in Mexico are both pretentious and comfortable.



Michigan has many state parks connected by good roads. This one is on Black Lake, near Onaway.

THE BLIND MAN'S EYES

By William MacHarg and Edwin Balmer

Copyright by Little Brown & Company

Harriet Santoine knew polo from watching many games, but she was aware that—as with any one who knows a game merely as a spectator—she was unacquainted with many of the finer points of play. Donald had played almost since a boy, he was a good, steady, though not a brilliant player. Had Donald recognized in Eaton something more than merely a good player trying to pretend ignorance of the game? The thought suddenly checked and startled her. For how many great polo players were there in America? Were there a hundred? Fifty? Twenty-five? She did not know; but she did know that there were so few of them that their names and many of the particulars of their lives were known to every follower of the sport.

She halted suddenly in her dressing, perplexed and troubled. Her father had sent Eaton to the country club with Avery; there Avery, plainly, had forced Eaton into the polo game. By her father's instructions? Clearly there seemed to have been purpose in what had been done, and purpose which had not been confided to herself either by her father or Avery. For how could they have suspected that Eaton would betray himself in the game unless they had also suspected that he had played polo before? To suspect that, they must at least have some theory as to who Eaton was. But her father had no such theory; he had been expending unavailingly, so far, every effort to ascertain Eaton's connections. So her thoughts led her only into deeper and greater perplexity, but with them came sudden—and unaccountable—resentment against Avery.

"Will you see what Mr. Avery is doing?" she said to the maid.

The girl went out and returned in a few moments. "He is with Mr. Santoine."

"Thank you."

At seven Harriet went in to dinner with her father. The blind man was now alone; he had been awaiting her, and they were served at once. All through the dinner she was nervous and moody; for she knew she was going to do something she had never done before: she was going to conceal something from her father. She told herself it was not really concealment, for Donald must have already told him. It was no more, then, than that she herself would not inform upon Eaton, but would leave that to Avery. So she told of Eaton's reception at the country club, and of his taking part in the polo practice and playing badly; but of her own impression that Eaton knew the game and her present conviction that Donald Avery had seen even more than that, she said nothing.

She watched her father's face, but she could see there no consciousness that she was omitting anything in her account.

An hour later, when after reading aloud to him for a time, he dismissed her, she hesitated before going.

"You've seen Donald?" she asked.

"Yes."

"What did he tell you?"

"The same as you have told, though not quite so fully."

She was outside the door and in the hall before realization came to her that her father's reply could mean only that Donald, like herself, had concealed his discovery of Eaton's ability to play polo. She turned back suddenly to re-



turn to her father; then again she hesitated, stopped with her hand upon the blind man's door by her recollection of Donald's enmity to Eaton. Why Donald had not told, she could not imagine; the only conclusion she could reach was that Donald's silence in some way menaced Eaton; for—suddenly now—it came to her what this must mean to Eaton. All that Eaton had been so careful to hide regarding himself and his connections must be obtainable by Avery now. Why Eaton had played at all; why he had been afraid to refuse the invitation to play, she could not know; but sympathy and fear for him swept over her, as she comprehended that it was to Avery the betrayal had been made and that Avery, for some purpose of his own, was withholding this betrayal to make use of it as he saw fit.

She moved once more to return to her father; again she stopped; then, swiftly, she turned and went downstairs.

As she descended she saw in the lower hall the stenographer, Miss Davis, sitting waiting. There was no adequate reason for the girl's being there at that hour; she had come—she said, as she rose to greet Harriet—to learn whether she would be wanted the next day; she had already seen Mr. Avery, and he would not want her. Harriet, telling her she would not need her, offered to send a servant home with her, as the roads were dark. Miss Davis refused this and went out at once. Harriet, as the door was closed behind the girl, looked hurriedly about

for Avery. She did not find him, nor at first did she find Eaton either. She discovered him presently in the music-room with Blatchford. Blatchford at once excused himself, tired evidently of his task of watching over Eaton.

Harriet caught herself together and controlled herself to her usual manner. "What shall it be this evening, Mr. Eaton?" she asked. "Music? Billiards?"

"Billiards, if you like," he responded.

They went up to the billiard room, and for an hour played steadily; but her mind was not upon the game—nor, she saw, was his. Several times he looked at his watch; he seemed to her to be waiting. Finally, as they

ended a game, he put his cue back in the rack and faced her.

"Miss Santoine," he said, "I want to ask a favor."

"What is it?"

"I want to go out—unaccompanied."

"Why?"

"I wish to speak to a friend who will be waiting for me."

"How do you know?"

"He got word to me at the country club today. Excuse me—I did not mean to inform on Mr. Avery; he was really most vigilant. I believe he only made one slip."

"He was not the only one observing you."

"I suppose not. In fact, I was certain of it. However, I received a message which was undoubtedly authentic and had not been overseen."

"But you were not able to make reply."

"I was not able to receive all that was necessary."

She considered for a moment. "What do you want me to do?"

"Either because of my presence or because of what has happened—or perhaps normally—you have at least four men about the grounds, two of whom seem to be constantly on duty to observe any one who may approach."

"Or try to leave."

"Precisely."

"There are more than two."

"I was stating the minimum."

"Well?"

"I wish you to order them to let me pass and go to a place perhaps ten minutes' walk from here. If you do so,

I will return at the latest within half an hour" (he glanced at his watch)—"to be definite, before a quarter of eleven."

"Why should I do this?"

He came close to her and faced her. "What do you think of me now, Miss Santoine?"

"Why—"

"You are quite certain now, are you not, that I had nothing to do with the attack on your father—that is, in any other connection than that the attack might be meant for me. I denied yesterday that the men in the automobile meant to run me down; you did not accept that denial. I may as well admit to you that I know perfectly well they meant to kill me; the man on the train also mean to kill me. They are likely to try again to kill me."

"We recognize that too," she answered. "The men on watch about the house are warned to protect you as well as watch you."

"I appreciate that."

"But are they all you have to fear, Mr. Eaton?" She was thinking of Donald Avery.

He seemed to recognize what was in her mind; his eyes, as he gazed intently at her, clouded, then darkened still more with some succeeding thought. "No, not all."

"And it will aid you to—protect yourself if you see your friend to-night?"

"Yes."

"But why should not one of Father's men be with you?"

"Unless I were alone, my friend would not appear."

"I see."

He moved away from her, then came back; the importance to him of what he was asking was very plain to her—he was shaking nervously with it. "Miss Santoine," he said intently, "you do not think badly of me now. I do not have to doubt that; I can see it; you have wanted me to see it. I ask you to trust me for a few minutes to-night. I cannot tell you whom I wish to see or why, except that the man comes to do me a service and to endanger no one—except those trying to injure me."

She herself was trembling with her desire to help him, but recollection of her father held her back; then swiftly there came to her the thought of Gabriel Warden; because Warden had tried to help him—in some way and for some reason which she did not know—Warden had been killed. And feeling that in helping him there might be danger to herself, she suddenly and eagerly welcomed that danger, and made her decision.

"You'll promise, Mr. Eaton, not to try to—leave?"

AL ACRES—Tommy Has a Good Come-back.

—By Frank R. Lee



"Yes."

"Let us go out," she said.

She led the way downstairs and, in the hall, picked up a cape; he threw it over her shoulder and brought his overcoat and cap. But in his absorption he forgot to put them on until, as they went out into the garden together, she reminded him; then he put on the cap. The night was clear and cool, and no one but themselves seemed to be about the house.

"Which way do you want to go?" she asked.

He turned toward the forested acres of the grounds which ran down to a ravine at the bottom of which a little stream trickled toward the lake. As they approached the side of this ravine, a man appeared and investigated them. He recognized the girl's figure and halted.

"It's all right, Willis," she said.

"Yes, ma'am."

They passed the man and went down the path into the ravine and up the tiny valley. Eaton halted.

"Your man's just above there?" he asked her.

"Yes."

"He'll stay there?"

"Yes; or close by."

"Then you don't mind waiting here a few moments for me?"

"No," she said. "You will return here?"

"Yes," he said; and with that permission, he left her.

Both had spoken so low that the man above could not have heard; and Harriet now noticed that, as her companion hurried ahead, he went almost noiselessly. As he disappeared, the impulse to call him back almost controlled her; then she started to follow him; but she did not. She stood still, shivering a little now in the cold, and as she listened, she no longer heard his footsteps. What she had done was done; then just as she was telling herself that it must be many moments before she would know whether he was coming back, she heard him returning; at some little distance, he spoke her name so as not to frighten her. She knew at once it was he, but a change in the tone surprised her. She stepped forward to meet him.

"You found your friend?"

"Yes."

"What did he tell you?" Her hand caught his sleeve in an impulse of concern, but she tried to make it seem as though she grasped him to guide her through the trees of the ravine. "I mean what is wrong that you did not expect?"

She heard his breath come fast.

"Nothing," he denied.

"No; you must tell me!" Her hand was still on his arm.

"I cannot."

"Why can you not?"

"Why?"

"Can't you trust me?"

"Trust you!" he cried. He turned to her and seized her hands. "You ask me to—trust you!"

"Yes; I've trusted you. Can't you believe as much in me?"

"Believe in you, Miss Santoine." He crushed her fingers in his grasp. "Oh, my God, I wish I could!"

"You wish you could?" she echoed.

The tone of it struck her like a blow, and she tore her hands away. "What do you mean by that?"

He made no reply but stood staring at her through the dark. "We must go back," he said queerly. "You're cold."

She did not answer but started back up the path to the house. He seemed to have caught himself together against some impulse that stirred him strongly. "The man out there who saw us? He will report to your father, Miss Santoine?" he asked rather unsteadily.

"Reports for Father are first made to me."

"I see." He did not ask her what

(Continued on page 265).



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A Thoughtful Letter

Our Weekly Sermon—By N. A. McCune

THE following letter was received recently by the writer, which he will try to answer. It shows that the correspondent has read and thought considerably about the religious life. The letter follows:

"I am a reader of your weekly sermons and am interested in them because you kindly answer perplexing questions that confront those who want to believe the truth. The young lady was perfectly sincere in her inquiry concerning our human ancestry, also pertaining to the Bible itself. As you evidently entertain questions and do not publish names of those writing



to you, I desire to inform you that there are hosts of honest people in the same boat as this young lady concerning beliefs and creeds, who quietly welcome a candid discussion and do not desire any notoriety because of their opinions. There is none of us sure and none entirely right or wrong.

I note in the last sermon that you say, "if we do not believe the resurrection of Christ, we can hardly be Christians at all." Can reasonable ministers or churchmen blame those who have doubts that Jesus was divine, when we read in the gospels, 'My father is greater than I,' 'I can of mine own self do nothing,' 'The words that I speak unto you I speak not of myself, but the father that dwelleth in me, he doeth the works,' 'My meat is to do the will of Him that sent me,' 'Of that day and that hour knoweth no man, no, not the angels which are in heaven, but the Father,' 'There is none good but one, that is God,' 'I ascend unto my father and your father, to my God and your God.'

"If Jesus was Deity why did he not ask His disciples and others to pray unto Him? Did he not constantly pray to God, and teach his disciples to do so? Is it not true that the gospel of John is the authority for the claim that Jesus was God, and that His gospel is not included in the Synoptic Gospels? Do you believe that a man is a Christian and a good one, who believes and lives the Sermon on the Mount, who believes in what Jesus believed and acknowledges that we receive the highest revelation of God through Jesus, the most perfect human that ever lived? Is there not a divinity in all of us differing in degree? If Jesus claimed to be God, why is it that secular history of that day does not disclose that fact? If Jesus was resurrected the Jews certainly knew the fact. How could they deny it as they do? I will appreciate your reply through the Michigan Farmer, if my name is not used."

Before answering any of the above, it should be stated that it will be impossible to satisfy all of the readers of this periodical. There are readers of all shades of belief. Some are very strict and literalistic in their beliefs, others very liberal, while some, judging from letters received, are antagonistic to Christianity in any form. The replies given here are from the standpoint of modern liberal, evangelical Christianity. The best light from recent scholarship is recognized, in the interpretation of the Bible. If some readers disagree with the replies given, it is their privilege to do so. Frank expressions of religious difficulties will be welcomed, and the best help at the writer's command will be given to our readers.

WITH respect to the resurrection of Christ: "And if Christ be not risen, then is our preaching vain, and your faith also is vain. Yea, and we are found false witnesses of God; Because we have testified of God that He raised up Christ." I Cor. 15:14,15. The resurrection was firmly believed by the early Christians. For that they died, or suffered other forms of persecution. The thing that distinguished Christianity from other religions was this, that it had a God who had triumphed over death. The narratives of the morning of the resurrection in all the gospels have all the ear-marks of genuineness. There are many little touches that could not have been invented, if the story had been made up. Christ never rebuked those who honestly felt that there were difficulties in believing Him to be the Son of God. There are doubtless people now, like the writer of this letter, who have difficulty in believing that Jesus Christ was actually God—that He was (and is) Deity. But with patient reading I believe there is always a way to solve those doubts. One way is to study the individual cases in the gospels who did not believe at first, and later came to do so—i. e., Thomas, Nicodemus, etc.

The passages quoted to show that Christ was not divine are all taken from the gospel of John except two. Hence if it is all right to quote from that gospel passages which show the Son as subordinate to the Father, it is also all right to take other passages that show Him to be the equal of the Father; for instance: "I and my Father are one." "I have overcome the world." "I am the resurrection and the life." "Before Abraham was, I am." In Matthew occur the two wonderful statements, which could not have come from the lips of mortal man, found in Chapter 11, verse 27, and in 28:18. There are many more in the gospels to the same effect. As for His teaching his disciples to pray to Him, there was no need of his doing that. No sooner had he risen from the dead, than they began to do so. When He was confessed as the Son of God, He was pleased, and commended those who came to that conclusion. Matthew 16:16 and John 20:28,29.

THE statement that there "is a divinity in all of us, differing in degree," is no doubt true. But it is different from the divinity that existed in Christ, for in Him there is no trace of sin, no consciousness of ever needing to repent, of ever feeling sorry for anything, or of even regretting a decision. That is very different from the experience of any human who ever lived. As Theodore Parker, a Unitarian, put it: "The manliest of men, humane as a woman, pious and hopeful as a prayer, brave as man's most daring thought. For eighteen centuries he has led the world in morals and religion because he was the manliest man in it, and hence the most divine." Or as the great Philips Brooks states it, "He was the one sinless man in all history, and that alone makes Him the most saving fact the world has ever seen."

Yes, I should say that if a man lived and practiced the Sermon on the Mount he was a Christian. May the time hurry on when all business men and agriculturists and professional men will do just that. Why is not Jesus mentioned in the history of the time? Chiefly because the historian of those days dealt very largely with court affairs, kings, queens and nobility. Christ is referred to in Tacitus and Christians by Suetonius.

THE BLIND MAN'S EYES.

(Continued from page 263).
she was going to do; if he was assuming that her permission to exceed his set limits bound her not to report to her father, she did not accept that assumption, though she would not report to the blind man tonight, for she knew he must now be asleep. But she felt that Eaton was no longer thinking of this. As they entered the house and he helped her lay-off her cape, he suddenly faced her.

"We are in a strange relation to each other, Miss Santoine—stranger than you know," he said unevenly.

She waited for him to go on.

"We have talked sometimes of the likeness of the everyday life to war," he continued. "In war men and women sometimes do or countenance things they know to be evil because they believe that by means of them there is accomplished some greater good; in peace, in life, men—and women—sometimes do the same. When the time comes that you comprehend what our actual relation is, I—I want you to know that I understand that whatever you have done was done because you believe it might bring about the greater good. I—I have seen in you—in your father—only kindness, high honor, sympathy. If I did not know—"

She started, gazing at him; what he said had absolutely no meaning for her. "What is it that you know?"

He did not reply; his hand went out to hers, seized it, crushed it, and he started away. As he went up the stair—still, in his absorption, carrying his cap and overcoat—she stood staring after him in perplexity.

(Continued next week).

HOME AND LOVE.

BY L. M. THORNTON.

Because I like to sit at home
And hear the robins call and sing,
Or breathe the sweet the breezes bring,
I've grown to pity those who roam
And have no spot, however prest,
Where he can whisper, "Here I rest."

Because I like to hear the tone
That says I love you, needs no phrase
No spoken word, to cheer and praise
I pity those with none their own
Their very own to understand
The language of the eye and hand.

Because life has so much unrest,
Because for each the strife and stress,
God sends the humble home, to bless,
And loving hearts, His best bequest
Not gold nor pleasure, pomp nor gain
But Love that makes Life not in vain.

THE STEP-MOTHER.

BY WALTER SCOTT HASKELL.

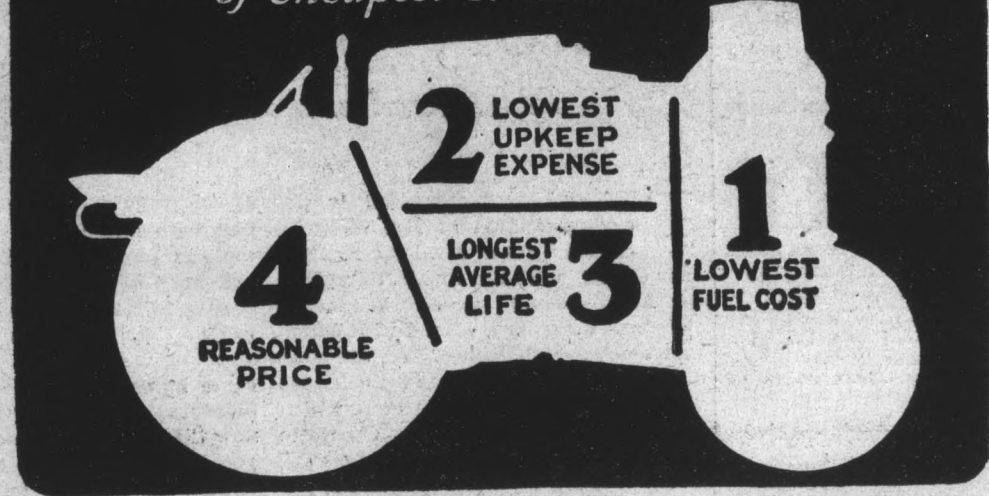
Ann Jemimy Dipple—
The lady's married name;
Husband was a cripple,
She loved him just the same.
He had a touch of gout,
Rheumatics in his head;
To get the trouble out,
Bill had to lie abed.

Jemimy set a hen,
With feathers all a-flounce;
Bull-dog got in the pen,
Poor Biddy "took the counts."
The eggs were in the nest,
As yet so warm and nice;
With biddy gone to rest
They'd soon be cold as ice.

Jemimy was no fool,
Though the ill winds had "blew,"
She took the matter cool,
And planned what she would do.
So, acting on the spur,
She took the eggs to Bill,
For it was up to her,
That nice warm bed to fill.

Bill warmed the eggs, oh, yes,
Though feathers he had none,
He knew his biz, I guess,
Just needed to be shown.
Two weeks—they came all right,
With mother Bill, and gout,
But, oh, that bed's a sight,
Where Bill hatched chickens out.

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Additional Farm Ads. on Page 265



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Our Boys' and Girls' Department

History of North Huron Pig Club

A Paper Read at the February North Huron Farmers' Club Meeting

By John Kilpatrick

THE club was organized in the spring of 1921 at Mr. Wenzels, on the farm of Mr. Frank Kinch, near Grindstone City, by Mr. Campbell, our former county agent. When the club was organized, Mrs. Isabel Kinch was elected club leader. At the next meeting in the Grindstone schoolhouse we elected officers for the club, which consisted of eight members, Charlotte Kinch, Ethel McDonald, Felix Goreski, Louis Wenzel, Murdock McDonald, Edward Meagher, Irwin Schubel and John Kilpatrick. Edward Meagher was elected president; Ethel McDonald, vice-president, Charlotte Kinch, secre-

oil for a few days after, and hopes we will help him again. The money we took in went to pay for the trucking and keep of our bunch of pigs at the county fair from August 1 to September 5. My pig did not win a prize at the fair, not even third. So when I came home I said, "Betsey, I am not discouraged, but disgusted, and from now till the end of the contest we have got to do something or bust; so we both went to work, I to feed her, and she to eat. I meant to win out ahead, if I could. At the end of the contest Irwin Schubel still held first place but I came in second, so I did not feel so

again. Murdock McDonald's took sick and died, but Murdock is going to have his father get him another from Mr. Dorman's stock farm to begin the next year's contest. So you see we still have seven members.

At the end of the pig contest on November 15, our club leader decided to keep things moving during the winter by having each member read a paper at each meeting of the North Huron Farmers' Club. I drew number one, so I had to write a story on "What the Pig Club Members Would be Doing and Where They Would be Twenty Years from Now." I read my story at Mr. Sam Wallace's on December 21. Ethel McDonald drew second place, she wrote a story on "Why a Girl Should Join the Pig Club." She read her paper at Miss Hall's on January 5. I believe it is Irwin Schubel's turn today. I don't know what the subject is, but you will hear.

While Mr. Wright was here hunting this fall, he attended the farmers' meeting and was rather interested in the pig club work, so he gave Mr. Kinch \$10 as a prize for some contest among the young people around here. The contest will be determined in the near future.

Now, if you are traveling down the line and get farther north than Bad Axe, someone is apt to ask you where you live. When you say Grindstone City they look and say, "What! that little jumping-off place at the end of the P. M. Line?" And you would think by the way they say it that it was really the end of the earth. But we are not as slow as we look. That is why we have the first pig club in Huron county.



Theodore Jarvinen Finds Persistently Keeping at it Wins Prizes.

tary; Felix Goreski, treasurer, for the year. From that time on we met with our club leader, Mrs. Kinch.

At our first meeting we decided on the O. I. C. breed. Mr. Dan Meagher and Mr. William McDonald with County Agent Campbell went to Snover and Marlette to buy the pigs. They were shipped to Grindstone City, to Mr. Frank Kinch, where each club member went, and we each drew a number and the number we drew matched the tag number on the pig. That little white pig was ours when we gave a note for \$16.96 for six months, and so we learned to give a note. I wonder how many men here today wishes he had never learned to sign a note. We got our pigs on June 10, 1921. My pig weighed forty-nine pounds. I called her Lady Elizabeth, Betsey for short, and I fed Betsey to see what I could do on a certain amount of feed. Each of the members were supposed to do the same.

We club members met with our club leader, Mrs. Kinch, at her home every two weeks. We had our business meetings, talked about best ways of doing things on the farm, what was the best feed for little pigs. What was the best feed for growing pigs, and many other things. Maybe we did not learn a great deal, but what we did hear did us no harm. When our meeting is over our club leader always has a treat ready for us. Lemonade and cake or coffee and sandwiches, sometimes bread and butter and jam. She even furnished bathing suits to some of us so we could go in bathing in old Lake Huron. We will always remember the first summer of our pig club.

During the summer when the members of the farm bureau held their picnic in Port Austin, and we club members had a stand on the picnic grounds selling lemonade, gingerale, ice cream, peanuts, chocolate bars, candy and anything and everything to give the kiddies the stomach ache. I bet Mr. Pittwood, our druggist, sold lots of castor

bad, as I had the smallest pig to start with.

During the year there has been some changes. One of our members, Louis Wenzel, has moved to Saginaw to live. I don't know whether his pig went in the pork barrel or not. I believe Charlotte Kinch's pig proved to be a poor type for a prize pig, so her mother took that one and bought Charlotte another for \$35. So Charlotte is set up

Get Ready for Bird Helpers

They'll Soon Be Back from the Sunny South

By Pauline R. Ward

FRAME this into every day of the year, "Birds Make Agriculture possible." By destroying insect pests they save crops worth millions of dollars every year. Every farmer who does not encourage and protect bird life on his farm is defrauding himself and his country. Birds serve farmers so well that every one of them could well afford to erect a monument to these unassuming and willing bird helpers.

In these days of tree repair work, and great demand for lumber, and wood for fuel purposes, birds have a time of it to locate nesting sites. Therefore, cavities in trees are not so often the home of bird families as in the past. We must provide nesting sites for them, and this can be done with a very small outlay. Anyone who is at all handy with tools can build a bird house. I would have farmers remember that many times the spring storms kill the early arrivals, and it is as necessary to provide shelter for them at this time, as in the winter; as well as such food as suet to help to keep them fit to combat the inclement weather. It is a trying time for the birds after spending the winter in the sunny south. They brave the elements for us, so that they will be north

in plenty of time to serve our needs.

Beef or mutton suet is a cheap way to reward these little workers, for their willing service to you. Tie the suet to tree trunks or branches, and also hang up bones, cracked, and meat scraps for the blue jay and crow. They



A Pair of Twins and One of a Set of Triplets on Farm of T. C. Sterns.

need part meat diet and this will also prevent these birds from preying upon the smaller birds.

During stormy weather sunflower seeds are appreciated. Under normal spring conditions birds can scurry about and secure ample food, but at any time a variation in diet is relished. They will be thankful for the bread crumbs which you may throw on your window sill, porch, or other places.

The Wood to Use for Bird Houses. Wood for bird houses should be the



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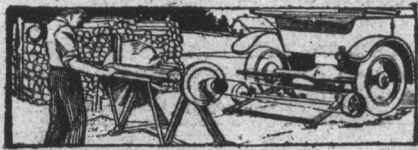
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non-heating kind, like yellow poplar, red cedar, sassafras, as well as red-wood and cypress. The best wood is cheapest if you want real results in the matter of aiding the birds to increase in number. Many young birds are smothered every season, because "any old kind of wood" proved fatal to them. If you paint the houses be sure to use good oil paint, as nearly all birds reject houses on which cheap paint was used. Do not use tin can houses. They are cruelty to bird life. During the warm part of the spring and early summer days they attract the sun's heat, and as a result the young are often smothered to death, or suffer intensely. The robin, phoebe, and sometimes the cardinal will accept the bird shelf; a mere platform, with a "roof," of course. Most birds prefer houses made from the limbs of trees. Trees felled by storms may be used. Birch and chestnut, as well as elm, are good to use for bird houses. The limbs may be cut in ten or twelve-inch lengths. About two or three inches from one end bore an entrance hole. On the opposite side make a lengthwise incision through the entire bark. Remove bark carefully with a wooden wedge. Then saw off a section of the wood, about an inch thick or more, from the bottom. Nail the bark to this section, letting it overlap a little, and close the slit at the back by nailing it to a narrow strip of wood. Some people recommend the use of tin for

Win a Dollar

HERE is an opportunity to win a dollar. The questions given below are answered in this issue of the Michigan Farmer. To each of the five boys or girls who send us all these answers and the page number on which each is found, in the neatest and best handwriting, we will give one dollar. Number answers to correspond with questions and mail to Educational Editor, Michigan Farmer, Detroit, by March 10. Watch for another list next week. The list for this week is:

1. What is the average yield per acre of alfalfa and other hay crops?
2. Which gives the most uniform yields from year to year, apple trees in sod mulch or those in cultivated land?
3. What is it that sliced oranges and sliced Spanish onions with French dressing furnishes?
4. What city is the largest forage market in the country?
5. Who said "he was the one sinless man in all history?"
6. What do southern cities find bats good for?

7. How long does the county wait before selling property for taxes? the roof, but if it is possible to get a very thin piece of wood for the roof, and to arrange it so that it may be easily removed to clean the house, it is much to be preferred, especially if you have to place it where the sun will beat on it.

Every farmer should encourage the martins to come to his place. If you will furnish them with a house they will do good work for you. They will accept a two-family house, or an apartment containing as many as fifty rooms. If you want to invite the martins to your farm put out your houses at once, for a martin "scout" will soon be coming to inspect your premises, as to whether you have housing facilities for his flock. He is apt to come as early as February. Old martin houses should be cleaned out, as well as painted. You will have to watch the English sparrow, for they will cause martins, as well as other birds, no end of trouble. I have found that if I did not destroy the English sparrow about my place, before the other birds arrived, that by a constant "chasing" of these intruders, they finally took the hint and stayed away. Martins are such good company for your children. If we aimed to give our children all the pets possible, farm life would prove much more interesting to them.



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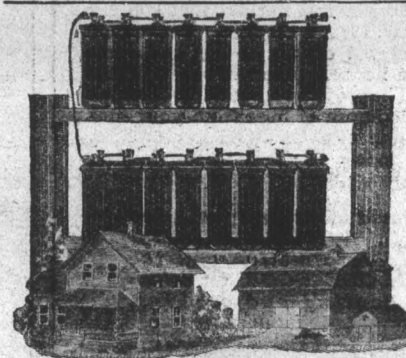
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Farms and Farm Lands

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Rio Grande Valley Texas, 40 acres irrigated land \$150 per acre for sale or trade. W. Lingenbrink, 1454 Pierce Bldg., St. Louis, Mo.

For Sale, Two new bungalows in city of Mt. Pleasant, price \$5000, terms given. Address JAMES S. BICKNELL, Clare, Mich.

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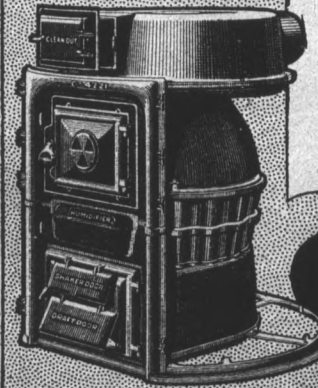
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Woman's Interests

Poorly Nourished Children

Some Suggestions on Child Feeding

By Hilda Richmond

DURING a recent inspection of school children by a trained nurse in a small city some startling facts were brought out about poorly nourished children. Many families with two or three children had not a pint of milk for the daily allowance for the whole family, while butter was rarely seen on the tables. These poor families aroused the sympathies of club and church ladies, who immediately took steps to supply the children with pure fresh milk daily, so that their poor little starved bodies might have a chance to develop to the standard of normal beings.

But among the poorly nourished youngsters were a number who had re-

same as if the butter were spread on bread and the cream used on cereal. Whipped cream sweetened and mixed lightly with warm tapioca or served with berries is relished by children who will tell you that they do not like milk. By calling it pudding sauce or salad dressing, the youngsters will eat cream and butter unhesitatingly and get all the benefits therefrom.

Children must have butter, milk, eggs, cream and fruits to thrive and to gain in weight and height. The farmer is alarmed when the pig or the lamb or the colt does not thrive, and immediately changes the feed and tries to discover the cause, but few families ever think to weigh the children and change their diet when they lack vigor. The common idea is to buy something in a bottle with which to dose them, when good food would accomplish the same or better results in less time and without injury to the stomach. A visit with the children to the family physician two or three times a year, and a heart to heart talk with him about the proper food would save many wrecked lives and many undertakers' bills. Be sure that your children are getting at least a quart of pure milk daily for each one, with butter thickly spread on good bread, and cream on cereals. Then you will see results just as you see results in feeding animals correctly. If it pays to study the needs of animals, and it does, it pays much better to study the proper diet for your children.



cently moved in from the country, and whose indignant parents had much to say that was unkind and impolite in regard to the reports of the nurse. But when they took the children to the family physician the verdict was the same. Under weight, poorly equipped to resist disease, under size and not normal physically because of lack of proper food. Then it came out that the children "hated" milk and would not touch butter. They ate greedily of meat, white bread and potatoes but used little fruit and eggs. The parents trusting to time to bring them out all right had not attempted to force them to eat wholesome things; indeed, they hardly knew what children should eat. Yet the man could talk intelligently on balanced rations for pigs and sheep and horses, and his wife could raise chickens better than most of her neighbors, as she proudly informed folks. They knew how to feed for pork and lambs and eggs, but they did not know what was good for children.

With many children it is a whim that they will not touch milk, and often economical parents rejoice when the larger amount of whole milk or cream or butter goes to market because the children do not care for it. But those who are informed as to the needs of growing boys and girls disguise the milk so that the boys and girls get enough each day while thinking they dislike it. In milk soups, gravies, custards, ice cream, puddings and bread the life giving elements are introduced and the boys and girls eat them unknowingly. To be sure, fresh, sweet milk uncooked is better than milk boiled, but by going at the thing gradually it is easy to inculcate a liking for milk and cream and butter. Take mashed potato, for example, Fresh sweet cream and butter can be beaten into the mashed potato without the long boiling that milk gets in gravy, and the effect is almost the

SWEET TASTING POTATOES.

POTATOES with a sweet taste at this time of the year when brought from the root cellar and cooked, have been kept at too low a temperature. Potatoes stored at near the freezing point will develop this taste, which is objectionable to some people. If the potatoes are brought into a warm room for a few days before being used they will lose this sweet taste. For seed purposes, potatoes stored under such conditions are as good as any; the development of the sweet taste is not objectionable from the seed standpoint.

HOT LUNCH CLUBS IN CLOVERLAND.

NEARLY half the schools of Iron county have arranged to provide pupils with hot lunches, it is stated. The work is so planned that it is done



mainly by the children. By this arrangement the children get a hot dish of some sort or other to supplement the food brought in their lunch baskets from home. It may be a cup of hot cocoa, a bowl of hot soup, a hot pudding, or a spoonful of hot potatoes. The school boards furnish the equipment, says the Daily Reporter, of Iron River, the cost of which runs at about \$25 for simple outfits. The club gives a food shower to stock their cupboard with staples, while the pupils bring other materials as needed.—C.

A good old Friend

Remember the good old-fashioned mustard plaster grandma used to pin around your neck when you had a cold or a sore throat?

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Lessons In Health Culture

4—The Specific Value of Foods

By Ruth Selby

I SHALL endeavor to give in this article something of the special value of most of the generally used articles of food that go on our tables.

As I said in my last article, on "Eating and Drinking," foods are divided into several classes (major classes, we may call them), yet each article in each class possesses value besides that for which it is specially classed. All proteids contain other elements besides protein; carbohydrates, some protein and other things, and so on with the others. The human body is composed of about fifteen different chemical elements and all of these are found in the various foods we eat, in different proportions, many of them having medicinal value. So, in order to supply our bodies' individual needs, it is necessary to know something of the composition of foods so that we may know what to freely eat and what to avoid. All foods are good but all are not good for all people at all times. For instance, those who are pale and thin-blooded need more iron in their systems and this is easily absorbed from the following foods which should be partaken of freely: Spinach, which contains thirty-three to thirty-nine per cent of iron; asparagus comes next in value with twenty per cent; then beef, egg yolks, cabbage (the outer green leaves), dandelion leaves, apples, hazelnuts, red cherries, almonds, strawberries, carrots, black cherries, beans, potatoes. Quite a list to select from, and I name them as they stand for their iron value. There are other foods that contain some iron, but much smaller per cent. The thin-blooded should also eat freely of the carbohydrates and such fats as agree with them. All good food makes good blood when we eat sufficiently but not too much, and when we exercise and breathe properly. And good blood builds the body and those muscles most used. The same food also builds and strengthens the brain if it is wholesomely exercised.

I give below a list of our common foods and for what special value they are:

Cheese, made of whole milk, contains nearly all of the nutrients of milk except the milk sugar, so is a highly concentrated and valuable food, but should be eaten in small quantities and well masticated. Not chewing it properly is why it disagrees with many people.

Nuts are also highly concentrated food and more nutritious than most meats; for which they can be well substituted but should be eaten in smaller quantities. The oil of nuts is also more wholesome than animal fats.

Eggs, like milk, is almost a perfect diet and consumptives sometimes subsist almost entirely on them, eating from ten to eighteen or twenty a day. They usually take them raw, sometimes lightly beaten with a little salt or sugar to make them palatable.

Fish, though classed with meats has so much refuse and the flesh contains so much water that it is less valuable than most ordinary meats. The idea that fish is a brain food is erroneous, for there is nothing in its composition that is more brain-building than in other foods. At any rate it has never yet been found that fish-eaters are brainier than other people.

Of grains, wheat stands first for nutritive value. But when the husk and outer portions are removed some of the most valuable of the grain is lost. The bran has wonderful laxative principle.

Corn and oats come next in value. The latter (oatmeal) is excellent for building material. Rice comes next,

but is rather more fattening than other grains. All grain food and foods of a starchy nature should be thoroughly masticated or they may cause indigestion.

Vegetables of some kind should be eaten the year round, and when country people, who have not access to markets, understand more of the value of vegetables, the kitchen garden will cease to be so much neglected. In summer especially no dinner is complete without one or two green vegetables. And the profusion of these and fruits of all kinds which nature provides shows that these things are necessary to health.

The heavier vegetables, such as cabbage, beans, sweet potatoes, are more suited to our winter diet. Yet even then we have some green vegetables, as spinach, celery.

Lettuce is especially a summer vegetable as it is cooling to the blood. It is also good for the nerves and helps to produce sleep, containing as it does a small per cent of opium.

Onions also produce sleep. I consider them really a wonderful remedy for insomnia, eaten raw or cooked in any way preferred. They are also one of the best nervines known and fine for coughs and colds.

Celery is another nerve food and also beneficial to those who have nervous dyspepsia, neuralgia and rheumatism.

Tomatoes are a good stimulus for the liver, containing vegetable calomel. But those subject to rheumatism should avoid them as well as acid fruits and acids of all kinds.

Apples excite the action of the liver, and the kidney secretions, and sometimes relieve indigestion. They contain more phosphoric acid in an easily digested form than any other fruit.

Blackberries are excellent for diarrhoea in allaying inflammation. Pears have a laxative effect owing to the woody particles they contain.

Peaches are one of the most wholesome fruits and the banana, in spite of being tabooed by many doctors, is a harmless and nutritious food.

Acid fruit (a little) before meals aid digestion and improve the complexion and all vegetables that agree with one are beneficial to the complexion.

Condiments occupy an important place in seasoning. They render food palatable and so excite and increase the gastric juice, thus they aid digestion; too freely used, however, they are injurious.

Some bad combinations of food are: Milk and vegetables. Milk and meat. Fruit and cooked vegetables. Fish and sweets.

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The Pathfinders

Some Spoiled Kids

By Alta L. Littell

A WHIRL of emotions enveloped Milly as Father Allen left the house after admitting he had opened a letter to her bankers which she had entrusted to Tommy to mail. Contempt for a spirit which could stoop to such an act yielded to admiration for his manly admission of guilt and refusal to excuse himself in any way. Then this was swept away in a warm feeling of joy that little Tom had been vindicated. The cloud which had been bothering her for days had vanished, and she could have danced for delight, but that underneath this exuberance lay a disquieting thought.

She had regarded Father Allen with a great deal of contempt when he admitted his guilt, quite looked down upon him from the heights of her own unassailable honor. That anyone with whom she was even remotely connected should open another's mail hurt her pride. But a bothersome something deep down underneath kept asking if, after all, Father Allen by his apology hadn't proved himself a better man than she. She angrily insisted that she wouldn't stoop to such a mean trick, but still the Something persisted. At least Father Allen had apologized, it hinted. When he had done wrong he didn't stiffen his spine and refuse to admit it until someone coaxed him to square things. Of course, she wouldn't open a letter, but there were other things for which one should make amends.

She tried to quiet the hubub by going over again the scene with Father Allen. How miching he had looked when he came in, and how his whole bearing had changed when he arose to the occasion and made a clean breast of it. He actually seemed to grow bigger physically. She knew he'd be big-

ger spiritually from that time forward. The inner Something arose to inquire how she thought her spiritual stature was going to react. It certainly took courage to admit a fault.

There was no use trying to evade the issue, she might as well take herself to account. She hadn't been square with Bob when she went ahead and planned to start a poultry business without consulting him, but to date she had refused to admit to him that she was in the wrong. She prided herself on being the soul of honor, always ready to admit a fault, but here she was holding out for Bob to say he was sorry for acting like a bear about it. She wasn't such a big, broad-minded person after all, just a pettish small child, waiting to be coaxed into being good. There was but one way to reinstate herself in her own good graces, and that was to apologize to Bob.

Arrived at this conclusion she ran down cellar after cream and butter. Bob would soon be in to supper. When she came back he was at the wash-bench cleaning up. It was now or never, disagreeable things were always better behind you, so she took the plunge.

"I was wrong," she began heroically, then stopped astonished, for Bob was saying the same words.

Both paused and flushed, then laughed and drew together.

"We've both been acting like spoiled kids," Bob finished, "and I suppose the only thing to do is to kiss and make up."

"That's the nicest way to apologize, I'll admit," Milly answered, as she wriggled out of his arms to rescue the scorching bacon.

BUY BY WEEK TO INSURE A BALANCED RATION.

DO you know how to substitute economical foods in your menus without changing them nutritionally?

When meat is thirty cents a pound and cheese forty cents, which would be really cheaper?

Do you know how to compare the food needs of your family of four, or perhaps seven, persons with the "average" family of five?

How many hundred-calorie portions do you get in a pound of each kind of common foods you buy?

Wouldn't the family diet be more nearly correct if you knew?

Have you ever kept a household food account book?

Questions like these are brought up and answered for the housekeeper in a clear and simple way in Farmers' Bulletin 1228, "A Week's Food for the Entire Family," which may be had free by addressing the United States Department of Agriculture, Washington, D. C. This bulletin, prepared by Caroline L. Hunt, of the Office of Home Economics of the States Relations Service, deals with food selection and meal planning.

HOT DISH AT NOON AIDS SCHOLARSHIP.

THE school lunch is essentially a problem of rural schools and as such is of interest to members of the farm bureau," says Lucy Cordiner, nutrition specialist of the University of Minnesota. "Those schools which serve a hot soup, stew or other simple dish which augments the lunch brought from home show a higher scholarship, better attendance because there is less illness, and closer cooperation between pupils and teacher. There

are fewer cases of discipline and children are less nervous and are much happier.

"How did you like the half-frozen lunch you used to eat at school? Carried most of it home, didn't you? The children of today do the same.

"Children need three good meals daily. They need them more than do grown-ups. A cold noon lunch is not a proper meal on a winter day for either children or adults. Research has shown that efficiency deteriorates if the cold lunch is long continued. Up-to-date manufacturers have provided lunch rooms where hot food may be purchased by their employes; many merchants have done the same. They say emphatically they would not return to the old order of things. Why should the rural one-room school not provide the best facilities for the children attending? Give every child a hot food every day at noon."

WINTER SALADS FURNISH VARIETY AND VITAMINES.

HERE are a few suggestions for simple salads that the family will greatly enjoy:

Sliced oranges and sliced Spanish onions served with French dressing.

Cauliflower cut up in small pieces and served with peanuts or any other kind of nuts and thousand island dressing.

Cabbage chopped fine and served with nuts and mayonnaise dressing makes an inexpensive and tasty salad.

Raw carrots ground through a meat grinder and served with either nuts, peas, or tuna fish, and mayonnaise dressing make a delicious and a pretty salad.

Spinach cooked and served with cheese and French dressing is another possible combination.—U. of W.

FRUIT GROWING ON THE UPPER TREND.

(Continued from page 245).
ably more than seventy-five per cent of Michigan's orchards will pay very large dividends on a little money properly invested in fertilizers to be applied about the trees. The amount of commercial fertilizers applied to Michigan orchards in 1919, or even in 1920, was almost negligible compared to the immensity of the industry, but we are informed that more than 500 tons of sulphate of ammonia and nitrate of soda were purchased previous to February 15 for application to Michigan orchards in 1922. Fertilization has spelled the difference between a small profit and a comfortable one during the past year of high prices, in spite of the fact that yields as a whole could be classed as only fair. These examples, in practically every fruit tree section of the state, and with all kinds of orchard fruits, have thrown a new light upon fruit production and intensified the industry.

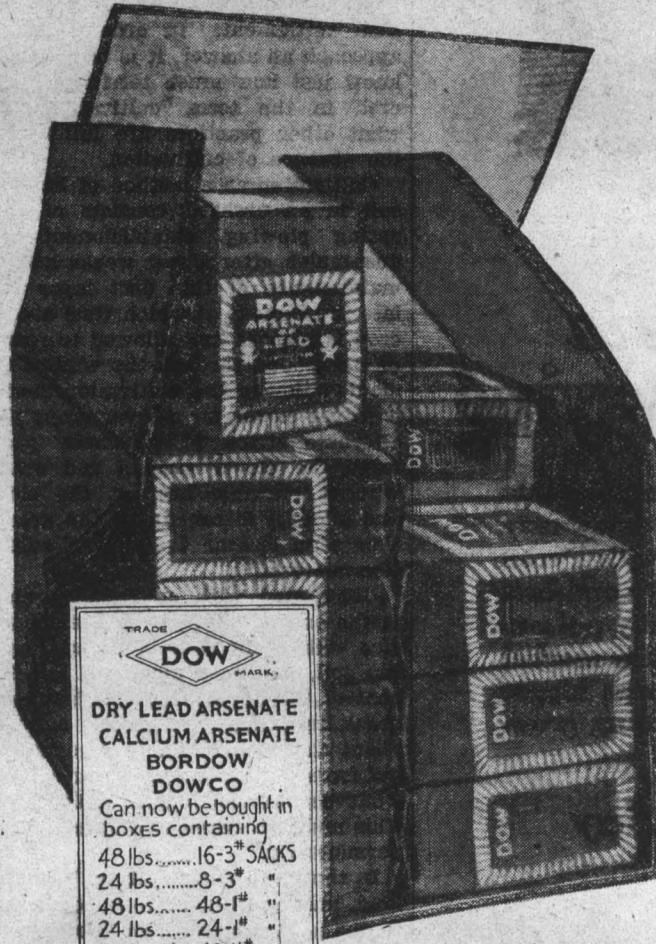
The grape industry passed through a depression a few years ago during which time many growers were compelled to give up the business. Times became better for the industry and in 1918 and 1919 growers received prices of \$75 and \$80 per ton and in 1920 reached an average price of \$115 and \$120 per ton. Prices were not as good in 1921 as in 1920 but they enabled the average grower to make a fair profit in spite of the low yields caused by the freezes and frosts of last spring. These prices have greatly stimulated the grape industry and consequently plantings of grapes are being made as fast as the plants can be grown by a small army of experienced as well as inexperienced nurserymen. Perhaps the thing is being overdone and we may look for the tide to turn, but a discussion of such is not within the province of this article. Owners of bearing vineyards have shown a keen desire to make their vineyards produce the limit in the way of yields, consistent with economical cost of production. Consequently if one wishes to start an interesting discussion with farmers in southwestern Michigan, a suitable subject would be "grapes."

A few of the more progressive fruit growers are interested in peaches but the outlook for peach growing justifies more interest than is being manifested at present. The commercial acreage of peaches is rapidly decreasing in all states east of the Rocky Mountains, except New Jersey and Georgia, and these states do not offer serious competition to Michigan growers. Certainly the planting of peaches in Michigan is one of the best bets in the fruit game today, provided favorable sites are selected.

Information from nurserymen indicates that apples are being planted very extensively this season. But perhaps the most interesting development is the interest the general farmers are taking in the small apple orchards—those of two or three to five acres in extent. In one of the best general farming sections of the state, more than 100,000 barrels of apples were shipped this past season by the farm bureau. None of this fruit was contributed by large, specialized or commercial orchardists. Many of these farmers made more money from their small orchard than from the remaining portions of their farms and this in spite of the fact that they had given their orchards no special, or even standard, treatments and that much of the fruit would have returned double the amounts had the trees been properly sprayed. In another section of the state several farmers received gross returns of from \$1,600 to \$3,000 from four to six acre apple orchards, the buyers coming to the farms and hauling the fruit away in cars and

(Continued on page 273).

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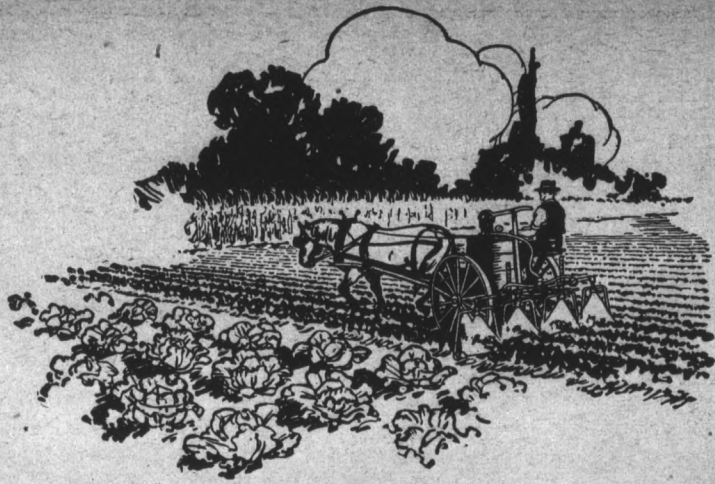
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Shall We Cultivate Orchards?

The Pro and Con on this Subject

By E. A. Kirkpatrick

THIS question can not be answered definitely with "yes" or "no" and laid away on the shelf as a final settlement. In order, even, to approach an answer, it is necessary to know just how much territory is covered in the term "cultivation," and what other practices are followed in the absence of cultivation.

Cultivation as a method of handling soil in an orchard consists of early spring plowing, establishment of a dust-mulch after a few weeks and the maintenance of this dust layer until late in summer, at which time a cover crop is planted and allowed to remain on the ground through the winter. One modification of the cultivation method is to use clover for a cover crop; plow alternate strips in alternate years, leave the clover strip a full season without plowing, but cut the clover and allow it to remain on the ground. This plan lessens the cost of cultivation materially.

Contrasted with cultivated orchard is the one left in sod. Sod-mulch carries with it the idea of no stirring of the soil, but, as a means of moisture control, the application of a blanket of grass, hay, straw, or similar material, about the base of the tree, extending out from the trunk to a distance somewhat beyond the length of the limbs. This mulch is renewed and maintained permanently.

In the east, particularly in New England, many orchards are in sod. Hence it was a surprise to hear Professor H. P. Sweetsler, Maine Experiment Station, advise Maine fruit growers as follows, at Farmers' Week at year ago last winter:

"The best results are obtained in most cases from use of cultivation although in some conditions it may be possible to use the sod-mulch with success. The cost of the two methods do not differ very materially." Professor Sweetsler tells the advantages of clean cultivation and sod-mulch thus:

"The advantages of cultivation are, in brief: It increases aeration of soil; increases the moisture content during July; starts growth early in spring; makes it possible actually to control

moisture in fall. The disadvantages are: It is more expensive; it makes the ground soft at spraying time in some seasons; it breaks roots.

"In sod-mulching the advantages are: Solid ground for spraying; windfalls are not so badly bruised; cheaper on rough and hilly land; prevents washing. Its disadvantages are: Danger of damage to trees in case of fire; more danger from mice; moisture lacking; wet season in fall, moisture excessive."

That the foregoing advice regarding clean cultivation is sound, is evident from ten years of experimental work with a mature orchard of Baldwins at the New Hampshire Experiment Station. Clean cultivation, sod mulch, clean cultivation with cover crops, and cultivation every other year were the methods compared.

The sod orchard was left permanently in sod. Grass was mowed when too long to permit orchard operations and left on the ground. The orchard in clean cultivation was plowed every spring and cultivated every two weeks till September 1. The cultivated orchard in which a cover crop was used received twenty pounds of crimson clover, was sown July 10.

Yield of fruit is, of course, one of the best yardsticks by which to measure the merit of the various practices. Judged in this way, clean cultivation made an average yield for ten years, of nearly double the yield on sod. The growth of trees was also greater on cultivated trees. There was, however, less variation from year to year on the sod orchards. Also, this orchard suffered less from frosts and freezes than did fertilized trees in clean cultivation. There was a larger percentage of cull apples on the sod orchard than on cultivated trees.

Better still than clean cultivation was the modification of this method, clean cultivation followed by a cover crop. The yield was a trifle higher than from the orchard in clean cultivation without a cover crop, the tree growth was a little better, and the washing of soil not so bad.

Profits in Preserving Fruits

By Greely Everitt

ANYONE who has a desire to become a "miracle worker" should follow the recipe of Edgar R. Foxtan, of Argentine, a little village in Genesee county, Michigan.

"An idea stirred up well with a liberal quantity of hard work. Flavor the mixture with enthusiasm and sprinkle with smiles."

Foxtan figured out this recipe in 1918 when he left Royal Oak, Michigan, a suburb of Detroit, with his wife and father and came to Argentine. He bought a small house and twelve acres of land and labeled his purchase: "Soft Water Lake Gardens," because of a lake of that name upon the shore of which his purchase stood. In one end of the house he opened a general store and on the twelve acres of land he raised corn, strawberries, raspberries and all manner of fruits and vegetables. A canning plant was constructed and the hard work started.

In three years Foxtan has built four additions to the house and has added some acres to his domain. His jellies, preserves and canned goods are sought by thousands every fall. He puts a value in his products that cannot be denied. His annual fall sale would be a revelation to business men of metropolitan habits. In the month of Octo-

ber he sells the products of his canner. He produces with the notion that quality in food makes friends. And anyone who has tasted of the results of Foxtan's notion will eagerly testify in his behalf. Pickles, canned corn, chow-chow, plums, strawberries, and all the other delicacies that a competent canner can conceive came out of Foxtan's idea and his hard work. And everything he cans is quickly purchased and assimilated.

Foxtan says that he is no "miracle worker." He simply had an idea and the desire to expend the hard work necessary to "put it over." In three years he has made a big success. From nothing to prosperity and happiness has been his achievement. And he says that anyone else can do it who really has the desire. A short talk with this "King of the Soft Water Lake Gardens" is convincing proof that his theory is right. And one taste of his "crab-apple jelly" or his "Golden Bantam" on the cob is a delicious and everlasting argument that his patronage will grow rapidly every year.

High yield means low unit costs. Of truck farmers, the ten best money-makers had yields forty-five per cent above the average.

FRUIT GROWING ON THE UPPER TREND.

(Continued from page 271).

trucks. The only expenditures during the season were for fertilizer, spraying and pruning. No wonder these farmers are interested in the possibilities of fruit growing as a part of their farming operations and that they are willing to travel considerable distances to learn something about such orchard practices as fertilization, spraying and pruning. On many farms the orchard was the only source of crop profits last season and it has contributed its share in years when other crops were grown at greater profits than last season.

The small fruit growers are profiting by the experience of two years ago and are building pre-cooling plants which are expected to give wider distribution or to increase the radius of shipment. Had more markets been within shipping range in 1920, better prices would have resulted from the small fruit crop as a whole. Heretofore the small fruit growers have supplied the canners and have contributed to the Chicago and Milwaukee markets, but when these markets were filled there were no other outlets of consequence and prices declined. By pre-cooling, it is hoped to cool the fruit down to such a temperature, immediately after gathering, that it will carry under ice as far as St. Louis, Omaha, Minneapolis, Pittsburgh and other cities within such a territory.

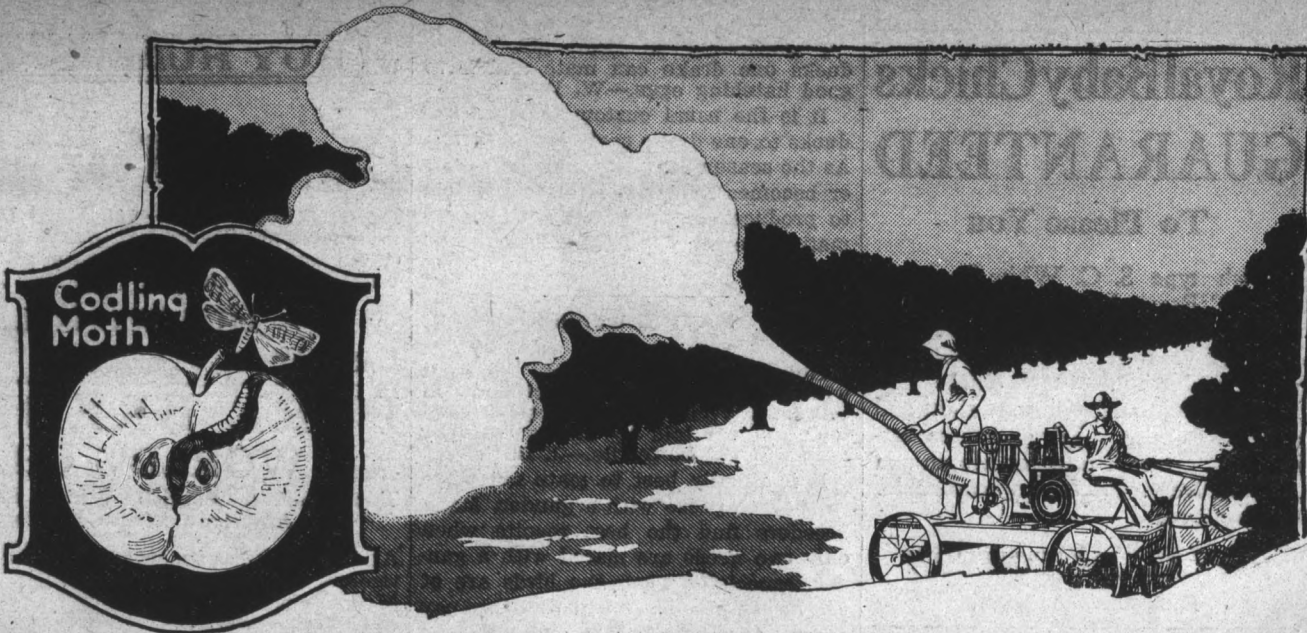
Fruit growers, as a whole, have fared quite well in Michigan during the past seasons of depression. An occasional fruit grower who failed to follow the generally accepted requirements for successful fruit production, may not have made money, but in many lines of farming the average man made no money, so that the fruit growers as a class have probably felt the financial depression less than any other group of farmers—in fact, there has been a stimulation rather than a declination of interest in fruit production.

NICOTINE DUST FOR PSYLLA.

EXPERIMENTS in dusting and spraying for pear psylla lead to the conclusion that under suitable weather conditions the pear psylla adult on individual trees may be exterminated with equal certainty by either dusting or spraying with nicotine preparations. The practicability of freeing an entire orchard of the pest remains to be demonstrated. Experiments conducted by L. F. Strickland in Niagara county also showed that dusting with lime-nicotine was effective in killing the adult psylla, but the work was not so effective with soft-shell nymphs. Dusting should preferably be done when the wind is quiet, and from as many sides as possible.

WILT-RESISTING TOMATOES.

GROWERS of tomatoes will be interested in learning that a variety called Norduke recently developed by the department of agriculture is highly resistant to wilt. Four other wilt-resisting varieties have been produced. They are, the Marvel, a medium early sort which bears a heavy crop of smooth red fruit; the Norton, an offshoot of the Stone, which produces a good yield of large, smooth, solid red, slowly ripening fruit and ships well, and the Columbia and Arlington, both of which are medium late varieties. The Norton and the Norduke are also late varieties, excellent for canning, home gardening and late trucking. Of all five varieties, the Norduke shows the highest resistance to wilt of any tomato and also some resistance to the leaf-spot disease.



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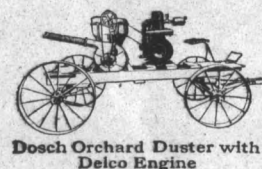
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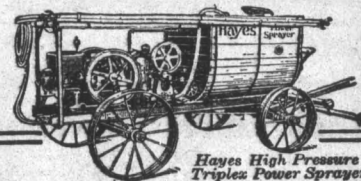
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MATING DUCKS.

I would like to know how many ducks one drake can mate and have good hatching eggs.—W. D.

It is the usual custom to mate five ducks to one drake early in the spring. As the season advances and the weather becomes milder it is often possible to produce good hatchable eggs by mating seven or eight ducks to one drake.

MATING GEESE.

How many geese should be kept with one gander? It is customary in this locality just to keep three. I have four and am told by others that the eggs will not be fertile.—J. D. C.

It is usually best to mate not more than three geese with a gander. Many breeders find the best results when only two geese are mated with a gander, especially when the birds are of the heavy breeds. It will probably pay to sell the extra goose and not take chances on the fertility of the eggs.

BRONCHITIS.

I have a hen that is gasping all the time. Would you please tell me what it is and what to do for her?—E. S.

When a hen gasps for breath it is usually a sign of bronchitis. Try giving a tablespoonful of castor oil to which you have added about five drops of turpentine. Isolate the bird in a warm dry place out of draughts. The bird may throw off the cold and soon recover, or become emaciated and die. There is really no reason why a hen should not recover from a cold the same as any other animal. But the losses are great because the condition is often neglected until the bird is in a very serious condition and badly de-vitalized.

ROUP AND CHICKEN POX.

Can you tell me what ails my chickens? Their throats and mouths fill up with yellow bunches and some of them have some on their combs and head. Some go blind. There is a bad odor to them. They can't eat, and droop and die.—J. M.

The symptoms indicate that the hens may have a combination of roup and chicken pox. The most serious cases will probably have to be killed. Roup is not hard to prevent but difficult to cure. Chicken pox can be cured by painting the sores with iodine. Roup may be prevented by curing slight colds in their first stages. Isolate sick birds that seem worth treatment. Remove the mucus from the nostrils. Rub the heads with camphorated vaseline. An operation on the side of the head may be necessary to remove the cheesy accumulations. Wash the head with a solution of some good coal-tar disinfectant.

SICK TURKEY.

We have a turkey that swells around her eyes and chokes. Would like to know what to do.—W. T.

Turkeys sometimes have what is sometimes called the swell-head. The swelling will contain a gelatinous material and this must be drained out and the wound washed with some disinfectant such as a dilute solution of coal-tar disinfectant. Turkeys also have colds which develop into roup. They are caused by a lack of vitality combined with exposed roosting places where the droppings have accumulated. The treatment is to remove the birds to a dry, open-front roosting place that is free from draughts. Turkeys do not mind severe cold but, like chickens, they try to escape the severe winds.

If the turkey seems to have a cold try removing any accumulations in the nostrils with a cloth and then run the head with camphorated vaseline. Dipping the head in a dilute solution of a coal-tar disinfectant may help to destroy the infection.

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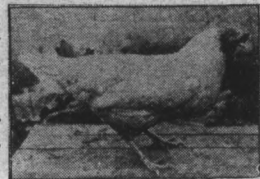
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Barred Rocks, W. Wyandottes, R. I. Red cockerels from bred-to-day stock. HOWARD GRANT, Marshall, Mich.

Ringlet Barred Rocks. Cockerels all sold. Remember me for eggs this season; range or special matings. Robert Martin, R. 3, Woodland, Mich.

Baby Chicks \$12.00 per 100 and up. Hatching eggs, \$1.50 per setting to \$15.00 per 100. We are listing 17 varieties of pure bred fowls: Chickens, Geese, Ducks & Guinea, also breeding stock. Send for prices and circular. Booking now for early delivery. CLINTON HATCHERY & POULTRY FARMS, Wilmington, Ohio.

Baby Chicks English White Leghorn and Anconas. From the best flocks in Michigan. Order now for spring delivery. Catalog free. SILVERWARD HATCHERY, Zeeland, Mich.

Original Dr. Heasley S. C. Buff Leghorn flock. Egg Basket Strain. Officially Certified Eggs bred Winners at Chicago, Cincinnati, etc. Cockerels breeding hens and chicks, at bargain prices. Also bred to lay English Strain S. C. White Leghorn chicks for 1922. Discount on Early Orders. Hillside Hatchery Farm, R. 3, Holland, Mich. Successor to Henry DePre

EVERLAY BROWN LEGHORNS. The beautiful business best! Wonderful winter layers. Big white eggs. World Record layers. American Egg Contest! Greatest winners New York, Chicago, Hardy, vigorous money makers. Stock Eggs, Chicks, shipped safely. Catalogue free. EVERLAY FARM, Box 6, Portland, Ind.

BABY CHICKS

Finest strain Barron White Leghorns, Barred Rocks, R. I. Reds. Northern grown, free range, rugged stock. Low prices. Safe delivery. Catalog. Book early.

MICHIGAN HATCHERY, Holland, Mich. Member Ottawa County Hatcher's Association

RHODE ISLAND WHITES. Win over all breeds at the egg laying contest. 30 eggs \$5; 50 \$8; 100 \$15 order from this ad. Some chicks. H. H. JUMP, R. 5, Jackson, Mich.

STILL WATER BABY CHICKS

All standard varieties. Our free catalog tells all about them. STILLWATER HATCHERY, Box G, Covington, Ohio

BABY CHICKS. We furnish Pure Bred Chicks of the finest quality from high egg-producing stock. Flocks built directly from laying contest winners. We have 17 breeds. Write for free illustrated catalog and price list. J.W. OSSEGE HATCHERY, Dept. 99 Glandorf, O.

CHICKS

Seven varieties, from excellent purebred stock. 100% live delivery guaranteed. Parcel Post Prepaid. None better. Catalogue Free. Lee's Poultry Farm & Hatchery, Edison, O.

Day Old Chicks. Let us book your order for an early hatch. Catalogue and price list now ready. H. H. Pierce, Jerome, Mich.

BABY CHICKS. White and Buff Plymouth Rocks, Buff Plymouth Rocks, Barred Plymouth Rocks, Rhode Island Reds and White Wyandottes. \$2 for \$2.25, 50 for \$10.00, 100 for \$16.00. FENTON CHICKEN HATCHERY, Box 24, Fenton, Michigan

BABY CHICKS. All popular varieties from selected flocks at living prices. Write for circular and price list. DERR & ADAMS, Litchfield, Mich.

Buy Baby Chicks Now. Don't wait! Order March and April chicks now so as not to be disappointed. My hatcheries are located in the heart of the best poultry country. My flocks have been culled. Get heavy egg producers. White and Brown Leghorns and Anconas. Safe arrival guaranteed. Write for prices. Herman J. Cook, 133 W. Main St., Zeeland, Mich.

THE EGG PRODUCER'S OUTLOOK. (Continued from page 258).

eventually may perform for their members as it is already being done in California.

Small producers, however, can put eggs down in waterglass during the season of heavy production for their own use during the fall and winter so that most of the fresh eggs in those seasons can be sold. Also, there is a possibility of working up a local trade in waterglass eggs which should sell during the winter months at about the same ratio as cold storage eggs compared with the fresh article. Furthermore, since most of the fresh eggs in the winter are laid by early hatched pullets, it is worth while to have some early chicks, preferably from stock bred for heavy production.

Prices may drop extremely low during the coming spring months, so low that some producers will lose money for awhile, but the egg industry as a whole will still be a money maker. Eggs can be produced profitably at lower prices than they were bridging in December. The weighted average farm price during the past ten years has been about twenty-five cents per dozen.

FEEDING BREEDING GEESE.

Would you please tell me what to feed my geese this spring? Last year I had poor luck raising them. Early settings did not hatch. They were fed on grain.—C. E. S.

A good mash for breeding geese consists of equal parts of bran, middlings and ground oats mixed with milk. This can be given in the morning. Corn should be fed at night. Breeding geese may become too fat on a diet limited to corn. Their digestive system is better adapted to mash than to whole grain. If geese become too fat it injures the hatchability of the eggs. A mash consisting of equal parts by weight of corn meal, ground oats and bran is also recommended for geese.

PROPER NESTS SAVE EGGS.

IN many poultry houses that are properly constructed little time has been spent in making good nests to go with those houses. A poor system of nests will mean broken eggs. Open nests soon become dirty in winter from the hens roosting on the sides of the boxes. The hens will scratch in the litter in an open nest and kick the eggs against the sides of the box. Then the eggs are broken and it helps to start the egg-eating habit.

Nests should be in portable sections so they can be taken outside occasionally for sunning and spraying. When nests are nailed to the poultry house walls they form cracks and crevices where mites and lice hide.

Some of the best nests we have seen were built so the hens could enter from the rear. These nests were slightly dark so the hens could not easily see the eggs. The hens like the seclusion of such a nest and it reduces the danger of egg eating. There should be about one nest to every four hens as this prevents crowding, which is another cause of broken eggs.

Nests need a steep sloping roof so the hens will not roost on them. They must be deep enough so the eggs will not roll out, but not too deep so the hens will jump on the eggs. Twisted hay makes a good nesting litter, but the hens will gradually pick it out of the nests so that more is needed every few weeks. A straw litter packed into the corners of the nests is about as permanent as any. The changing of litter does not take long and broken eggs result from a lack of nesting material. So it pays to watch the nests and keep them in the condition that means perfectly clean and unbroken eggs.—K.

Why Pay More? Only \$13.25

Order Direct From This Ad. THINK OF IT! 130 Egg Incubator for only \$13.25. 180 Egg Size \$15.75 for only \$22.25. 250 Egg Size \$22.25 for only \$22.25. Both Machines \$17.75. 180 Egg Incubator & 180 Chick Brooder Both Only \$22. This 250 Egg Incubator & 250 Chick Wood Brooder Both Only \$30. WISCONSIN COLONY BROODERS. Automatic control—can't go out—can't overflow—no wicks to carbon—burns steady blue flame—no valves to set—the best colony brooder on the market. 130 Egg Incubator with Colony Brooder \$22.25. 180 " " " " " 27.75. 250 " " " " " 34.25. WISCONSIN INCUBATOR COMPANY. Box 92, RACINE, WIS.

25c will bring you semi-monthly utility farm poultry newspaper one whole year as trial. POULTRY GUIDE, Box D, Montpelier, Indiana

POULTRY

Get the BIG PROFITS, with BABYCHICKS that are PURE BRED

Place with us AT ONCE, your order for Baby Chicks. Our supply is limited and we refuse to sell anything but our OWN STOCK, so we advise to not delay. Buy from Michigan's largest practical Single Comb White Leghorn Egg, Pullet and Broiler Farm. We supply every egg that goes into our incubators from our own strain of BRED TO LAY UTILITY S. C. White Leghorns and have a few thousand surplus chicks to spare at certain periods of the season. We GUARANTEE each customer ABSOLUTE SATISFACTION. Write NOW for interesting PRICES, before placing your order elsewhere. Drop us a Post Card TODAY. Chicks delivered at your door by Parcel Post Free. 100% ALIVE

Macatawa White Leghorn Co., Inc. Holland, Michigan

FREE BABY CHICKS BOOKLET GUARANTEED. Postage Paid. Live arrival guaranteed. Write TODAY for valuable FREE Booklet, "How to Raise 90% of Your Chicks" also interesting Catalog, describing convincingly WHY you should purchase our "Better Hatched" Chicks. Co-Operative Breeding and Hatching Co., Box 11, TIRO, OHIO.

OVIE'S BABY CHICKS

Makes Producers! For years we have been building up utility heavy laying strains of exhibition quality so our customers will be assured of success. 12 leading breeds. 14c each and up. Safe arrival guaranteed by P.P. Prepaid. Catalogue free. Ovie's Poultry Farm & Hatchery, 32 State St., Marion, Indiana

100,000 Reliable Chicks for 1922

Of quality, real value for your money. Anconas, Brown Leghorns, American and English White Leghorn strains, with the long deep-bodied loop combed kind that lay the large white eggs, from Hogenized selected flocks. Post paid to your door at reduced prices. Get our information and price list free before you buy elsewhere. PAUL DE GROOT, Prop. Reliable Poultry Farm & Hatchery, Zeeland, Mich., R. R. No. 1

DAY OLD CHICKS

White Leghorns \$15 per 100; \$8 for 50; and \$4.25 for 25. Barred and White Rocks, White Wyandottes and Rhode Island Reds \$17 for 100; \$9.00 for 50; and \$4.75 for 25. Order from this ad, terms cash with order. Custom hatching 5c per egg, hatchery capacity 9600. Hatchery 4 miles east of Mt. Morris on Mt. Morris road one mile north and one east. Valley Phone No. 14-5. ROSS WADE, Prop. Meadow Brook Hatchery, Mt Morris, Mich.

BOOKING—1922—ORDERS B-A-B-Y C-H-I-X

WHITE LEGHORNS AND MOTTLED ANCONAS Also Black Leghorns, Brown Leghorns, Buff Leghorns, Black Minorcas, R. C. Rhode Island Reds, Barred Plymouth Rocks, White Plymouth Rocks, Silver Wyandottes, White Wyandottes. WE HATCH eggs from Hogenized flocks on free range on separate farms. Send for Price List. Valuable Booklet with first order for twenty-five or more CRESCENT EGG COMPANY Michigan

ZEELAND PULLET FARMS ZEELAND, MICHIGAN

Z. P. F. CHICKS

Hoganzed, full blooded, high egg producing Leghorns and Anconas from best flocks in Mich. Also Pullets, Cockerels and Yearlings. Order now. Reduced Prices. Catalogue free.

CHICKS

Twelve most popular varieties. Hatched from flocks which have been bred for quality and culled for heavy egg production. 100 percent live delivery guaranteed by parcel post prepaid.

Mankel Ideal Hatchery, Box B, Upper Sandusky, Ohio

MICHIGAN CHICK HATCHERY ASSOCIATION MEMBER BUY MICHIGAN CHICKS. Shepard's Anconas, English White Leghorns and Brown Leghorns and Barred Rocks. Get them direct from hatchery, save middleman's profit, all tested flocks. Free and safe delivery guaranteed. Catalogue, Knolls Hatchery, R. 12, Holland, Michigan

ANCONAS "Superior Quality"

baby chicks and fertile eggs from M. A. C. selected 250 egg strain hens, mating list free. MANNINGS ANCONA FARM, Coldwater, Mich.

Baby Chicks and Hatching Eggs. From genuine farm raised poultry, utility bred. Farmer prices. Rocks, Reds, Wyandottes, Leghorns. Price list free. GORET BROS., Corunna, Mich.

CHICKS. Eng. White Leghorns, S. C. Brown Leghorns, Anconas, Barred Rocks, from heavy egg producing stock on free range, 100% live arrival guaranteed, send for prices. Bakers Hatchery, Jamestown, Mich.

CHICKS from trapped hens. English S. C. White Leghorns and Barred Rocks. Every hen on our ranch trapped. Pullets in season. Also few cockerels. Catalog free. Hudsonville S. C. White Leghorn Ranch, Hudsonville, Mich.

Whittaker's R. I. Reds Both combs. Greatest Color and Egg-Strain. Free, by blood test, from bacillary white diarrhea. If you are interested in Breeding Stock, Day Old Chicks or Hatching Eggs write for our Twelfth Annual Catalog. It is free. INTERLAKES FARM, Box 39, Lawrence, Mich.

Light Brahmas Strong, sturdy cockerels of heavy laying strain at \$5.00. DON WHITE, Indian River, Mich.

WE BREED

Park's Strain Barred Rocks, Barron Strain White Leghorns. The two greatest strains of utility poultry in America. Baby chicks for early delivery should be ordered soon. Let us quote you our price on your requirements. Pullets, hens and males at reasonable prices. Bred in the north for northern conditions. PINE BAY POULTRY FARM, Holland, Mich.

S. C. W. Leghorns Quality Chicks

From 284 egg strain, trapnest HOLLYWOOD Farm Stock. Get my prices. At GRAND VALLEY POULTRY FARM, R. 4, Saranac, Mich.

SINGLE COMB WHITE LEGHORNS

Additional Poultry Ads. on Page 281

Divide the price of a De Laval by its years of service for its real cost.

THAT the best is the cheapest in the long run is doubly true of the De Laval Cream Separator.

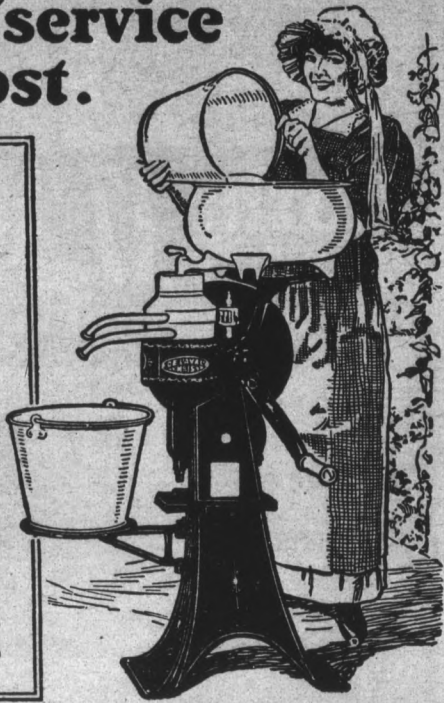
Divide the price of a De Laval by the years of use you will receive—there are thousands in use from ten to twenty years, and even twenty to thirty years is not unusual—and you get a yearly cost that is much lower than that of any other separator you can buy.

During all these years of use the De Laval will skim with the utmost efficiency; it will save instead of waste cream; it will pay for itself over and over, and return you the greatest cash income.

That's why there are more than 2,500,000 in use the world over.

Furnished with hand, power or electric drives; sold only through agents; and if desired, on such terms that it will pay for itself.

The De Laval Separator Company
NEW YORK CHICAGO SAN FRANCISCO
165 Broadway 29 E. Madison St. 61 Beale Street



Sooner or later you will use a De Laval Cream Separator and Milker

More Silage on Less Power

P. B. Messick, Middletown, Del., writes, "We used your L-16 3-knife Papec with a Fordson tractor in 1919 and did excellent work, but it seems there is no limit to the machine's cutting capacity, as this year we put 140 tons of silage away in 14 hours and then did not keep her full." The powerful Papec is guaranteed to cut and elevate more silage, with the same power, than any other blower cutter.

Write for free catalog. It shows why the Papec is supreme with men who know. If you own a silo or intend to buy one this year, state the size, also your dealer's name and address. We'll mail you free 60-page Account Book, worth a dollar to any farmer. Papec Machine Co., 150 Main St., Shortsville, N. Y. 88 Distributing Stations



THROWS AND BLOWS

The Powerful PAPEC Ensilage Cutter

SELDOM SEE Saginaw Silos

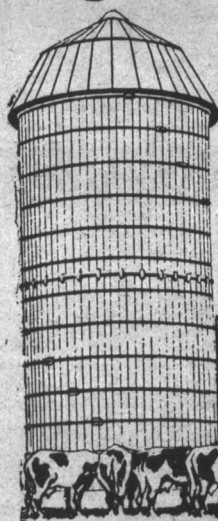
a big knee like this, but your horse may have a bunch or bruise on his ankle, hock, stifle, knee or throat.

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TRADE MARK REG. U.S. PAT. OFF.

will clean it off without laying up the horse. No blister, no hair gone. Concentrated—only a few drops required at an application. \$2.50 per bottle delivered. Describe your case for special instructions, and Book 8 R free. ABSORBINE, JR., the antiseptic liniment for man and horse, reduces Painful Swellings, Enlarged Glands, Wens, Bruises, Varicose Veins; allays Pain and Inflammation. Price \$1.25 a bottle at druggists or delivered. Liberal trial bottle postpaid for 10c.

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The Saginaw line of silos is the largest and most complete. Over 20 years of experience and experiments have made Saginaw Silos superior in every way—the last word in silo construction.

Learn more about Saginaw Silos. Their prices and terms will interest you.

Write today for full information.

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Saginaw, Mich.
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Prevent this by using ABORNO. Easily administered by hypodermic syringe. Kills abortion germs quickly without harming cow. Write for booklet with letters from users and full details of Money-Back Guarantee.

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44 Jeff St. Lancaster, Wis.



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DOGS

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Write Dr. W. Austin Ewalt, Mt. Clemens, Michigan for thoroughbred Fedigreed Collie Puppies, bred from farm trained stock that are natural heelers with plenty of grit. Puppies guaranteed.

Trained American Fox Hounds, Rabbit and Skunk Dogs all ages. Send stamp. W. E. LECKY, Holmesville, Ohio.



Mehring's Milker

Was first Pat. 1892, it has been successful ever since. It still has the lead in efficiency, and cheapness of operation and repair. One person can milk 20 cows per hour. Boys or girls can operate it. Price \$80.00 cash or \$85.00 on trial. Write to: W. M. MEHRING, Keymar, Maryland

Dairy Farming

Feed Prices Going Up

Buyers are Taking Hold of the Market.—Sanders Sosland

FEEDS are rising in price at a rapid rate, selling in a majority of instances at the peak levels of the crop year. Domestic feeders are taking hold on a widespread scale; in fact, far less hesitancy is apparent on the part of consumers in making purchases at the current high prices than was noted during the period of extremely low markets. This is not unusual, however, merely indicating that buyers, on a rising scale of values, are eager to accumulate stocks in anticipation of further upturns, while during a downward movement the tendency is to delay purchases, irrespective of the declines already recorded, to share in further recessions. About the only significance that may be attached to the liberal buying now in progress is in the fact that stocks in hands of the trade are low, the result of light buying during the fall and early winter months.

Cottonseed and linseed cake and meal have advanced to a level where feeders are hardly able to profitably use the feeds. Still, in comparison with the supplies of the high protein products available in domestic channels, demand from the consuming trade may be described as active. Purchases are in small lots, although scattered over a wide territory. Some foreign demand also has developed for both cottonseed and the flaxseed by-products, thus tending to stiffen the market. Oklahoma crushers are asking between \$40 and \$41 a ton for prime forty-three per cent protein cake and meal, and this is true of the range districts of the west. Most of the buying has centered around the large feeding sections of the central states, middle west and east, among feeders of beef cattle who have profited by the recent strengthening of prices in live stock markets.

Crushers in the northwest are asking as much as \$47 a ton for linseed cake and meal, basis Minneapolis, with oil cake at the seaboard up to \$52 a ton, the highest prices thus far on the crop and even approaching the peak levels of the past few years. Holland, Belgium and the United Kingdom have taken small supplies of cake from the eastern seaboard, which, along with the brisk domestic demand for spot and thirty-day shipment, has brought about a scarcity of offering. More or less uncertainty pervades the trade as to the probable trend of values for the high protein feeds, and, while the trade recognizes that prices are abnormally high and on an unhealthy basis so far as a permanently broad demand is concerned, there is doubt as to the prospects of declines in view of the extreme scarcity of supplies. Flaxseed and cottonseed have recently advanced sharply in price, indicating the probability of small stocks for crushers the remainder of the crop year. Even in the face of such conditions, however, it seems inadvisable to accumulate stocks of either linseed or cottonseed cake or meal. The prices are unreasonably high.

Bran and shorts have not hesitated in following the generally rising tendency of prices. Production of flour in both the spring and winter wheat territory has increased materially, although still considerably below capacity. At the same time, it is doubtful whether the supplies of bran and shorts in consumptive channels have increased to the extent justified by the

larger flour output, mills having made greater sales in their local communities. Compared with a month ago, bran prices show an advance of \$3.00 to \$4.00 a ton on most markets. Minneapolis is asking \$25 to \$26 a ton for spot bran, Kansas City quotes sales for spot and prompt shipment between \$24 and \$25, with late March delivery at a dollar premium. St. Louis and Chicago are generally around \$27 to \$28 a ton for bran.

The rapid upturns in brown and gray shorts or middlings are attributed in a large measure to the almost remarkable strength of hogs, which has stimulated consumption of the wheat feeds along with the use of corn. The fact that the leading coarse grain also moved up in price and is displaying underlying strength on markets added to confidence in the position of the mill offals. In Chicago gray shorts or flour middlings are selling up to \$30 a ton. St. Louis is quoting a top of \$29, Minneapolis is asking around \$28 for prompt shipment, and the range of sale in Kansas City is between \$26 and \$27 a ton. Strength of the heavier mill feeds, which had been forecasted in these columns, will probably continue to be felt during the remainder of the winter and well into the spring season. The period of heaviest buying of shorts is just approaching, and will probably be even more than now expected in view of the attractive position of hogs. Brown shorts are being maintained at a slight premium above bran, but it is likely that both brown and gray shorts will work to a wider premium above the light mill offal. For the next sixty days, at least, shorts in probably a healthier position than other feeds.

Advances in corn and oats, while based largely on the sharp gains in wheat, reflect a rapidly strengthening undertone in the market. Offerings of the coarse grains have fallen off considerably, and dealers see a further slackening in the flow of supplies from the country as soon as renters clean up their surplus holdings. As the spring season approaches, an important demand develops from the south and southeastern states, indicating that the large yields of grain in that territory on this crop have already been consumed. On the other hand, stocks of both corn and oats in hands of producers, as well as on markets, are the largest in the history of the trade, and this is proving a serious burden upon the market. Country prices for corn have advanced above forty cents a bushel in most communities, and farmers who are converting their surplus stocks of the grain into "porkers" estimate that they are receiving fully double this price. One of the difficulties, in this connection, is the fact that there is relatively more corn than hogs.

Fancy, leafy varieties of alfalfa hay are in keen demand, and record prices, as high as \$29 a ton, have recently been paid in Kansas City, the largest forage market. The cheaper offerings of hay, however, are weak, and when it is remembered that fully seventy-five per cent of the terminal arrivals are of the poorer grades, it is not surprising to note that a very weak undertone prevails in the trade. Demand is broadening slowly in the hay market and until more orders for brown alfalfa are filled, little improvement is ahead.

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Royster's Fertilizer planted with your seed will reflect itself in the **quality and quantity** of your crop.

Again, it reflects itself in your sense of satisfaction that you have selected **Roysters**—the fertilizer that is crop insurance and crop assurance.

And Then—**Royster Quality** is reflected in that additional profit you receive for the **Bigger and Better** crops grown with the **Royster Brands**.

The test of years has strengthened the popularity of **Royster Quality and Royster Service**.

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WORKS WONDERS ON CARS TRUCKS & TRACTORS

A Gasoline Saver that has been proven to give 4 to 8 miles more per gallon of gasoline. Fits any make of car or truck—between carburetor and intake manifold. Makes gasoline explode completely, so that none is wasted. Pays for itself in few weeks' driving. Makes starting easy in coldest weather. Has no moving parts—nothing to get out of order—no holes to drill. Anyone can install it. Thousands in use. One man writes, "I never would believe that this little device would do such wonderful work, if I hadn't proved it on my own car."

Money-Back Guarantee
Send \$2.50 today, stating make of car or truck, and you will receive the GASAVER by return mail. Try it out and, if not satisfied, return to us within 30 days and we will refund your money. (Special price on tractor sizes).

AGENTS—Sample GASAVER for any car or truck. Enclose this advertisement and \$2 and you will get the GASAVER by return mail with full instructions for selling.

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Dept. A, 501 Detroit Savings Bank Bldg., Detroit, Michigan

\$24.95 ON TRIAL

Upward **American** FULLY GUARANTEED CREAM SEPARATOR

A SOLID PROPOSITION to send new, well made, easy running, perfect skimming separator for \$24.95. Closely skims warm or cold milk. Makes heavy or light cream. Different from picture, which illustrates larger capacity machines. See our easy plan of **Monthly Payments**

Bowl a sanitary marvel, easily cleaned. Whether dairy is large or small, write for free catalog and monthly payment plan.

Western orders filled from Western points.

AMERICAN SEPARATOR CO.
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2 Cents a Name Paid

for the owners of sheep in your locality. Give name and correct mail address of each owner and state number of sheep owned.

All lists will be verified as rapidly as received and payment mailed promptly. Send your list to

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506 Carlton Ave., Wheaton, Illinois

HOMESPUN TOBACCO, smoking or chewing. Collect on delivery, 5 lb., \$1.50; 10 lb., \$2.50; 20 lb., \$4.50. FARMERS' ASSOCIATION, PADUCAH, KY.

Dairy Convention

TO what extent effective cooperation tends to promote prosperity of all the nine units of the Michigan Allied Dairy Association, was clearly demonstrated during the third annual convention of that organization in Saginaw, February 14-17 inclusive. With the meeting an interesting and instructive dairy show was held, covering the entire main floor of the auditorium, which proved how completely the business of dairy production is linked with the business of manufacturing and marketing those products. President Overton's Opening Remarks.

The cost of production and distribution of milk must be lowered if the dairy industry is to take its rightful place in Michigan and in the nation, Glen Overton, of Allegan, told the members of the organization at the opening session of the convention. He stressed the possibility of reducing production costs by securing better cows and pure-bred sires. The average milk production of American cows is only half what it should be, he said, declaring that attention to the quality of cows is necessary to correct this condition. He also urged attention to the distributing machinery of the dairy business which he said is wasteful and inefficient.

Besides the realistic dairy exhibit of the United States Department of Agriculture, which visualized step by step the economic factors involved in the production and marketing of milk and milk products, and which was first shown at the national dairy show at St. Paul, there was a smaller exhibit by the State Department of Agriculture and the Michigan Agricultural College, showing the rapid progress made in this state in the production of foreign cheese by the use of recently discovered cultures, and the wide range of condensed and powdered milk. These were the educational features of the convention, the former exhibit occupying the entire stage of the auditorium and the latter exhibit was in the inner lobby where it attracted the interest of thousands of visitors.

Supplementing these educational features there was a fine display of dairy, creamery and ice cream making machinery put on by the "Boosters," one of the nine units of the association (referred to above), who comprise the machinery and accessory division of the organization. The displays, of greater interest, of course, to the creamery and ice cream men, showed the rapid strides made in recent years in invention and perfecting of efficient machinery to handle milk and milk products in a sanitary way, and at much less cost than by former methods.

ANOTHER BID FOR MUSCLE SHOALS.

NEW developments in the Muscle Shoals situation have been the bid of the Alabama Power Company which would secure the development for power purposes only, according to the American Farm Bureau. The Alabama company offers one hundred thousand secondary horsepower at no cost for operation of the nitrates plant. No provision is made for the operation of the plant and the company does not propose to undertake it. Neither is any research into the broad field of electric furnace development of fertilizer production possibilities contemplated in that offer. This last proposal is said to have strengthened the agricultural support for the acceptance of the Ford proposal.

Thinkers, not tinkers, get the most from their machinery.

Health Insurance for Milch Cows

— a penny a day keeps a cow fit



WHY take chances with cow health, when such a little outlay will keep the whole herd in the pink of condition and producing at maximum profit? Now-a-days Kow-Kare is being used fully as much as an aid to perfect health and milk yield during the winter as it always has been as a medicine for cow diseases.

Actual tests in hundreds of dairies prove that Kow-Kare can be used as a preventive and production aid with wonderful results, at a cost of only about a cent a day per cow. Easy to prove it for yourself; select a poor milker and use Kow-Kare according to directions for a short period. By improving the assimilation and digestion, you will note a decided gain in milk yield.

Kow-Kare has positive medicinal qualities that build up and strengthen the organs of production and reproduction. As a sure, reliable remedy for Barrenness, Abortion, Retained Afterbirth, Scouring, Bunches, Milk Fever, Loss of Appetite, etc., Kow-Kare has a reputation of twenty-five years success.

Dairies that use Kow-Kare as "health insurance" are the profit makers. Our free book, "The Home Cow Doctor," has many valuable hints for cow owners, besides definite information on how to treat cow diseases. Send for your copy today.

Kow-Kare is sold by general stores, feed dealers and druggists at the new reduced prices—65c and \$1.25

DAIRY ASSOCIATION CO., INC.
Lyndonville, Vt.



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Read-Cut Home

\$200 to \$2200

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Grows anywhere—defies drought. 20 to 40 pounds per acre sown broadcast produces 4 to 8 tons finest hay. Cattle crave it. Cheap to sow, easy to grow. 2 and 3 crops a season. Our big free Farm Seed Catalog is full of valuable information. Send for copy. Try Sudan. Limited quantity offered at \$5.50 per 100 lbs., freight prepaid to your station. **Send no money. Simply mail this coupon.**

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ACHIEVEMENT

The reward of pure breeding; the accomplishment of quality. Success has again contributed more laurels to the already remarkable record of

Imp. Edgar of Dalmeny

The Sire Supreme

At the International Live Stock Exposition, where gathers each year the elite of North American Cattle to compete for the coveted awards, five more honors have been bestowed upon the "get" of Edgar of Dalmeny. You too may share these honors. A bull by this world famous sire will prove a most valuable asset to your herd. Write us today.

WILDWOOD FARMS

ORION, MICHIGAN
W. E. SCRIPPS, Prop. Sidney Smith, Supt.

REGISTERED Aberdeen-Angus. Ten heifers, six bulls from eight to fourteen months. Best of breeding, the growthy kind that make good. Reasonable. Inquire F. J. WILBER, Clio, Mich.

Registered Guereseys

We have a special proposition on your Bull for next year that will interest you now.
J. M. WILLIAMS, North Adams, Mich.

GUERNSEYS Accredited Herd. Bulls sold in last month. Bull calves under 4 months old. Grandsons of ex-worlds champion A. A. cow and out of A. R. dams. Satisfaction guaranteed. G. W. and H. G. Ray, Albion, Mich.

GUERNSEYS - REGISTERED BULL CALVES. Containing blood of world champions. HICKS' GUERNSEY FARM, Saginaw, W.S. Mich.

For Sale, Reg. Guernsey Cows or heifers, prices right. GEO. M. CRAWFORD, Holton, Mich.

Guernsey Calves, bull and heifer not related, also yearling heifer. Ancestors include most noted animals of the breed. G. A. Wigent, Watervliet, Mich.

WINNWOOD HERD
Registered Holsteins

It was through the daughters of **Flint Maplecrest Boy** that **Sir Ormsby Skylark Burke** Our Junior Herd Sir produced the Junior Champion and Reserve Grand Champion Heifer, at the Michigan State Fair this year, in a class of 38. His get won first in Calf Herd, also first in get of sire, in a class of 13. A son of either of these great bulls will help the individuality and production of your herd. We have bulls at dairymen's prices, and we also have bulls at the breeder's price, from dams with records up to 38 lbs. of butter in seven days, and 1168 lbs of butter in one year. Ask us about a real bull, a Maplecrest or an Ormsby. **JOHN H. WINN, Inc.,** Rochester, Mich.

A BLUE RIBBON WINNER
YOUNG BULL

On the 1921 Show Circuit For Sale at a low price. Out of an A. R. O. grand daughter of Pontiac Korn-dyke. Sired by our SENIOR SHOW BULL, Model King Segis Glista 32.37 lbs.
GRAND RIVER STOCK FARMS, Corey J. Spencer, Owner
111 E. Main Street, Jackson, Michigan.
Herd Under State and Federal Supervision

HERE IS A GOOD ONE
BORN JUNE 2nd 1920 by MAPLECREST DEKOL HENGERVELD whose three sisters have each produced over 1200 lbs. of butter in a year. TWO of them former WORLDS CHAMPIONS. Calf's dam by an own brother of a 1245 lb. cow. Write for pedigree.
F. B. LAY, Kalamazoo, Mich.

Bulls Registered Holstein Bulls old enough for service, for sale. Bred from Pontiac and Segis dams and sired by a 26 lb. Gdson of Maplecrest Korndyke Hengerfeld, priced to move them. Will also sell a few heifers soon to freshen. Herd under federal and state supervision.
HENRY S. ROHLFS, R. 1, Akron, Mich.

The Traverse Herd

We have what you want in BULL CALVES, the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dam's records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

TRAVERSE CITY STATE HOSPITAL
Traverse City, Mich.

"Top Notch" Holsteins

A Bull of Merit—Ready for Heavy Service
Born January 24, 1920
His ten nearest Dams average 30.00 lbs.
His twenty nearest Dams average 27.92 lbs.
Splendid individual—Light in Color
Priced low for quick sale.
Also a few choice females for sale.
McPherson Farms Co., Howell, Mich.
Herds under U. S. Supervision.

\$300 buys six grade Holstein Heifers two will soon freshen other four one year old; and one registered bull ready for service; we also have some fine young bulls sired by a 23 lb. grandson of the \$50,000 bull old enough for light service at \$75 each; also cows and heifers, at right price. The Home of Michigan's Best Bull. The Long Lane Stock Farm, E. A. ROHLFS, Akron, Mich.

Wiscogin Farm offers Holstein-Friesian bulls ready for light service. From sire whose 6 nearest dams average 83.34 lbs. butter for 7 days. A. R. O. Dams from 18.33 to 21.51 lbs. Herd under state and Federal Supervision. Oscar Wallin, Unionville, Mich.

Holstein Friesian heifer and bull calves, purebred registered and high-grade. Price \$20 up. Splendid individuals and breeding. Write us your requirements. Browncroft Farms, McGraw, N. Y.

A Good Note accepted in payment of finely bred registered Holstein bull calves. Quality of the best, and at prices within reach of all. Write GEO. D. OLARKE, Vassar, Mich.

HOLSTEIN and Guernsey calves, 7 weeks old, 31-32nds pure, \$25, each crated for shipment. Satisfaction guaranteed. EDGWOOD FARMS, Whitewater, Wis.

Holstein-Friesian pure-bred bull calves, tuberculin tested, prices are right. Larro Research Farm, Box A, North End, Detroit, Mich.

5 yr. old son of Smithdale Alcartra Pontiac from daughter of Pontiac Korndyke. Priced low. FERNWOOD FARM, Ewart, Mich.

Ten reg. Holstein heifers, some fresh, others fresh soon. All tuberculin tested and guar. O.K. every-way. Price \$100 to \$150 each. B. B. Heavey, Akron, Mich.

Beef Producers!
Michigan Produces
The World's Best Beef
At The Lowest Cost.

Raise far better feeding cattle than you can buy. Grow Baby Beef when gains cost least in feed and labor. Avoid costly rail hauls with their shrink, bruises and loss.

SOTHAM'S EARLIRIPE BEEF CONTRACT Solves your problem—insures your success. A fair intelligent, satisfying system evolved from 87 years conscientious service to American Cattle Industry by three generations of Sothams. GET THE FACTS. Write now, or wire, Address

T. F. B. SOTHAM & SON,
(Cattle Business Established 1835)
Phone 250 Saint Clair, Michigan

Herefords

Repeaters, Beau Donalds, Fairfaxes, and Farmers represented in our herd. Repeater 173rd, a son of old Repeater, at head of herd. Both sexes and all ages for sale.

ALLEN BROS., (Farm at Paw Paw, Mich.)
Office 616 So. West St., Kalamazoo, Mich.

Herefords For Sale 8 females and 1 bull, \$75 per head.
RALPH CALHOON, Bronson, Mich.

Jersey Thoroughbreds

Few cows and bull calves. Best breeding line. Guaranteed. Tuberculin tested twice a year. If you have no money will take bankable note. E. W. VASVARY, 509 Free Press Building, Detroit, Mich., Main 1267.

Lillie Farmstead Jerseys Bull calves from R. of M. cows.
COLON C. LILLIE, Coopersville, Mich.

BUTTER BRED JERSEY BULLS FOR SALE
CRYSTAL SPRING STOCK FARM,
Silver Creek, Allegan County, Michigan.

For Sale Jersey Bulls ready for service; Lad, Majesty breeding. WATERMAN & WATERMAN, Packard Rd., Ann Arbor, Mich.

BIDWELL SHORTHORNS
BUY A BULL

that will put weight on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. We guarantee every animal to be a breeder. Federal Test. One hour from Toledo, Ohio, N. Y. C. R. B.

BIDWELL STOCK FARM,
Box D, Tecumseh, Michigan

Richland Shorthorns

Now offering a choice lot of bull calves. Best of breeding. \$150 to \$250 will buy a real bull at present time. Write for particulars.

C. W. Prescott & Sons,
Tawas City, Mich.

Francisco Farm Shorthorns and **BIG TYPE POLAND CHINAS**
Now offering:—Three bulls ready for service. Mastodon, Olansman, Emancipator blood in girls bred for spring farrow. See them.
POPE BROS. CO., Mt. Pleasant, Mich.

The Maple's Shorthorns

Kirk Levington Lad, by imported Hartford Welfare, in service. Bulls and heifers for sale.
J. V. Wise, Gobleville, Mich.

Claradale Milking Shorthorns

We invite the discriminating breeder and farmer, who is in need of a real bull, that will transmit the combine quality of beef milk, high in butter fat, type, character, beauty. We do state official milk testing. Come and see us or write for circulars and reasonable prices. F. W. Johnson, Custer, Mich., Mason Co. Box 26

Central Mich. Shorthorn Breeders' Assn. offer for sale both milk and beef breeding, all ages. Write M. E. MILLER, Sec'y, Greenville, Mich.

Milking Shorthorns of best Bates breeding, bulls, cows and heifers for sale.
E. H. KURTZ, Mason, Mich.

SHORTHORNS. Two 4 mo. old bull calves of White-Shall Sultan Strain, a few young heifers. Priced very reasonable. J. A. WILK & Son, Alma, Mich.

Dispensal Sale of accredited herd of Milking Shorthorns, on March 21st. Davidson & Hall, Tecumseh, Michigan

Dutch-Belted Cattle registered and tuberculin tested, at reasonable prices.
Z. VELDHIJS, 3723 Maxwell, Detroit, Mich.

Stock Farming

Feeding for Spring Lambs

How an Old Feeder Does It
By L. W. Oviatt

WE feel very confident that farmers do not realize how much it means, in final results, to save practically all the lamb crop. Many years' experience has taught us that if we save all our lambs success is assured, while if we lose a heavy percent failure is almost inevitable. We find the measure of our success here is usually the measure of our real profits in the fall.

As we drive throughout the country in the early spring it is not an unusual sight to see enough dead lambs thrown out, or up on some old shed, to make a fine profit for the owner had they been saved and grown to maturity. There are many things that lead up to success or down to failure at this point.

In the matter of ewes owning their lambs we find the previous care of the ewe is by far the most potent factor. We all know that self preservation is

in the February 4 issue of the Michigan Farmer, and throw the silage onto it, thus pressing it well down in the rack. In this way each feed seems to give a relish for the other. All stock enjoy a variety of feeds as well as we do ourselves.

Many farmers feed one kind of roughage until it is all gone then another and so on. I wonder what these farmers would think if their wives should say to them in the fall, "Now, the potatoes may freeze and be spoiled so we better eat potatoes for a couple of months." Then perhaps our cured meats may not keep as the weather warms toward spring, so we had better eat our meat for six or eight weeks, then we will 'string out' on bread."

What would these farmers say? Yet this is exactly what many farmers are asking their stock to do. No, we should try to store our feeds in a manner to make them available for mixed feeding through the entire feeding season. Stock will show their appreciation as far as it is possible for a dumb animal to do so.

There are scientific reasons underlying mixed breeding which many do not understand. While the protein, carbohydrates and fat of any two feed-stuffs may be practically the same, we find the elements there in just a little different chemical combinations and thus have a little different effect on the digestive tract of the animal. And we must realize that it is not what the animal eats but what it is able to properly digest and assimilate that measures the final result to us. And experience has led us to believe we get much better results by mixed feeding.

And as to liberal feeding we feel it always pays, and especially is it true when the price of sheep in the markets are as high as they are at this time and the price of feeds are at so very low levels.

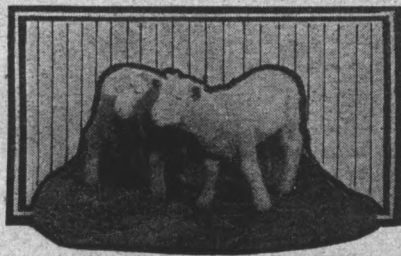
As a rule we find good clean cull beans about the cheapest and best for the base of our grain ration. We have just brought in at Sunnyside a car of good clean "splits" at \$10 per ton. When we consider the high protein and mineral content of the bean and realize what this means to the proper development of the future offspring we feel at this price no sheep man could afford to not have beans for his breeding ewes.

One-half beans, one-quarter corn and one-quarter oats in bulk makes a good standard mixture. Oats are always good but usually too high in price is why we do not use more.

If the ewes have not been liberally fed with grain one should start in carefully and gradually increase. A good liberal handful, or about one-fourth of a pound, is a good ration for a good-sized ewe until she drops her lamb, when it may be increased liberally.

Breeding ewes should have plenty of exercise and air and no matter about the cold up to lambing time, providing they are always kept dry. Moisture is the natural enemy of the sheep and should be avoided as far as possible. Later we will try to give some experience with little lambs.

It's never too late to take a farm inventory, but March 1 is generally more convenient than April 1. Do it dry roughage into the racks described March 1.



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.

Enlarged Parotid Glands.—Glands back of jaw and below ear are swollen and I would like to have you give me a remedy. R. R., Dorr, Mich.—Give him one dram of potassium iodide in feed or water twice a day; also paint glands with tincture of iodine three times a week.

Bruised Shoulder.—I have a four-year-old colt that has a bruised shoulder. After ten days rest we worked him; since then his shoulder has been swollen and tender, and a bunch remains. F. G., Owosso, Mich.—Apply equal parts of tincture of iodine and camphorated oil to bruised portion of shoulder once a day.

Thrush.—I have a ten-year-old mare that has diseased hind feet. The frog seems to be decaying or wasting away. I have observed it has a very strong odor, but she is not lame. What is the name of the ailment and can she be cured? T. C. E., Newaygo, Mich.—You have a case of thrush, the most common cause is too much moisture and filth. Keep her hind feet dry and clean, out of the manure and urine. Dust equal parts of calomel and iodoforn on the frog and into the cleft of the frog, by means of a probe, and pack with tow on top of it. Application of wood tar and tow and leather soles may be placed over this. If you will follow up the case with this treatment you will effect a cure.

Skin Glands Inactive.—I have a span of bay colts four and five years old, weighing 1,550 pounds each, broken to work last year. Part of last summer they would perspire freely, other days pant and not sweat a bit. I am not working them this winter. I gave them them epsom salts and saltpeter twice a day, but it failed to help them. Last summer I tubbed their hay, so they had no dry feed. H. C. H., South Haven, Mich.—The sweat glands of skin are not active. Keep the skin clean, sponge body with tepid water during the hot days when the animal pants; give one ounce of sweet spirits of nitre three or four times a day. Keep the bowels open.

Hog Cholera.—The hog cholera was raging in this vicinity last fall (September) and I had my hogs vaccinated and I lost none of my hogs. I did not have the cholera among my hogs when they were vaccinated, but the veterinary says after my hogs were vaccinated they could give the cholera just the same as if they had the disease, also the premises were contaminated just as though I had the cholera on the farm. Others say that the farm is not contaminated by just having vaccinated hogs on the premises. Now, my sows are due to farrow in about three or four weeks and I have never disinfected the premises as I say it is not necessary, but I am told that I should have the young pigs vaccinated as they will be kept in the same pens that the vaccinated hogs have been using. This is what I wish to know, is whether you think there is danger of these little pigs contracting the cholera from running in the same quarters that the vaccinated hogs used last October when they were vaccinated. Neighbors are interested in your reply. W. E. B., St. Johns, Mich.—Hog cholera is a specific septicemic disease of swine, and it is contagious and infectious. The original source of the virus of hog cholera, like the origin of other viruses and pathogenic agents, is unknown; but the following are the principal sources of virus of hog cholera; infected swine, the discharge from infected swine, the carcasses of swine dead of cholera, virus used in simultaneous immunization; food, water, vehicles of transportation, stock yards, and any other substance or objects contaminated with the discharges of infected swine, or the tissue juices or products of the carcasses of swine dead of cholera. All things considered, you had better have your young pigs vaccinated. You have little to fear as your herd has always been free from cholera, therefore vaccination of your hogs should not put them in a condition to spread the disease. In cholera-infected districts every owner of hogs should have his swine immunized against cholera infection; it will pay to have it done.

Complete Dispersal Sales of Federal Tested Cattle 10 O'clock Sharp

75 Holstein Friesians
March 9, 1922
at Fairchild Farms,
Mt. Clemens, Mich.

John Schlaff, Prop. Take D. U. R. Port Huron Local or Limited, get off at Fairchild Stop. 25 miles North of Detroit, on Gratiot.

60 Holstein Friesians
March 10, 1922
Hardy & Green
Rochester, Michigan

Take D. U. R. or M. C. R. R. to Rochester, free Transportation from D. U. R. Waiting Room to sale.

135 Head of Choice Holstein Friesian Cattle

We have tested everything that freshened for two years. All cattle in best of condition and free from disease and T. B., with A. R. O. records ranging from 24 lbs. to 33 lbs. on aged cows, and from 15 lbs. to 22 lbs. on two-years-old, out of sires 31 lbs. to 36 lbs. Fifteen are due to freshen by time of sale, out of 31 lb. to 36 lb. sires. Following are some of the records made within the last two years at Fairchild Farms:

Artis Pontiac Saskia—601.1 lbs. Milk, 33.40 lbs. B. F., 7 day; 2706.1 lbs. Milk, 139.70 lbs. B. F., 30 day.
Canary Spotted Lady—702.6 lbs. Milk, 31.04 lbs. B. F., 7 day; 2700.0 lbs. Milk, 123.7 lbs. B. F., 30 day.
Lowland Maple Crest Diana—554.0 lbs. Milk, 29.64 lbs. B. F., 7 day.
De Kol Pieterje Canary—705.3 lbs. Milk, 27.2 lbs. B. F., 7 day.
Lowland Maple Crest Cora Hartog—563.6 lbs. Milk, 27.67 lbs. B. F., 7 day.
Miss Hartog Elzever—508.6 lbs. Milk, 26.2 lbs. B. F., 7 day; 2089.0 lbs. Milk, 105.0 lbs. B. F., 30 day.
Huron Hill Pontiac Korndyke, Sr., 2-year old—513.8 lbs. Milk, 22.2 lbs. B. F., 7 day.
Wabeek Minnie Boy, Sr., 2-year old—552.4 lbs. Milk, 21.64 lbs. B. F., 7 day; 2112.0 lbs. Milk, 84.83 lbs. B. F., 30 day.

Other Records too numerous to mention.
Four Bulls out of Dams ranging from 22-lb. 2-year-old to 35 lbs.
Good Bankable Notes will be accepted for six months or one year at 7 per cent. Free Transportation from Fairchild Farms to Rochester, a distance of 14 miles. Catalogs ready for distribution on March 1, 1922.

"Wood in the Box" Col. Mack, Fort Atkinson, Wis. Auctioneer, Fairchild.
"Wood in the Box" Col. Hulsizer, Rochester, Mich. Auc. Hardy & Green.
Fairchild Farms: 400 Acres, or any part there of, for sale.

E. A. HARDY & WALTER GREEN DISPERSAL SALE

At Hardy's Dairy Farm,
Rochester, Mich., March 10, 1922
60 Head of Registered Holsteins
All Federal Tested for T. B.

Among these two herds are some very fine large cows with the best of blood lines, about 20 are fresh or ready to freshen. Some extra fine heifers are from better than 30 lb. bulls.
We have been breeding for type as well as production and have some real show cattle. Some good A. R. O. records.
Everything we sell is guaranteed absolutely as represented. Will make satisfactory terms to responsible parties.

Col. Wm. Hulsizer, Auctioneer S. T. Wood, Pedigree Expert
E. A. HARDY, WALTER GREEN, Prop's.
Will meet all D. U. R. cars at Washington and Rochester, also M. C. trains.
Catalogues ready March 4.

Westview & Home Farm Duroc Jerseys Annual Bred Sow Sale March 8, 1922; 1:00 P. M. At The Northville Fair Grounds

this will be an opportunity to get some of the popular blood lines of the big bone high back with quality kind. These sows are bred to such boars as Westview Pathfinder, Westview Pathfinder Lad, Westview Pathfinder Jim, Westview Orion Lad, Home Farm Wonder and Panama Special 11th.

Send For Catalog
Auctioneer COL. L. W. LOVEWELL
ALBERT EBERSOLE THOMAS UNDERHILL & SON
Plymouth, Mich. Salem, Mich.

HOGS
BERKSHIRES
Special prices for registered Berkshire breeding stock:
10 Mature Bred Sows \$75.00
10 Fall Yearlings Bred \$50.00
Best type with size and quality. Satisfaction absolutely guaranteed. Write for information.
C. C. COREY,
2428-30 First National Bank Building,
Detroit, Michigan

DUROC JERSEY
Bred Sow and Gilts at
Auction Sale
March 8th at Northville Fair Grounds
look for large adv. in this issue.
Send for Catalog
Thos. Underhill & Son, Salem, Mich.

Woodland Farm Duroc Hogs
A well kept herd, best of blood lines, with size and breeding qualities, stock of all ages for sale at reasonable prices. W. E. BARTLEY, Alma, Mich.

Brookwater Duroc Jerseys

Bred Gilts for March and April farrow. Bred to Big Bone Giant Sensation, Panama Special 55th and Brookwater Demonstrator 26th. Write us for description and prices. Or come and see them.

BROOKWATER FARM, Ann Arbor, Mich.
H. W. Mumford, Owner J. B. Andrews, Mgr.

Duroc Bred Sows \$40 to \$50. Service boars \$15 and \$20. We register in your name and guarantee satisfaction. We have one of the largest and best herds in the state. Write for special sale folder.
Michigan Farm, Kalamazoo County, Pavilion, Mich.

TAKE NOTICE Duroc Jersey boars and bred sows, fall gilts and spring gilts at Auction, Mar. 8th, at Northville Fair Grounds. Look for large adv. in this issue. Send for catalog. Albert Ebersole, Plymouth, Mich.

DUROC JERSEYS
Bred gilts at \$40-\$45-\$50 each. Also some good fall pigs.
RUSH BROS., Romeo, Mich.

Duroc Jerseys A few extra good fall boars, and a choice lot of spring boars of the heavy boned type popular blood lines at reasonable prices.
DROTT & BERNS, Monroe, Mich.

DUROC JERSEYS: A few choice bred gilts for sale.
CAREY U. EDMONDS, Hastings, Mich.

Pure-Bred Duroc Jersey Hogs: we usually have good boars and sows of all ages for sale. Reasonable prices. Write to Research Farm, Box A, North End, Detroit, Mich.



Spring pigs by Walt's Orion, First Sr. Yearling Detroit, Jackson, Gd. Rapids and Saginaw 1919
Phillips Bros, Riga, Mich.

Herd headed by Great King Orion Col. assisted by a good son of King Orion Fancy Jr.
HARRY FOWLER, Sturgis, Mich.

AM SELLING
a great offering of bred Duroc sows and gilts March 4th. They are mostly bred to Orion Giant Col., son of Ohio Grand Champion. Get on mailing list for catalog.
W. C. TAYLOR, Milan, Mich.

DUROC - JERSEYS
Sows all sold. E. D. Heydenberk, Wayland, Mich.

BIG TYPE CHESTER WHITES
The prize winner kind from the best prize winner bloodlines. Early developers, ready for market at six months old. I have started more breeders on the road to success than any man living. I want to place one hog in each community to advertise my herd. Write for agency and my plan.
G. S. BENJAMIN, R. F. D. 10, Portland, Mich.

CHESTERS We are all sold out of Boar, Bred Sows and Gilts. For spring pigs write WEBER BROS., Royal Oak, Mich., 10 Mile and Ridge Rd., Phone 408.

Chester Whites, bred gilts and fall pigs of excellent quality and breeding. Satisfaction guaranteed. F. W. Alexander, Vassar, Mich.

Chester Whites Bred gilts for April farrow 250 lbs., c. q. d. \$45.
ALBERT DORE, Clinton, Mich.

O. I. C. HOGS
all ages sired by Callaway Edd. 1918 world's grand champ. boar and O. C. Schoolmaster 1919 world's grand champion, also Wonder Big Type and Giant Buster. Write your order all stock shipped on approval.
GRANDELL'S PRIZE HOGS, Cass City, Mich.

O. I. C. & Chester White Swine. Strictly Big Type with quality. Service boars, and gilts bred for Mar. and early April farrow, are all sold. Some good ones left, bred for last of April and early May farrow. All of prize winning blood lines. Have one good tried yearling sow that I will sell.
Newman's Stock Farm, R. 4, Marlette, Mich.

O. I. C's, Ang. and Sept. pigs and bred gilts for Mar. farrow.
CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C. BRED GILTS
shipped O. O. D. Mason, Mich.

O. I. C. Spring boars and gilts no akin. We breed and own the Grand Champion Boar at West Mich. State Fair. We ship O. O. D. and Reg. free.
GEO. M. WELTON & SON, Alto, Mich.

O. I. C's, choice gilts bred for March and April farrow.
A. J. BARKER & SON, Belmont, Mich.

BIG TYPE O. I. C. Pigs born Sept. The L. Silver Strain, Both sex.
GEO. N. RUPRACHT, Mallory, N. Y.

For Sale. O. I. C. Gilts bred for March and April farrow (at a reasonable price).
H. W. MANN, Dansville, Mich.

O. I. C's A few bred gilts and fall pigs at farmers' prices.
C. J. THOMPSON, Rockford, Mich.

LARGE TYPE P. C.
Largest herd of individuals in Mich. Come and see, compare, and be convinced, expenses paid if not as represented. Boars and early gilts all sold. A few late gilts, will sell open or hold and breed for late farrow.
W. E. LIVINGSTON, Parma, Mich.

40 Sows. Granddaughters of the great Giant Buster, bred to a grandson of the Yankee, the \$40,000 sire. Where can you find any better Big Type breeding? Our prices are very low, \$30, \$40. Also 50 fall pigs. Why not buy a pig?
JNO. C. BUTLER, Portland, Mich. Bell Phone.

LEONARD'S Big Type P. C. Herd headed by Leonard's Liberator 488,285, the tallest, longest and heaviest boned pig for his age in Mich. Call or write, stock in season. Fall pigs at Bargain Prices.
E. R. LEONARD, St. Louis, Mich.

Big Type P. C. some very choice boars double immane, out 100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

L.T.P.C. \$15, \$20 & \$25
We have a fine lot of fall pigs sired by Harts Black Price and Right Kind Clan. HART, FULCHER and CLINE, address F. T. Hart, St. Louis, Mich.

Additional Stock Ads, on Page 281

LATEST MARKET REPORTS

Tuesday, February 28.

Wheat.

Detroit.—Cash No. 2 red \$1.43; No. 2 mixed and No. 2 white \$1.40; May \$1.48.

Chicago.—No sales.

Toledo.—Cash \$1.47; May \$1.55.

Corn

Detroit.—Cash No. 2 67c; No. 3 yellow 65c.

Chicago.—No. 2 mixed 62@62½c; No. 2 yellow 62c@63½c.

Oats.

Detroit.—Cash No. 2 white 42c; No. 3 yellow 39½c.

Chicago.—No. 2 white 40½@45c; No. 3 white 37½@40½c.

Beans.

Detroit.—Immediate and prompt shipment \$6.35 per cwt.

Chicago.—Choice to fancy hand-picked Michigan beans \$6@6.25; red kidney beans \$7@7.50.

New York.—The market is steady. Choice pea \$6.50; red kidney beans \$8.25.

Rye.

Detroit.—Cash No. 3, \$1.05.

Chicago.—\$1.03.

Toledo.—\$1.08.

Seeds.

Detroit.—Prime red clover, cash at \$16; alsike \$12.60; timothy \$3.35.

Toledo.—Prime red clover \$16; alsike \$12.65; timothy \$3.15.

Hay.

Detroit.—No. 1 timothy at \$19@20; standard and light mixed at \$18@19; No. 2 timothy \$16@18; No. 1 clover mixed \$16@17; rye straw \$13.50@14; wheat and oat straw \$12.50@13 per ton in carlots.

Feeds.

Detroit.—Bran \$33; standard middlings \$33; fine middlings \$33; cracked corn \$29; coarse cornmeal at \$27; chop \$25.50 per ton in 100-lb. sacks.

WHEAT

The advance in wheat evidently outraced the actual demand and the market has hesitated after reaching a new high level on the crop, but it is in a strong position and further advances are almost a certainty during the spring months. Statistical analyses point to import requirements for the rest of the year as large as the known surpluses if not slightly larger. Export buying has followed the upturn. Germany has been a big buyer of Argentine grain, the United Kingdom is taking Canadian. It is estimated that around fifty per cent of the Argentine surplus has been sold for export already. The southwestern drought has been relieved but much more moisture than has fallen will be required to offset the effect of seven months of extremely dry weather. Furthermore, some of the acreage has undoubtedly been damaged beyond repair. Since the low condition of winter wheat was only one factor in the advance in the market, the rain in the southwest may not long delay the upward trend of prices. Receipts at primary markets have not declined as much as reported light farm reserves would indicate and the visible supply is still generous. These factors compose the chief immediate obstacle to further advances.

CORN

Corn prices in the principal surplus sections have advanced about twenty cents since the low point last November and are now at the highest level on the crop. Seventy-cent corn at Chicago is easily within the range of possibilities for the spring and summer months, as the distant deliveries are selling around that figure now. May corn at Chicago is selling within a fraction of the price at this time last year. The movement of corn from the farm remains heavy. Primary receipts for the seven weeks ending February 18 were 99,953,000 bushels, exceeding by more than forty-two per cent any like interval on record. Domestic distribution exceeds that of last year. Purchases of corn by industries since November 1 are estimated at 80,000,000 bushels, exceeding by more than 000 bushels, and export demand is phenomenal with buying for Russian relief only a minor factor. The movement of corn from the Argentine and South Africa is practically over so that the United States must supply the foreign

demand until June at least. The heavy movement of corn from farms is expected to last a couple of weeks longer by which time the breaking up of the country roads and the opening up of spring work will check sales.

OATS

In spite of the strong statistical position of oats so far as the total crop in this country and in other exporting countries is concerned, the market continues to drag and has advanced proportionately less than wheat or corn. Export demand is becoming active and domestic distribution of oats is beginning to increase. Primary receipts may decline in another month or two and demand usually improves during the spring so that a turn for the better may not be far distant.

SEEDS

Spring buying of clover and grass seed will be at its height during the month of March. The advance in prices of these seeds has not reduced the farmer's willingness to buy as other farm products also are higher. Inquiries for clover seed have increased as buyers fear that the market is getting away from them.

FEEDS

High prices and favorable weather have curtailed demand for feedstuffs but values on most classes are firm. Flour mill operations have increased and offerings of wheat feeds are more liberal. Stocks of cottonseed meal and cake at mills on February 1 were 28,000 tons larger than a year ago in spite of a smaller cotton crop, and corn industries are operating nearly at capacity so that corn feeds are abundant. Linseed meal stocks are light. Ten dollar hogs have helped advance the tankage market as the demand is

keen, the supply is low and farmers are willing to pay the price. The same influence is supporting middlings. With the coming of spring, middlings will be wanted on account of the pig crop, while as soon as pasture is available, demand for bran usually declines. Middlings may sell at a substantial premium in a month or two.

HAY

Demand for hay remains limited but loadings are moderate so that prices are practically steady in most markets. The advance in live stock has not helped the market noticeably. Unless more rain arrives in the southwest, that section may become a moderate buyer.

POULTRY AND EGGS

Egg prices lost ground last week. The market has discounted in advance most of the spring increase in production so that declines from the present level should not be severe, although the season's low point probably has not yet been reached. Combined receipts of eggs at Chicago, New York, Philadelphia and Boston are about 30 per cent lighter than at this season last year. Production has not reached its height by any means.

Chicago.—Eggs, fresh firsts 27½c; ordinaries 23@24c. Poultry, hens 27c; springers 28c; roosters 18c; ducks 28c; geese 18c; turkeys 35c.

Detroit.—Eggs, fresh candled and graded 29@29½c. Live poultry, heavy springers 28c; light springers at 25c; heavy hens 30c; light hens 25c; roosters 18c; geese 20@22c; ducks 35c; turkeys 35c.

BUTTER

Lighter receipts and reports from country districts of a lighter make failed to restore a firm tone to the

market. Eastern markets and Chicago were quoted on about the same basis so that the amount of inter-market trading was small. Demand is broad and foreign markets have turned firm so that there is little danger of any further imports in the near future. Withdrawals from cold storage have decreased and are running lighter than at this time a year ago, although the quantity still in storage is larger than at that time. Although the tone of the market was unsettled, Chicago prices remained practically unchanged while the leading eastern markets declined about one and one-half cents during the week. The trend of the market in the next two months depends largely on the rate at which production increases. Prices on 92-score fresh butter are:

Chicago 37c; New York 36c. In Detroit fresh creamery butter in tubs 34@35½c per pound.

CHEESE

Sellers are not disposed to make concessions but all dealers are operating cautiously and are anxious to keep goods moving so that any real evidence of accumulation might induce a break. Held cheese is in a strong position as the supply is small. Longhorns are quite scarce but the supply of twins recently has been excessive.

Chicago.—Flats 21@21½c; twins 20½@21c; S. daisies 22½@23¼c; D. daisies 22@22½c; longhorns 22½@23½c; square prints 23@24c.

POTATOES

Potato shipments up to February 18 were 22,000 cars more than to the same date of 1921. Idaho, Maine, Montana, Nebraska, North Dakota, South Dakota and Washington have shipped more than for the entire season last year but shipments from Michigan, Pennsylvania and Wisconsin have decreased this season. The potato market has been inclined to drag. Northern sacked whites are bringing \$1.55@1.65 per 100 pounds f. o. b. shipping points, and \$1.75@2 in the Chicago market.

APPLES

The apple market shows but little change. Baldwins are bringing \$7.50@8.50 in consuming markets. Northwestern extra fancy boxed Jonathans are bringing \$3@3.50 per box. The supply of apples for the rest of the season is slightly above the five-year average.

GRAND RAPIDS

The producers' market was quiet with potatoes in greatest supply. The prices to growers are as follows: Potatoes \$1@1.15; cabbage 2½c per lb; carrots \$1.25 bu; beets, rutabagas and parsnips \$1.50 bu; apples \$2.75@4; dairy butter 22@24c; eggs 25@26c a dozen; chickens 24c.

DETROIT CITY MARKET

The farmer's markets were mostly supplies with potatoes, although prices for them held firm. Cabbage, carrots, poultry, parsnips and parsley roots were in greatest demand. The prices are as follows: Apples \$1.50@3; cabbage \$1.75@2; carrots \$2.25; eggs at 40c; potatoes \$1.15@1.25; poultry 30c; parsnips \$1.75@2.50.

LIVE STOCK SALES.

Holsteins.—March 9, John Schlaff, Mt. Clemens, Michigan.

Holsteins.—March 10, E. A. Hardy, Rochester Michigan.

Duroc-Jerseys.—March 8, St. Joseph County, Duroc-Jersey Breeders' Association.

Holsteins.—April 20, Eaton County Holstein Breeders' Association Assignment Sale, at Charlotte, A. N. Loucks, Secretary.

Shorthorns.—May 10, Greenville Fair Grounds, Central Michigan Shorthorn Breeders' Association.

DETROIT MILK PRICES.

For the month of March the price paid by the Detroit distributors will be \$2.17 per cwt. for all milk from a new zone taking in the territory within a radius of forty-five miles of the city. Outside of this zone the manufacturer's price, which has not yet been set, will be paid unless the milk is needed as whole milk in Detroit, when the above price of \$2.17 will obtain. The dealers will deliver milk in Detroit at twelve cents per quart.

Live Stock Market Service

Wednesday, March 1.

DETROIT

Cattle.

Receipts 502. Market strong and 50@65c higher than last week's close. Best heavy steers.....\$6.75@ 7.25 Best handy wt bu steers 7.00@ 7.75 Mixed steers and heifers 6.25@ 6.75 Handy light butchers.... 5.50@ 6.25 Light butchers 5.00@ 5.50 Best cows 4.75@ 5.25 Butcher cows 3.75@ 4.50 Common cows 3.00@ 3.25 Cannors 2.50@ 3.00 Best light weight bulls... 4.50@ 5.00 Bologna bulls 4.00@ 4.50 Stock bulls 3.50@ 3.75 Feeders 5.50@ 6.50 Stockers 5.00@ 5.50 Milkers and springers....\$ 40@ 65

Veal Calves.

Receipts 687. Market opened steady, closing lower. Best\$12.00@13.00 Others 6.00@10.50

Hogs.

Receipts 1,489. Market 15@25c lower. Mixed hogs\$ 11.35 Pigs, light weights..... 11.00 Roughs 8.75@ 8.90

Sheep and Lambs.

Receipts 697. Sheep steady; lambs 25c lower. Best lambs\$15.00@15.25 Fair lambs 12.00@13.00 Light to common..... 8.75@ 10.50 Fair to good sheep..... 6.00@ 8.50 Culls and common..... 2.00@ 3.00

CHICAGO

Hogs.

Estimated receipts today are 21,000; holdover 14,816. Market 10@15c lower. Lightweight active; others slow. Blk of sales \$10.75@11.15; tops \$11.20; heavy 250 lbs. up \$10.80@11; medium 200 to 250 lbs. \$10.90@11.15; light 150 to 200 lbs. \$11@11.20; light lights 130 to 150 lbs. \$10.50@11.15; heavy packing sows 250 lbs. up \$9.75@10.25; packing sows 200 lbs. up \$9.50@9.85; pigs 130 lbs. down \$9.50@10.60.

Cattle.

Estimated receipts today are 75,000; market steady to strong. Beef steers, medium and heavy weight 1,100 lbs. up, choice and prime \$9.15@9.75; do medium and good \$7.50@9.15; do common \$6.60@7.50; light weight 1,100 lbs. down, good and choice \$8.25@9.40; do common and medium \$6.40@8.25; butcher cattle, heifers \$4.75@8; cows \$4.15@6.50; bulls, bologna and beef \$4@6.50; canners and cutters, cows and heifers \$2.75@4; do canner steers \$3.75@4; veal calves, light and handy weight \$8@11.50; feeder steers \$5.50@7.50; stocker steers \$5.10@7.25; stocker cows and heifers \$3.75@5.50.

Sheep and Lambs.

Estimated receipts today are 17,000; market slow, 25c@50c lower. Lambs 84 lbs. down \$13@15.40; do culls and common \$10@12.75; spring lambs \$10.25@14; ewes \$5.75@9.25; ewes, cull and common \$3@6; yearling wethers \$11.50@13.50.

BUFFALO

Cattle.

Receipts two cars. The market is steady; choice prime shipping steers, 1,400 lbs. and up \$8.50@8.75; good to choice shipping steers \$7.25@7.75; light native yearlings good quality \$8.50@9; best handy steers \$6.75@7.25; handy steers and heifers \$6.50@7; western heifers \$6@7; state heifers \$5@6; light Michigan butchering heifers \$5.50@6; best fat cows \$3@5.75; cutters \$3@3.50; canners \$2.25@2.50; best heavy bulls \$3.50@4; best feeders 700 to 800 lbs \$5.50@6; medium feeders \$5@5.50; stockers good \$4.50@5; light common \$4@4.50; best milkers and springers \$7.50@8.5; mediums at \$30@40.

Calves.—Tops at \$14; fair to good \$8@9; grassers \$4@5.

Hogs.

Receipts 15 cars. Market is strong. Medium and heavy \$11.40@11.60; yorkers \$11.75@11.90; pigs \$11.25@11.50.

Sheep and Lambs.

Receipts two cars. Market is steady. Top lambs \$16; yearlings \$12@14.50; wethers \$10@10.50; ewes \$9@9.50.

DIRECTORS OF LIVE STOCK ASSOCIATION MEET.

At a three-day session held in their general offices in the Transportation Building in Chicago, February 14-15-16, the directors of the new National Live Stock Producers' Association laid definite plans to start cooperative commission companies. The following fundamental purposes and policies were adopted in order that all interests concerned may understand its objects and ultimate aims:

The organization of truly cooperative live stock marketing agencies as early as possible to be within the reach of all live stock producers. The markets receiving early consideration are Chicago, Indianapolis, Buffalo, Pittsburgh, Cleveland, Cincinnati, Toledo and Detroit. The National Live Stock Producers' Association will not be dissuaded from its purpose of establishing market agencies at these markets by any other agencies or organizations attempting to rush in and pre-empt the market by prior opening. This organization carries the great responsibility of establishing marketing agencies on a sound business-like and adequately financed basis.

The establishing of competitive live stock marketing agencies at market points where such agencies already exist is not contemplated, that is, it is the purpose of the association to cooperate or affiliate with all properly conducted cooperative commission agencies conforming to or adapting themselves to the principles outlined by the national plan as adopted by the general conference.

To carry on a broad campaign of education which stresses the way and means to secure more orderly marketing of live stock. The securing of dependable information as to all supplies, which information must be intelligently interpreted and put into use by live stock producers and live stock shipping and marketing agencies, that have a genuine desire and willingness to cooperate for the good of all concerned. Organizations of large numbers of producers properly organized and conducted on a strictly cooperative plan are essential to real enduring success.

This association maintains that live stock marketing agencies owned and controlled by live stock producers have the same right and privileges as other live stock marketing agencies and will demand the discontinuance of any effort to handicap or discriminate against such agencies at the terminal markets.

THE CONDENSED MILK MARKET.

There is little change in the general situation so far as condensed milk products are concerned. Little has occurred of late to promote a feeling of optimism among the condensed milk manufacturers as few new outlets have opened up. In addition, the season of maximum milk production is drawing near, which means that the already ample surplus stocks will be increased. Reports indicate that many plants are manufacturing butter and that they will continue to do so until the market for condensed milk assumes a more favorable aspect. There is a continued tendency on the part of some of the largest organizations to dispose of their plants where it can be done without too much of a sacrifice.

The one bright spot in the general situation is the demand for condensed and evaporated milk for European relief. It is reported from an authoritative source that during the month of January fully 350,000 cases were purchased and that further extensive orders are anticipated. It is known that bids were opened last week for 50,000 cases of either evaporated or condensed milk and it is stated that evaporated was taken. A further order for April delivery of 100,000 cases of condensed is now open for bids.

Domestic consumption seems to have increased to some extent principally because large chain store organizations have been cutting retail prices very materially.

WORLD CROPS FOR 1921.

The following figures, prepared by the International Agricultural Institute, show the comparison of crops for 1921 with those of the previous year: Wheat yield was 80 per cent greater; oats decreased 12 per cent; rye increased 39 per cent; barley increased one per cent; corn decreased five per cent; potatoes decreased 11 per cent; beet sugar in Europe increased three per cent.

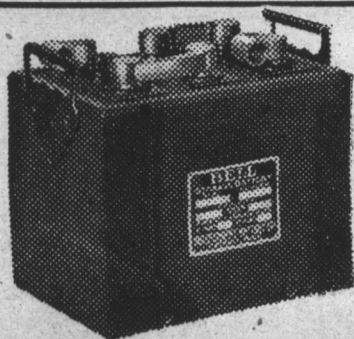
BEANS

A spectacular rise occurred in the bean market last week, Michigan beans f. o. b. shipping points reaching \$6.35@6.40 for the choice hand-picked white stock at the close. Although two lots, one of 800 tons and another of 1,000 tons, were sold for export to Europe during the week, the market is high enough to permit imports from the Orient. It will be some time, however, before such beans could reach this country. There is a possibility that further advances from this level will be hard to accomplish in the immediate future as prices are nearly twice as high as at the low point last season. Statistically, the position of beans is extremely strong.

WOOL

The wool market has quieted down considerably in the last few weeks. Quotations on some of the very inferior wools may be slightly lower, otherwise they remain practically unchanged in this country although declines of five to ten per cent have been noted in both British and Australian auctions. The woolen goods market is reported unsatisfactory, although the American Woolen Company has withdrawn many of its lines of fall goods. Woolen mills are less active than they were six weeks ago. Speculative efforts to advance the price of wool have practically ceased. The Boston market is quoted as follows:

Michigan and New York fleeces, delaine unwashed at 44@45c a pound; fine unwashed 34@36c; half-blood unwashed 39@41c; three-eighth blood unwashed 39@41c; quarter-blood unwashed 37@39c.



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Bred-to-Lay White Wyandottes
59 hens laid 170 eggs in Jan. Eggs \$2.00 per 15; \$10 per 100. **EVERGREEN POULTRY FARM,** Blanding & Sons, Greenville, Mich.

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Quality S. Wyan. from State Champ. and Detroit Winners. Yearling cocks and chicks for sale. Eggs reasonable. **Triangle Poultry Yards,** Hillsdale, Mich.

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WHITE WYANDOTTES
207 egg average. Five special matings. Eggs \$2.00, \$3.00, and \$5.00 per 15. Cockerels \$5.00.
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White Wyandottes won second cockerel, third pullet, Detroit; twelve birds, all winners, Ann Arbor. Show birds, \$5 up. Write for prices. **David Ray,** Ypsilanti, Mich.

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W. Chinese goose eggs 40c each, Pekin duck \$1.50 for 8. R. C. Br. Leghorn \$1.50 for 15. **MRS. CLAUDIA BETTS,** Hillsdale, Mich.

Mammoth Pekin Duck eggs, \$1.25 per 8; Francis-Parks 250-egg strain. Barred Rock eggs, \$1.50 per 15, \$1.50 per 50, \$9 per 100. Prepaid. **MRS. J. FRED BAKER,** Bradley, Mich.

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L. T. P. C. Gilts bred Mo. Bob., 2 sons of Clansman Image, Big Defender 2nd and High Joe, tracing back to Chief Price. **H. O. SWARTZ,** Schoolcraft, Mich.

PIG Type Poland-China and Holsteins. Two fall yearling gilts, sired by Hoyer's Giant and bred to Clansman Buster for spring farrow at \$60 each. Our spring gilts are all sold. We are offering Reg. Holstein Bulls ready for service at \$60, sired by 29 lb. bull. **DORUS HOVER,** Akron, Mich.

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—NO MONEY DOWN—FREE TRIAL
—SMALL MONTHLY PAYMENTS—DUTY FREE

We will send an Imported Melotte Cream Separator direct to your farm on a 30 days' absolutely Free Trial—no deposits—no papers to sign—use it as if it were your own separator. Satisfy yourself that the porcelain bowl is as easy to clean as a china plate. Compare it—test it in every way.

When you are convinced the Melotte skims cleaner, turns easier, washes quicker, has one-half less tinware to clean, lasts longer than all others, then pay \$7.50 as first payment and the balance in small monthly payments until the separator is paid for.

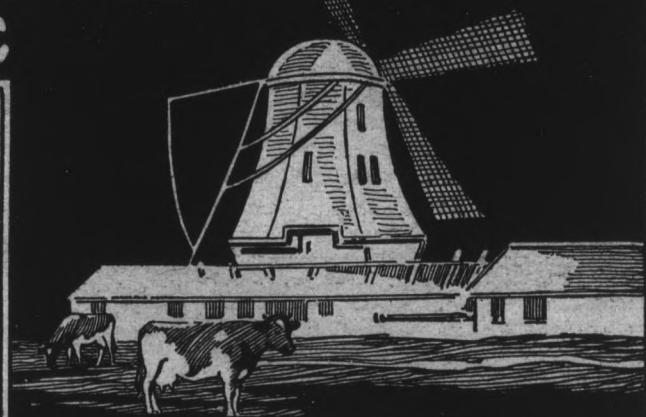
Send No Money!—Easy Payments!

After 30 days free trial, then send only the small sum of \$7.50 and the balance in small monthly payments. The Melotte pays for itself from your increased cream checks.

You're not to send one cent until you've used this great Belgium Melotte and have made up your mind

it is the machine you want. Keep it for 30 days and use it just as if it were your own machine.

Compare the Melotte separator with any other—test them side by side. Then send your milk to the creamery. Let them prove which separator skims the cleanest.



The Melotte Separator, H. B. Babson, U.S. Mgr.
Dept. 3003 2843 West 19th Street, Chicago, Illinois

Without cost to me or obligation in any way, please send me the Melotte catalog which tells the full story of this wonderful separator and M. Jules Melotte, its inventor. Also send me your revised price list showing 22% reductions.

Name _____

Address _____

Post Office _____ State _____

Send This Coupon

Mail coupon for catalog giving full description of this wonderful cream separator. Read about the porcelain-lined bowl. Easy to clean as a china plate. One-half less tinware to clean. An exclusive Melotte feature. Other exclusive Melotte features described in full.

Don't buy any separator until you have investigated the Melotte. Take advantage of the 30 day free trial which Mr. Melotte has now authorized us to offer. Test the Melotte against all other separators and satisfy yourself as hundreds of American farmers have done that it is the world's greatest separator. The only separator that requires a brake. It is so easy to turn that it spins twenty-five minutes after you stop cranking. And remember it is guaranteed for 15 years. Don't wait—be sure to mail coupon TODAY!

The Melotte Separator, H. B. BABSON
U. S. Manager
Dept. 3003 2843 West 19th Street Chicago, Illinois