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SEED CORN

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I may be able to supply you if you don't put it off
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Ralph Arbogast,
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Washington News

OUTLOOK IS GOOD.

THE world outlook is good, based
on agricultural production fore-
casts. The crop prospects are espe-
cially favorable in the northern hemis-
phere countries except Russia. Re-
ports to the department of agriculture
show that the acreage of winter wheat
in sixteen countries is 3.3 per cent
above last year, which, with favorable
weather conditions, should yield a
crop considerably above the average.
The economic outlook in Europe, out-
side of Russia, is steadily improving.

WHEAT SLUMP MAY AFFECT THE ACREAGE.

THE recent slump in wheat prices
will undoubtedly have the effect
of cutting down the acreage of spring
sown wheat. In fact, it is the conclu-
sion of some market specialists that
if the price had continued above the
two dollar mark through the wheat
seeding season, it would have encour-
aged so large an increase in acreage
in the spring wheat states that the
market next fall would have been de-
moralized by the over-production.

RESTRICTS CONGRESSIONAL IN- VESTIGATIONS.

THE Supreme Court has made a de-
cision relating to the powers of
congress in conducting investigations,
which is of considerable interest to
agricultural interests that are demand-
ing investigations of various interests
and combines. The court holds in ef-
fect that the Federal Trade Commis-
sion, even though acting under a sen-
ate resolution, cannot compel business
concerns to permit access to books and
records in an inquiry designed to pro-
vide data for legislative consideration.
The court affirmed a decision of the
federal district court at Baltimore de-
nying the commission access to the
records of several grain exporting
firms, which it had sought in an in-
vestigation to determine the causes
operating in foreign markets to affect
the prices of grain.

BIG PACKERS STILL IN CONTROL.

THE five big meat packers have dis-
posed of only 22.7 per cent of the
par value of their holdings in the
stock yards, although the packers' con-
sent degree, requiring them to divest
themselves of ownership of the stock
yards, was entered five years ago.
Armour & Company, and Swift & Com-
pany are the principal packers still
holding large interests in the stock
yards. This information is brought
out in a report of the federal trade
commission made in compliance with
a senate resolution.

FORESTRY WEEK.

IT is planned by the authorities and
organizations in Washington that
are promoting forestry to make Amer-
ican Forestry Week, from April 27 to
May 2, the beginning of a great nation-
wide movement to conserve and ex-
tend the forests of this country. The
department of agriculture will place
special emphasis on the importance of
forestry to the farmer and small land
owner.

WORLD COURT FAVORED.

THE emphasis placed upon the
world court proposal by the Pres-
ident, the influence of the administra-
tion in its favor, and the insistence of
church leaders and many organizations
that such a tribunal be created, it is
believed, will spur the senate to take
action upon it before adjournment.

DEVOTED
TO
MICHIGAN
VOLUME CLXIV

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
PUBLISHED WEEKLY
ESTABLISHED 1843

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

QUALITY
RELIABILITY
SERVICE
NUMBER THIRTEEN

What Is the Best Spray Material?

Some Interesting Results in the Spraying of Apples

By W. C. Dutton

THE title may lead you to think that I am going to tell you what really is the best material for spraying apples, but I am going to confess right now that I don't know, and further than that, I am going to try to get you dissatisfied with what you have. I presume that there are a number of people who have very definite ideas as to the best spraying material for summer applications on apples. Some will prefer Bordeaux, some lime-sulphur, some dust. Most men are of good judgment and undoubtedly have very good reasons for thinking that some particular material is better than any other. We may find before long that there is no one material which will be best under all conditions. We must consider the locality, the variety and its susceptibility to scab, russetting and foliage injury, the method of spraying, etc.

It will probably be well right at this point to set up what we may call a "set of specifications" that a material must meet before it is ever adopted as standard. This list might be a long but I will confine it to five items.

1. Physical properties.
2. Mechanical troubles.
3. Foliage injury.
4. Finish of the fruit.
5. Scab control.

Physical properties: By this I mean it is hard to prepare, mix, store, strain into the tank, etc.

Mechanical troubles would include the problem of keeping in suspension in the sprayer tank and wear on pump parts, valve seats, gun or nozzle discs. These things have to do with the material itself; the other three have to do with the fruit and foliage.

Foliage injury is every year being given more of the consideration that it deserves and this is probably due to the fact that we are becoming better informed as to the importance of the leaves.

Finish of the fruit is an angle of

the spraying game that has received too little consideration. We hear a lot about "quality fruit," but what does that amount to if it is rough, and russeted. "Finish" is important.

The last item, scab control, is the one that always has, and probably always will be, considered the most important. A material may score 100 for the first four items, but if it fails on the last it goes out.

Strength of Materials and Dosage.

Very closely connected with this problem of spraying materials is the

question of strength and dosage. Will weaker lime-sulphur or weaker Bordeaux control scab just as well? Will these weaker strengths cause less foliage injury and produce better finish? Another angle that has been emphasized, and properly so, is the question of dosage. Many growers have not gotten control because they have not used enough material. Again, questions come up. Can we spray too heavily? Will heavy spraying cause more russetting and more foliage injury? How far will increased dosage give better scab control? Should we use a small amount of strong material? With these questions, and a lot of others in mind, one of the experiments I am going to talk about was planned and carried through during the summer of 1924.

This work was done in a twelve-year-old orchard. The variety was Hubbardston. (See Table 1).

Each plot was sub-divided so that one row received a light application, another row a medium application which was just twice as heavy as the light application. A third row in this same plot was given a heavy application which was three times as heavy as the light application.

The next column in the table shows the ratio of active ingredients which each row received. An arbitrary value of one is given to the light application

(Continued on page 425).



Proper Care and Spraying Has Made the Keister Orchard Profitable Since it Was Four Years Old.

Much Thought Goes in Prize Corn

Here is the Story of Why Two State Corn Prizes Went to Hanover

By Elmer Vaughn

I WISH to thank the Michigan Farmer for its kindly interest and request for story about the corn. I will try to tell the story and to give it just a little touch of personal interest as well.

First of all, the winning of the ribbons is just a joke. There are here among my parishioners three of the very best corn men of the state. D. E. Turner, from whom the seed was obtained and who bred the variety, crossing Pickett with Duncan, then selecting carefully ever since; William Folks, who developed Folk's Whitecap Dent by selection; and his brother-in-law, Leo Wooden, who has helped to improve the same variety. These men make a trio which is hard to beat—just like the little boy's drum. These men did not show this year, so the preacher gets some ribbons.

The field lies just at the edge of the village, is quite rolling, extending from the level of the town to the border of Bibbins Lake. It was plowed late in the fall after having some barnyard manure applied to the most needy spots. The land has been in cultivation seventy-five years or more. It is somewhat deficient in humus, and only fairly fertile. The drag was put on, on the second day that work in the field could be done. Later it was dragged again twice. The seed-bed was fine. Planting was done with a horse planter. Those awful rains began just then, so that one part of the field was started a week behind the first. Then came more rain and cold. The weath-

er man surely must have had a grouch. It was a full month before cultivation could begin. The part of the field planted first was replanted with hand planter. On the hills left from that first planting the first corn grew. About half of the field was cultivated three times, the other half four times. It was all hoed once.

In the fall as soon as three shocks of corn had been cut anywhere within miles of here, the man who owned the field, a dear old fellow, eighty-three years old, who had forgotten more about raising corn than I ever knew,

as he kindly informed me, began to urge the harvest. He was put off a week. Then his part of the corn was cut. Mine was not cut till frost had done much damage in less protected fields. Of course, by the almanac, it was far past time to cut corn. My corn was not husked till winter was here. Thirty shocks are yet in the field.

Now about the selection: About six bushels of choice ears had been brought over as husked and laid on suspended planks in the garret of the parsonage barn.

This was overhauled and about one

and one-half bushels were brought into the house. Here more comparisons were made and two groups of some twelve or thirteen ears were made. The first was, practically, the ears that finally went to East Lansing. The others were rather larger, but rougher on the surface, showing more starch. Time was taken in this selecting process. Some study was given to each ear. When all was ready, Mr. Turner was called in. Several changes were made, most of which were reconsidered. One of them I must tell you about. The "sweepstakes" ear that I had selected was changed for one from the "ten ears," with the result that "ten ears" got first and "sweepstakes" second. Had this change not been made it is quite probable that the premiums might have been reversed.

And now the Corn Story is done, you can say that, not me, but Mr. Turner won at the Lansing show. And now, if you can stand it, I'd like to add another word about corn. This is in the shadow of the record in the five-acre tests. These are supposed to be variety tests, I believe. As a matter of fact, they are soil tests.

Two years ago we ran a nine variety test in this same field. Clement was the most fully matured. It was not the best yielder. The seed we planted came from M. A. C. and was not quite as high in germination as most of the others. That may have accounted for a little falling off in bushels. But it may also have accounted for a little advantage in maturing.



In Good Corn Production Preparation of Soil is Important.

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CURRENT COMMENT

The Human Attic

A SHORT time ago we had the privilege of visiting a home for crippled children. This visit was an inspiration; it was a lesson in courage, a demonstration of the triumph of mind over matter. Of all the handicapped suffering children we saw, we failed to see one sober face. If these children who were strapped on their backs or with portions of their bodies in casts, were not sleeping they were smiling the great smile that comes from within.

Here were those who should naturally be romping and free, suffering from real personal difficulties brought on by circumstances beyond their control; they were more than making the best of their afflictions. Life was apparently worth living for each one of them.

Do not we, normal, free and matured of mind, stand out in sad contrast with these children. We, who suffer constantly with worries over imaginary things, or things which never cause harm, except through our worry of them, need such examples to make us realize the necessity of cleaning out our mental storehouse, the human attic of all the rubbish that has collected therein.

It seems that those who have real, apparent personal problems are seldom grouchy, and those who have imaginary ones usually are.

This is spring; it is cleaning time. Let us not forget to clean that most important place, the human attic, of all that should not be there, and thus leave more room for the clean, sane constructive thoughts which should work hard to bring us the greatest results during the coming season.

Our 1925 Crop Program

THE proper time to make adjustments in the crop program for the season is before the spring work has started. The great stabilizing influence of the production of farm products and of the prices to be received for these products is the planting of a normal acreage of each crop. This is especially true for those products which are fully consumed within the limits of our own country. However, every year it seemingly is desirable to make a few minor changes in the program to meet varying factors of production and consumption.

The government has made a survey of intentions to plant various crops in all the states. The results of this inquiry shows that for the country as a whole, there is a prospective increase of fourteen per cent in the acreage of spring wheat, 2.3 per cent in corn, 5.6 per cent in oats, twenty-three per cent in barley, 29.5 per cent in sweet potatoes, 4.5 per cent in peanuts, and eleven per cent in rice. The prospective acreage of hay remains the same, while that of potatoes will decrease four per cent, and of flax 3.3 per cent.

Our Michigan farmers report an intention to reduce the acreage of potatoes ten per cent, and that of hay one per cent. On the other hand, corn promises to have an increase of one per cent, oats five per cent, barley twenty-five per cent, and spring wheat sixty per cent. These changes if carried out, would increase the corn acreage 13,000 acres, oats 147,000 acres, barley 11,000 acres, and hay 343,000 acres, while of potatoes there would be 71,000 fewer acres planted. In a relative sense these changes are small.

Possibly the only comment that might be added is in regard to potatoes and beans. It should be noted that our acreage of potatoes last year was cut twelve per cent below normal. The big production of 1924 was due to an average yield of eleven bushels per acre above the highest previous record. In looking forward we can, of course, only count on normal yield. If our crop acreage should be reduced an additional ten per cent this year, in accordance with the above report on intentions, then with an average yield the production would run far below normal.

In some sections where beans and potatoes compete, we fear that much of the land which ordinarily would grow potatoes will be planted to beans. The 1924 crop of beans was considerably below normal in yield, notwithstanding an average acreage was planted. If a normal acreage only is planted, and the yield is an average one, there will be ample beans grown to care for a normal demand. Should, however, this acreage be increased, the chances will be fair for selling the crop at a very low price.

Naturally, the changes made by the individual, are of small importance, but taken in the aggregate, the effect over the state and country is large, and often results in making crops either a total failure from a financial point of view, or exceedingly profitable. Our opinion is that farmers will do well to stick closely to their normal crop programs, unless there exists the best of reasons for making acreage adjustments.

Some Words Of Wisdom

WE have a President who is unique in that he is a man of few words and many thoughts. But when he uses words they display the soundness and sanity of the thoughts he has been thinking. Here is one he uttered in a speech a few months ago:

"Doubtless the farmer often has a hard road to travel and much to contend with. At the same time it may be said that he is not always versed in scientific agriculture nor equal to its opportunities."

A study of that quotation is worth while. The first sentence would be received with applause by the rural population. The second would not receive such a hearty welcome. It is a criticism, and criticism seldom receives applause from the one who is criticized.

But, we believe a fair minded person will admit that the President has uttered a truth in a simple and straightforward way.

It seems to be a human failing, not an agricultural one, to lay the blame for everything on something else. But it is an asset to have that rare quality of correcting all the faults closest at

hand before giving attention to those farther away.

In farming, these faults can be corrected by proper fertilization, cultivation, the use of good seed, the proper tending and harvesting of crops and preparing them for market, the right care of farm animals, etc. Somehow, those farmers who thoroughly do those things which are involved in what one calls good farming, are not complaining so much about the road they have to travel.

European Corn Borer

UP to the present time the records show that the damage done to corn in Michigan by the European Corn Borer has not been large. In no case where careful observations have been made does the number of infected stalks in a Michigan field exceed one per cent, and the injury has been practically negligible.

However, the danger should not be minimized. It is real and demands the attention of every agency that can be put in action against this pest. Just across the river in Ontario, the damage from this insect last year was six thousand per cent greater than for the preceding year. In one instance a farmer who previously had cribbed on the average 1,200 bushels of corn, had but 262 bushels from the same acreage in 1924. Besides, there was an average of twenty-one corn borers found in each bushel of this yield.

In order to secure a general clean up of the European Corn Borer in this state, a bill has been introduced in the legislature giving the State Department of Agriculture authority to lay down and enforce needed regulations. To carry on this work, an appropriation of \$25,000 for 1925, and a like amount for 1926 is provided. These funds will be used for carrying on scouting, quarantine, and demonstration work. Should our legislature make this bill a law the state will then have the cooperation of the federal government which will make available an additional \$35,000 to \$50,000 for use in this state. This should prove adequate to put the pest under strict surveillance.

Judging from the experiences in other places, it undoubtedly will prove the part of economy to immediately take up the fight against this European Corn Borer. In order to impress the state legislature with the need for state aid, farmers should write their representatives at Lansing, urging them to pass this measure. To be of benefit this should be done at once.

Long Range Forecasting

STARS are wonderful things. To look into the deep blue on a clear night and watch the twinkling sentinels of heaven is an inspiration. They give to one who looks a conception of the infinite.

But the language of the stars, what does that say? If we are properly versed in it, can it tell us what will happen six months, a year hence?

Some people think so. Some even think they know the language enough to tell us when it is going to rain and wet the hay next summer, and when the heat will wilt the corn. These folks give us the benefit of their super knowledge so that we may know when to carry an umbrella and when not to. Experience, though, has demonstrated that a fellow would often ruin a good suit of clothes if he followed these long-range predictions.

For instance, one predictor said that the past winter would set in early and last long. There would be much severe weather, and winter grain would suffer from lack of snow cover.

The winter has passed, so we know how well the predictions were fulfilled. The facts are, that the winter started late and ended early; the middle of December ushered winter in, and real wintry weather lasted only six of the twelve weeks of the winter season.

Another predictor said that in February cold spells would be of weekly occurrence. The records show that the past February came close to establishing a record for an average temperature above normal. It caused swelling of the buds much out of season.

The United States Weather Department also makes predictions. These are given a week or so ahead and are based on scientific findings over a very wide area. Even that fails sometimes, as storms change their courses, but it is the most accurate method of predicting that we, in the present day, are able to conceive.

These long distance predictions found in some publications, almanacs, etc., are in a class with divining rods to find water, earrings for sore eyes, and brass rings for rheumatism. Their one great value, it seems, is in giving one an opportunity to gamble on whether the predictor will happen to strike it right or not. But we believe that if one wishes to gamble there are more exciting ways so, even for that reason we have not given space to such predictions.

H₂O

YOU don't know what that is, do you? Well, I didn't either until I got educated. But now I'm educated, so I kin tell you all about it. It's what the Dr. puts down on a piece of paper when he wants to give you two parts o' hydrogen and one part o' oxygen. Both hydrogen and oxygen is gas, so when they want to give you gas, they don't give this ta you.

It's the finest stuff you ever saw ta put out fires, but it ain't very good fer ruminations. When you mix two parts o' hydrogen and one part o' oxygen you got a dandy combinashun fer cleanin', but still it makes things awful muddy. It's great stuff ta use and everybody ought ta know what it'll do fer them. Some o' the folkses don't like ta use it, 'cause their skin ain't got used ta it, and others don't like it 'cause it ain't strong enuf.

A friend o' mine says he paid a Dr. ten dollars ta know that thirty parts o' this combinashun and one part o' sodium chloride was good fer the eyes. I says windy corners in the city is good fer the eyes, too, and it don't cost nothin', but what you got shouldn't cost more, 'cause it's nothing but water and salt.

Now, water don't cost much, but two parts o' hydrogen and one part o' oxygen, or aqua pura, what it is the same, does. Names seems ta make lots o' differunce in the cost o' things.

The Doc. says about 112 pounds o' the 175 lbs. that's me, is water. Maybe he knows what he's talkin' about, but I ain't never heard myself splash around any when I'm walkin'. But come ta think o' it, I've heard o' some folkses sloppin' over, and they weren't tanked up either.

There's other ways o' makin' water expensive, but not so good fer the health. Just add a littul alkiahul, colorin' matter, or etc., and you kin sell it fer so much a ounce, if you've got the nerve ta swindul your fellow bein's. There's lots o' watered fortunes made that way.

Sofie just says, "Ah, dry up, and come ta bed." I kin tell her if I dried up I wouldn't have to go to bed. All she'd have to do is to shovel me out with the ashes. She says, too, "You don't know nothin' about fortunes." I kin just say if everyone just wrote about what he knew about, there wouldn't be much we'd have ta say. But I've had some experience with water a few times in my life, so what I give you here is what the perfessor calls authentic. HY SYCKLE.



The Importance of Breeding

Or How I Develop Heavy Layers

By W. C. Eckard

LAST fall on checking up the records of 560 Single Comb White Leghorn pullets which were placed under trapnests in the fall of 1923, we were very much surprised and not a little pleased to note that better than 350 had laid during the 365 consecutive days, 200 or more eggs. Of the 350, 200-egg hens, 195 had laid 240 or more eggs; sixty-four, 270 or more eggs, and five 300 to 324 eggs. The 300-egger's records were as follows, 300, 302, 304, 307 and 324 eggs.

In spite of the fact that the advertising of some hatchery men in Michigan may lead some people to believe that 300-egg hens are very plentiful these days, 200-egg hens, as actually located through careful trapnesting, are still scarce enough that I would hesitate to write regarding 300-egg hens if it were not for the official rec-

Since then by the writer. All the 300-egg hens, the contest hens and our 500 200-egg hens were sired by three males and the blood of these three males will flow in the veins of every chick hatched from our eggs this year. However, not all of the chicks carrying this high production blood will be 300 or even 200-egg hens, even with the best of feed and care.

Even with chickens as closely related as our stock is, there is ever some variations in type, size, etc., and just as there is variation in type and size, we can also expect variation in the egg producing ability of different birds. This variation seems to act somewhat like a wave on the ocean, the 300-eggers being the very crest of the wave, with individual hens being located all the way from the crest to the trough at the bottom of the wave. Careful



The Sure Way to Success is to Feed Well-bred Stock Well.

ords made in 1923 and 1924 at the Michigan Egg Laying Contest, by sisters and half-sisters of our 300-egg hens in the pens which we bred and which won first and third places respectively. The high hen in our first pen at the contest laid 285 eggs and easily might have laid 300 or more eggs had she been kept at home and handled just as her 300-egg relatives were managed.

While it is interesting to breed and develop a few 300-egg hens, the thing which counts from a financial standpoint is to be able to produce a flock with a large percentage of fairly high producers which makes for a high flock average. From the inquiries which I have had requesting information regarding how high record hens are developed, I am led to believe that far too many people think that there is some magic system of feeding or management which if carefully followed will result in high record hens.

While proper feeding and management of the future high record hens from a day-old chick to the laying of the first egg and throughout the entire year's production, is of great importance, no system of feeding or management yet developed would cause some hens to be high producers. What, then, is the one biggest factor in the developing of high producing hens? Breeding is the one most important factor in the production of high producing hens. A well bred chick, poorly fed and managed, may develop into a runt and be a poor producer; on the other hand, no amount of good feeding or care will develop the poorly bred chick into an egg laying contest winner.

Our 300-egg hens, the hens in our contest pens, or any of the better than 500 200-egg hens at present on our plant at Paw Paw, did not just happen. They are the result of breeding for a great many years for the purpose of securing high flock average.

The breeding referred to was done prior to three years ago, by the Late D. Tancred, of Kent, Washington.

breeding for a long period of time seems to bring the crest of the wave and the trough closer together. In other words, careful breeding over a period of time has a tendency to maintain the production of the highest producers of a given generation on a level with the production of highest producers of the preceding generation, to increase the percentage of the whole number of individuals who make high records and to raise the production of the lowest producers.

At present, too often a hen, to most people, is just a hen, and the question is not even raised as to what is back of the hen in the way of breeding. Everyone interested in the chicken game, from the farmer with the small flock, to the big commercial poultry man, must have better breeding back of the birds in their flocks if they are to increase their profits. Not only must they have better breeding for production, but they must have better breeding from the viewpoint of vigor, health, size of bird and size and type of egg.

To have better breeding back of the birds which are to make up our flocks in three or four years, someone must now be making a careful study of a large number of promising individuals, that those hens which show by their trapnest records and general make-up to be superior individuals may be used as breeders for the production of males to head the flocks from which eggs for hatching will be saved.

To study individual birds as outlined above, is very interesting, but to date has not been very profitable in Michigan. The farmer or commercial poultry man cannot afford to do this highly specialized work for himself, but he can get all the benefits at a low cost by purchasing males with intense egg breeding back of them from the breeder who does specialize in the production of the same.

Who can say what the value of potent egg-bred males may be? Three years ago I paid Mr. Tancred \$40 (Continued on page 442).

Zone of Better Heat Circulation

How a Furnace Heats Depends On How It's Made

THE way the outside casing of a furnace is made, as well as how the inside heating unit is designed and built, determines how well the furnace will heat.

The Mueller Convactor heats better than the ordinary pipeless furnace, because it has a much wider, roomier throat to accommodate a large volume of continuously recirculating warm, moist air. This means larger capacity, more comfortable and more uniform heat. Because of the large warm air outlet, the heat rises in gently rolling volume instead of spurting up in a swift stream, as is the case with the pipeless furnace with a narrow, restricted throat.

Because of its shape, the Convactor radiator provides an exceptionally large area of hot contact surface for the air to rub against as it rises through the inside air passage of the Convactor. Full value is secured from fuel burned — no heat is lost. A larger volume of air is heated and circulated.

There are no openings in the Convactor casing to admit musty air from cellar or basement into the rooms above.

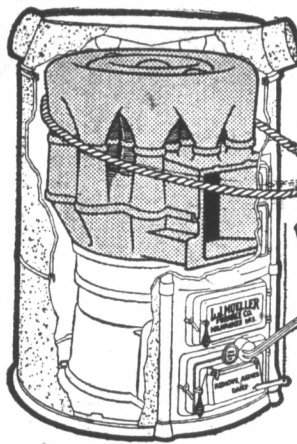
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The Mueller Double Radiator Warm Air Furnace, here illustrated, will give the most satisfactory, economical service. This furnace has practically twice as much direct heating surface as any other warm air furnace of equal grate area. Consequently it produces **MORE HEAT with LESS FUEL** — is tons of coal cheaper than the ordinary furnace. Burns any kind of fuel.



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State Capitol News

Our Lansing Correspondent

THE reapportionment fight has now centered in the house of representatives. The senate, with but a single vote to spare, passed Senator Wood's amended bill giving Wayne county seven instead of five seats in the upper branch of the legislature. The final vote in the senate was preceded by two hours of intense debate and intricate parliamentary procedure.

The Detroit members sought amendments to give Wayne county eight or ten seats, and when every effort in this direction was defeated, they threatened to vote against the seven-man bill, declaring it was unconstitutional. Senator David Butler, of Fostoria, presented an opinion from Attorney-General Dougherty declaring that the bill to give Wayne seven seats would probably be held constitutional by the courts.

The house committee on apportionment is struggling with Representative Charles Culver's proposal to give Wayne twenty-five instead of fourteen house members. If either of these bills ever get out of committee, there will be a merry fight on the floor of the house.

* * *

THE administration's trunk line highway plans have fared well at the hands of the legislature. After no little discussion, the Atwood bill, authorizing the laying out of 500 miles of additional trunk line mileage, the routes to be determined by the state highway commissioner and the state administrative board, has passed both branches of the legislature.

Despite the determined opposition of the Wayne county delegation, and Senator Charles Herrick, of Fenwick, the senate approved by a vote of twenty-three to six the so-called Ming bill which provides that on and after January 1, 1926, the state will take over the construction and maintenance of the entire trunk line highway system of Michigan and relieve the counties from any burden, financial or otherwise, in connection with trunk line highways.

* * *

FROM the standpoint of Michigan motorists, probably one of the most important bills now pending in the legislature, is the Richardson bill which is designed to reduce accidents and fatalities at grade railroad crossings. This bill, which passed the house by a vote of eighty-two to twelve after an extended debate, would allow the state public utilities commission to designate especially dangerous grade crossings and to compel the railroad companies to provide standard stop signs at crossings so marked, and would require all motorists to bring their cars to a complete stop before crossing such tracks.

The Richardson bill is a substitute for three or four considerably more drastic measures introduced earlier in the session. It is said to have the backing of the railroad owners and the employees as well. The motoring public is no doubt equally interested in some sensible plan to prevent the frightful toll of human life now taken by the grade crossing accidents in Michigan.

* * *

PROTECTION of Michigan farmers against those who would defraud them by selling drugs and compounds of cheap ingredients at exorbitant prices, for stock feeds and tonics, is sought by a bill introduced by Senator Frank L. Young, of Lansing, and said to have the backing of the State Department of Agriculture.

This bill provides for the regulating by licensing of every manufacturer or firm dealing in live stock remedies in Michigan. The term, "live stock remedies," is held to include all condi-

mental feeds, medicated stock foods, medicinal stock foods, stock food tonics, stock powders, condition powders, conditioners, animal regulators, proprietary medicines, and any preparation of a like nature, in either solid or liquid form, used for animals. It does not apply, however, to remedies prepared and prescribed by a veterinarian who is regularly licensed in Michigan, for use in his own practice.

Before any manufacturer or other person could sell any of these remedies above mentioned in Michigan, it would be necessary for him to file with the state commissioner of agriculture a sworn certificate showing the name of the manufacturer, the brand or trade-mark of the remedy and the minimum net contents of the package or bottle containing it. It would also be necessary for him to furnish the department with a sample of the remedy accompanied by an affidavit to the effect that the sample was exactly the same as the product to be marketed. The names of all ingredients would have to be printed in English, rather than in Latin or some other foreign language.

If the commissioner of agriculture approved the sale of any such product the dealer or manufacturer intending to sell it would be given a license for which he would pay \$25, renewable each year. At least one sample of every product so accepted would have to be analyzed by a state chemist.

* * *

WHEN it became evident that Representative McKinnon's bill to change the name of the Michigan Agricultural College would not meet with much support in the house, Senator Norman B. Horton, of Fruit Ridge, determined to find out the reception of such a proposal in the senate. He has introduced a bill to call the East Lansing institution the Michigan State College of Agriculture and Applied Science.

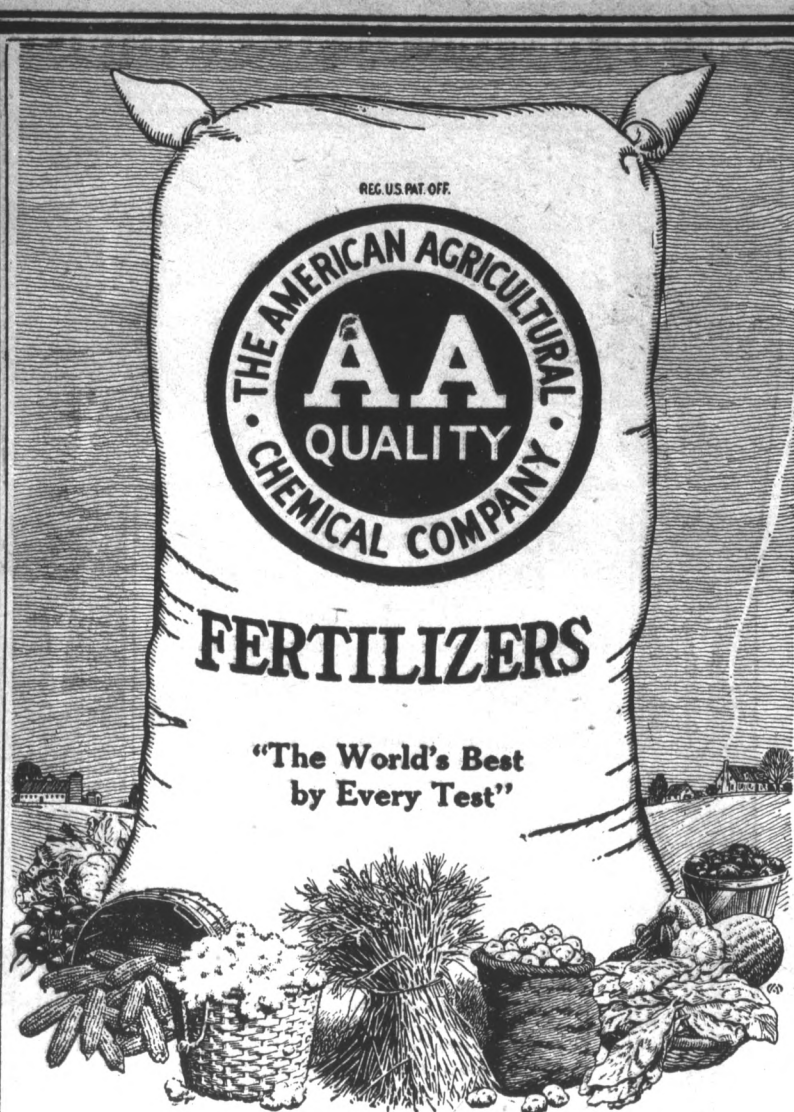
* * *

AT last it appears that the insistent agitation which has been brewing for many months for some reform in the matter of distributing the primary school interest fund bids fair to bear some definite fruit. It will be remembered that the Meggison bill, or Escanaba plan, which proposed to distribute this school fund as nearly as possible in proportion to the needs of the several school districts in the state, passed the house in 1923, but was smothered in the senate committee.

* * *

THE earnest discussions which have been carried on through the columns of the Michigan Farmer and elsewhere regarding changes in the Michigan apple grading law have finally culminated in the introduction of a bill by Senator George Leland, of Fennville, which would repeal Act 266 of the Public Acts of 1923, the present law providing for seven apple grades, and would substitute four grades as follows: Michigan Fancy, Michigan A, Michigan B Grade, and Commercial Grade. The seven grades provided by the present law are: Michigan Standard Fancy, Michigan Standard A, A Drops, Michigan Under Color, Michigan Orchard Run, Michigan B, and Michigan Unclassified.

If Senator Leland had waited for the apple growers to reach an agreement, no apple grading law would have been introduced, as some of the growers wanted more grades, while others insisted that they should be simplified and reduced in number. Senator Leland being an experienced apple grower, coming from Fennville, which ships more apples than any other point in the state, finally took the bit in his teeth and drafted his own bill. It has already been reported favorably by the senate committee on agriculture.



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Send For Isbell's 1925 Catalog

Fertility Facts

By O. B. Price

THE farmer should be interested in greater profits per acre instead of greater yields per acre. In either case the fertility of the soil should be maintained.

* * *

There is a place for fertilizer on every crop, but to be profitable the proper fertilizer must be used and the proper amount must be used. When we consider that an application of 300 pounds of fertilizer per acre only allows about one ounce to every nine square feet, it can be clearly seen that an available form must be used and the proper ratio of ingredients must be present.

* * *

A soil is not too low in plant food to germinate seed, for a germinating seed uses only the plant food stored within the seed coat. When the little roots begin to appear then it begins to draw on the supply in the soil. If there is insufficient amounts present the plants will produce less fruit of inferior quality, or none at all.

* * *

Most of the fertilizers are applied at planting time, either broadcast or with the seed. When broadcast more fertilizer should be used. Over a period of years this is considered best. Large applications in the row is not advisable because it is liable to prevent proper germination of the seed. Under average conditions 250 to 300 pounds is used when broadcast, and seventy-five to 150 when applied in direct contact with the seed. Some crops, such as sugar beets, potatoes and certain truck crops, should have from 500 to 700 pounds per acre broadcast. It is not advisable to apply over 250 pounds per acre when applied in direct contact with the seed, and highly nitrogenous materials should never be applied in direct contact with the seed.

* * *

Serious injury to germination has been observed where highly concentrated nitrogenous materials have been applied at a rate as low as sixty pounds per acre with the seed. This should not discourage the use of concentrated nitrates and ammoniates, but they should be used as top-dressing, broadcast over the entire area. On the lighter types and poorer heavy types this top-dressing should be done in the spring on rye and wheat. On oats and barley it can be done about the time they begin to come through the ground. In using these materials be sure to know the soil reaction. On alkaline or neutral soils either sodium nitrate or ammonium sulphate can be used, but on acid soils sodium should be used unless lime is used in conjunction.

* * *

Some farmers are tempted to buy low grade fertilizers, or some insoluble form, because the price is cheaper per ton. After knowing the plant food requirements of a crop the next consideration is to buy a fertilizer with the elements in an available form. Since phosphoric acid is the main requirement on most soils, phosphoric acid in Michigan. Rock phosphate, white not used extensively in Michigan, does attract the attention of some farmers. It is greatly inferior to acid phosphate in Michigan when compared to the return in crop values. The returns from acid phosphate as compared to rock phosphate range from three to six times as great when used through a complete rotation.

* * *

Whenever in doubt about the proper fertilizer to use for a particular crop, keep in mind that your State Agricultural College is always ready to give you their advice, based on actual field tests conducted over the entire state.

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Exceptional dependability has been a characteristic of Dodge Brothers Motor Car since the day the first of these sturdy cars was marketed.

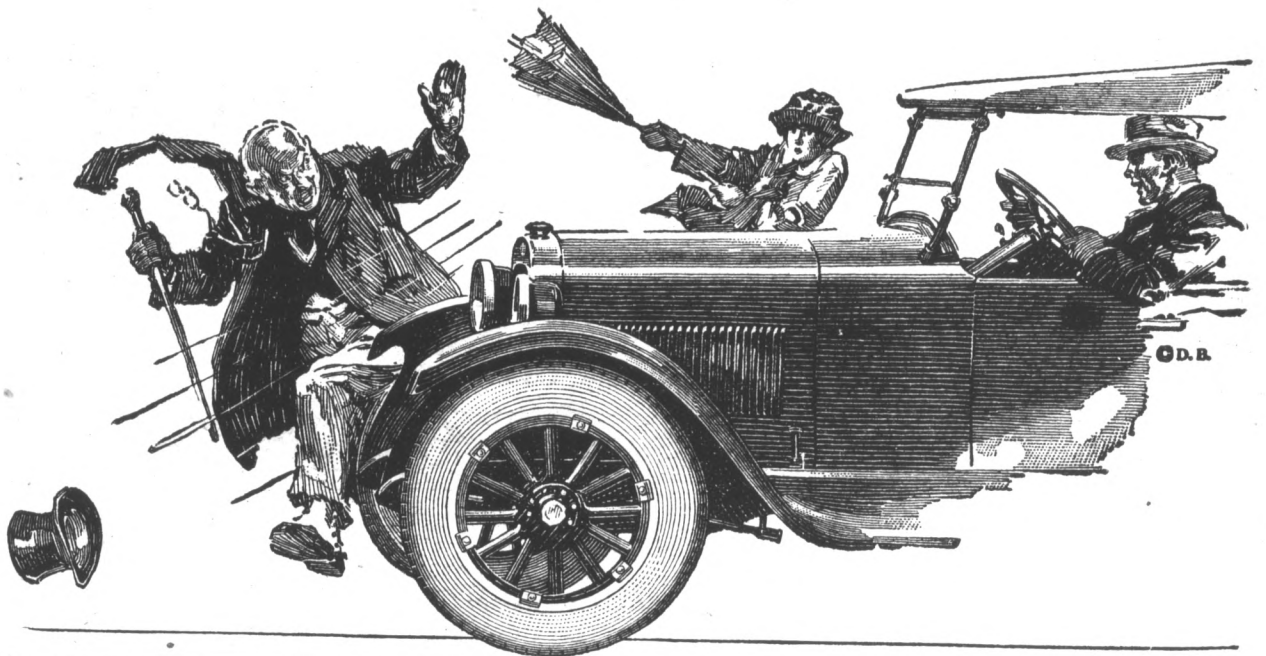
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You buy more than bright paint and varnish when you get a Planet Jr. No. 8 Cultivator. You buy a horse-hoe that cultivates clean and thoroughly for years and years to come. Its superiority is so plain that every farmer who appreciates clean, thorough work wants a Planet Jr. No. 8, once he sees it. That's why it is considered the most popular and widely used five-tooth cultivator in the world.

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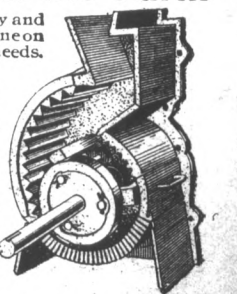
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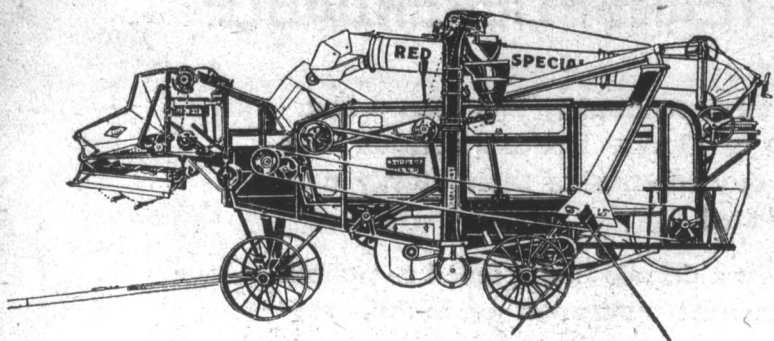
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Ready to Thresh and keep on Threshing

No expert separator man is needed to run the Nichols & Shepard Separators. They are ready to thresh when they leave the factory, and to keep on threshing for years to come.

12 Hyatt Roller Bearings running on case-hardened, smooth steel shafts, cut down the power needed to pull the separator, make oiling easy, eliminate hot-boxes and keep pulleys and shafts in line.

It is no trick to run the Nichols & Shepard Separator; the four thresh-

men, the *Big Cylinder*, the *"Man Behind the Gun,"* the *Steel Winged Beater*, and the *Beating Shakers*, make sure that you will save all the grain.

Built in large numbers—this high quality Nichols & Shepard Thresher is now offered at a price that places it within your reach. A size for every tractor—from the Fordson up.

Nichols & Shepard Tractors 25-50 Oil-Gas 2-cylinder heavy duty. Allis-Chalmers 4-cylinder 15-25 and 20-35 Tractors for every farm need.

NICHOLS & SHEPARD COMPANY

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Send me the book "How a Good Thresher is Built."

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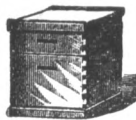
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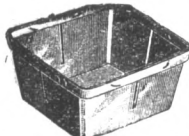
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Keep Musterole on the bath-room shelf

Years ago the old-fashioned mustard plaster was the favorite remedy for rheumatism, lumbago, colds on the chest and sore throat.

It did the work all right, but it was sticky and messy to apply and my how it did burn and blister!

The little white jar of Musterole has taken the place of the stern old mustard plaster.

Keep this soothing ointment on your bathroom shelf and bring it out at the first cough or snuffle, at rheumatism's first warning tingle.

Made from pure oil of mustard, with the blister and sting taken out, Musterole penetrates the skin and goes right down to the seat of the trouble. To Mothers: Musterole is also made in milder form for babies and small children. Ask for Children's Musterole.

35c and 65c jars and tubes; hospital size, \$3. The Musterole Co., Cleveland, Ohio



BETTER THAN A MUSTARD PLASTER

OUR SERVICE DEPARTMENT

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

OPTION EXPIRES.

We have a farm on which my father gave a man an option in January, 1909. Nothing was heard from this except that in November, 1910, he wrote my father and told him he elected to purchase the farm. No money transactions were made and nothing was done until lately when the man asked us our price, and we said \$12,000. He came again and offered us \$5,000, which he said was the option price. The option referred to above was only for eleven months duration. Do we have to accept the \$5,000 price he offers?—N. V.

Options are strictly construed and must be strictly performed to entitle the optionee to the property. It is manifest that there is no duty now to convey, the option having expired.—Rood.

HOW TO SOW GRASS SEED.

I have five acres of fall-plowed corn stubble on which I intend to sow oats this spring and seed down. Which would you favor, to sow the grass seed ahead of the drill or after the drill? What proportions should this seed be mixed, as I intend to take one crop of hay off, then pasture it.—H. S.

Excellent results are usually secured by sowing the grass seed just ahead of the drill. When this method is followed the grass seed is covered from one-half to three-fourths of an inch deep and the oats covered from one inch to one and one-half inches deep, provided the seed-bed has been well firmed.

In case the drill is so constructed that it is not possible to seed ahead of the disc, the grass seed may be covered by attaching chains to the drill, or it may be covered with spike-tooth drag.

Under the conditions you mention, would recommend seeding consisting of the following: June clover, four pounds; alsike, two pounds; timothy, four pounds; Kentucky bluegrass, six pounds. The above amount for one acre.—C. R. Megee.

AMOUNT OF POTATOES TO FEED.

Will you please inform me as to how many potatoes a day for horse or cow I can feed? I have a lot of potatoes and no sale for them.—J. G.

It is profitable to feed about the same amount of potatoes to cows as you would of corn silage. Let us compare the food value of these feeds:

Potatoes contain 1.1 per cent of protein, 15.7 per cent of carbohydrates, and 0.1 per cent of fat. Silage contains 1.4 per cent of protein, 14.2 per cent of fat.

It will be seen that silage is only a little richer in protein and not quite so rich in carbohydrates. The protein is the more valuable nutriment but the difference is small. Now the standard ration of silage is about thirty pounds and one can safely feed thirty pounds of potatoes, or a peck night and morning per 1,000 pounds live weight. Cows may not eat that much at first. One should begin by feeding a few and gradually increase to a full ration.

SEEDING ALFALFA AFTER BARLEY.

Would like some advice in regard to seeding alfalfa with barley. I have three acres of good soil, medium heavy loam, well drained, that I want to sow to black barley and seed to alfalfa. How much barley and alfalfa should be sown per acre, and should they both be sown at the same time? What variety of alfalfa would you advise? How much hydrated agricultural lime is equivalent to two tons of ground limestone?—H. J. S.

Barbless barley makes an excellent nurse crop for alfalfa. It does not shade the land as many other varieties and has a stiff straw so that it does not lodge badly. This barley may be sown at the rate of six pecks per acre.

Grimm alfalfa is very dependable under Michigan conditions. Ontario Variegated and Northern Grown Common are usually successful. From eight to ten pounds of certified Grimm seed per acre is usually sufficient, while from twelve to fourteen pounds of other seed is needed.

It is advisable to seed both the alfalfa and barley at the same time. If you have a grain drill with a seeder attachment, would suggest broadcasting the alfalfa seed just in front of, or on to the discs. When this method is followed the alfalfa seed is covered from one-half to three-fourths of an inch deep, while the barley is covered from an inch to one and one-half inches deep, provided, of course, that the seed bed has been well firmed.

Finely ground limestone has about three-fourths the neutralizing ability of hydrated lime. It would require between 2,900 and 3,000 pounds of hydrated lime to equal two tons of finely ground limestone. Owing to the high price of hydrated lime it is usually much more economical to apply ground limestone.—C. R. Megee.

DIVISION OF PROPERTY.

My father died January 24, 1923, leaving bonds and money in the bank amounting to \$6,700, and no will. He was divorced. There were four children, one has not been seen or heard of for eight years. The court at Chicago divided the money for the three children after deducting expenses, but for the missing heir they turned it over to the Cook county treasures and I am told that they keep this money indefinitely. Would like to know if this is possible.—M. B.

Disposition of personal property is determined solely by the law of the place of residence of the deceased at the time of his death, subject only to the claims of creditors living or debts contracted at the place where the property is administered. Presumably this depends on the law of Illinois, and is purely statutory. The place of residence of the deceased is not given.—Rood.

MINORS IN POOL ROOMS.

Is there any law in Michigan which forbids high school students to play pool in the city pool rooms?—M. R.

Compiled Laws 1915, Sec. 7223, makes it a misdemeanor for the operator of any pool room to permit any minor attending school, public, private or parochial, to remain in any pool room; and by the same statute it is a misdemeanor to permit a minor under seventeen years to remain in such a place though not attending school.—Rood.

BURIAL REGULATIONS.

Do you have to employ an undertaker to conduct a funeral, or would a person get a casket and have some other person conduct a funeral? I have been told that the law is that one has to have a licensed undertaker.—J. J. M.

Embalming can be done only by licensed embalmer; but it is not necessary to have a body embalmed before burial; nor is it necessary to have a casket. Neither funeral ceremony nor burial in a cemetery are legal requirements. A few years ago a man was indicted in Kentucky for the burial of his child in a pasteboard box in a woodlot without funeral ceremony; and the court declared the funeral ceremony to be a religious rite, which the constitution forbids being established by law; and in several cases it has been held that laws and ordinances forbidding the burial of bodies outside of established cemeteries are unconstitutional restrictions on the use of property, and void.—Rood.

Start Reforestation Work

Cloverland Leaders to Begin Work Immediately

By L. A. Chase

THIS was the unanimous sentiment of the directors of the Upper Peninsula Development Bureau at their meeting at Marquette, March 14. A definite proposal for undertaking reforestation on a small but effective scale was made at this meeting by Mr. E. G. Amos, assistant state leader of county agents, and was enthusiastically adopted by the directors.

Mr. Amos' proposition was this: Secure eleven three-acre plots typical of as many sections of the peninsula, and set them out to trees—spruce, Norway, white pine, Jack-pine, etc., 1,200 to the acre. The trees for this planting can be secured, it has already been determined, from the Michigan Agricultural College, the State Conservation Department, or the United States Forest Experiment Station at Cloquet, Minnesota, without charge. The only expense would be that for transportation by express and for the planting after arrival. The bureau promptly voted an appropriation of \$500 to cover these incidental expenses.

The Michigan Agricultural College Extension Department will be responsible for supervision of planting and care, and for the collection of data relating to each plantation. It was thought there would be no difficulty in securing the land and several land-owners who happened to be present immediately volunteered a grant of land for the purpose in three or four counties, one owner offering as much as forty acres in each tract.

The idea underlying this proposal is to show the inhabitants of the peninsula and the tourists passing through, what such demonstration plots can accomplish in a very few years if approved forestry methods are adopted. They will serve as the best kind of propaganda for a better program of reforestation throughout northern Michigan. The Upper Peninsula Development Bureau cooperating with the college, will undertake to see that each plot is properly marked by the roadside so that all who pass may read that there is a forest demonstration plot there, whose inspection will reveal what reforestation is good for.

It is admitted that there remains much about tree growth in this section that is undetermined, and the college specialists will make it their duty to measure and collect the results of their observations of these plantations as a basis for large scale work hereafter. The public, it is believed, will be impressed by what they see and what the technical data thus gathered in will show, and a healthier sentiment will be developed in consequence.

It is proposed to start the work this spring. It is already known that technical assistance will be forthcoming from the expert staffs of the state and United States forest services. While in themselves little reforestation will be accomplished in comparison with the vast amount that is required to re-timber the cut-over country, the edu-

cational results will be incalculable.

Attention was called at this conference to what had been accomplished on the farm of Mr. Frank O. Lowden, of Illinois, where white pines planted twenty years ago were now of nearly marketable size; and Mr. Kroodsmma, of the Michigan Agricultural College forestry department, related how a farmer in Allegan county, whose farm he recently visited, had planted white pines on sand dunes on his farm that were altogether worthless and were blowing over his wood lands, and how these trees after a few years, had attained a height of eight or ten feet, stopped the sand from drifting about, and were destined soon to have a market value of their own. Attention was called to a similar plantation near Ishpeming, where the trees were not so high because of the shorter growing season yet showed a fine growth in the few years since planting was undertaken. It was also brought out that the Cleveland-Cliffs Iron Company proposes to plant 300,000 evergreens on Grand Island, Lake Superior, this summer.

All this may be a drop in the bucket, but it is a real start in the right direction. More timber land rather than more agricultural land is what is wanted right now. This is one way to get it. It will remain necessary to keep out the fires. One land owner told of a plantation of trees in the southern part of the peninsula that had been partly ruined by careless setting of fire in the vicinity. It is believed, however, that persons who see what these demonstration plots can accomplish if left free to grow, will henceforth be more careful about setting fires in the woods and brush. Farmers have a real interest in this project.

THE BEST SPRAYING MATERIAL?

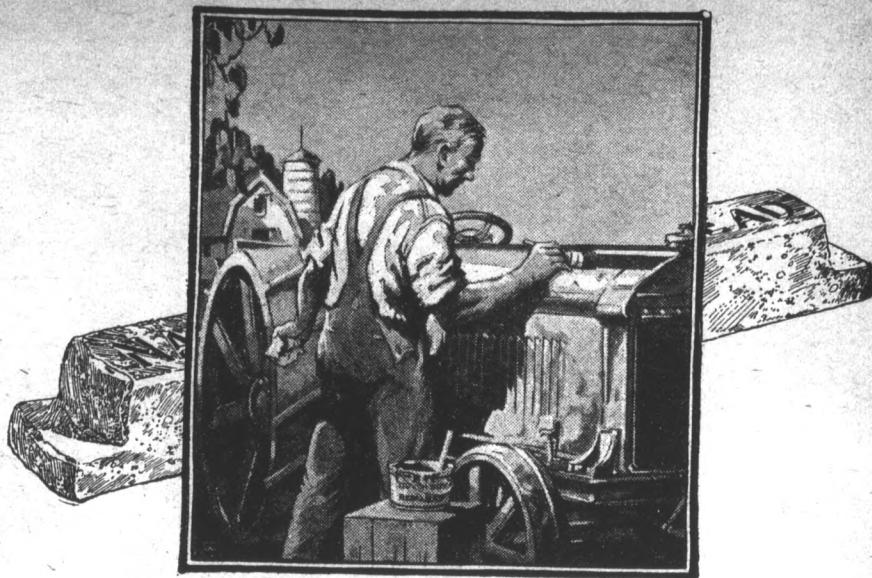
(Continued from page 419).

lime-sulphur or copper that each tree got under every combination of strength and dosage. For example, compare items one and four. Both rows received the same number of gallons per tree of dilute material but since the material used on number four was just twice as strong as that for number one, it is very evident that number four got twice as much actual lime-sulphur as number one.

Very careful and complete observations were made on scab control, finish of the fruit, and foliage injury. It may be pointed out here that there are two definite types of injury which may result where lime-sulphur and lead arsenate are used. One is the "yellow leaf" type which was very common in 1923. It is thought by many to be the result of water soluble arsenic rather than lime-sulphur. The injury which was prevalent this year was altogether different, it being of a "brown leaf or scald type, and undoubtedly was a true lime-sulphur injury. There may be other types of injury but I would consider these the

Table 1—Strength of Material and Dosage Tests

Material and Strength.	Applica- tion	Ratio of Active Material	Russet—Per Cent.			
			Per Cent Scab	Light	Medium	Heavy
Weak lime-sulphur ¼ gal. in 50.....	Light	1	23	12	0	0
	Medium	2	9	12	0	0
	Heavy	3	5	13	0	0
Strong lime-sulphur 1½ gal. in 50....	Light	2	8	12	0	0
	Medium	4	3	27	0	0
	Heavy	6	2	28	10	1
Weak Bordeaux 1-2-50	Light	1	20	38	50	7
	Medium	2	7	26	50	20
	Heavy	3	1	12	52	36
Strong Bordeaux 3-6-50	Light	3	2	7	49	40
	Medium	6	0.3	4	33	62
	Heavy	9	0.6	10	36	53



Red-lead helps man win the greatest war of all time

THIS war is between man and Nature. What man builds, the forces of Nature try to destroy. Nature is everlastingly striving to return all materials to their original and most stable form.

Man uses in his structures, among other materials, the strongest metal he has—steel. Opposed to it is one of Nature's strongest elements—moisture-laden air. The air attacks this metal which man has won from Nature and tries, by what is known as rusting, to draw it back to its original state. If the metal is left to face the attack alone, it soon weakens. It crumbles—is destroyed.

This battle with rust goes on about your own farm every minute of the day. You have steel in metal equipment, machinery, plows, metal gutters, various farm implements.

With red-lead, made from the metal, lead, you can make a covering for your steel through which air and moisture cannot penetrate. With red-lead your steel and thus your farm equipment give much longer service. When you give your metal this complete protection, you do only what engineers, building contractors, railroads, steamship companies and the U. S. Navy do for all the steel they use.

Follow their example further and use Dutch Boy red-lead.

Dutch Boy red-lead is pure and is highly oxidized. It has stood all tests for durability. It makes a hard, tenacious film that is still elastic

enough to expand and contract under heat and cold without cracking. Because it is exceedingly fine, it brushes out evenly and has unusual covering power. It gives full and economical protection to the metal surface it covers.

Dutch Boy red-lead, ready for mixing with pure linseed oil, comes in the natural red-lead color. It can be shaded to browns, greens, black, and other dark colors as desired.

Free paint booklet

We shall be pleased to send you a booklet, "The Handy Book on Painting," a storehouse of general paint facts and formulas. A section is devoted to the protection of metal surfaces. It tells how to prepare the surface for painting, how to mix and apply the paint. We shall also be glad to give you any specific information on any particular painting problem you may have.

Other Dutch Boy Products

In the famous Dutch Boy series of products, besides red-lead, there are white-lead, flattening oil, solder, linseed oil and babbitt metals.

National Lead Company, in addition, makes lead products for practically every purpose to which

lead can be put in art, industry and daily life. If you desire specific information about any uses of lead or have any special paint problem, write to our nearest branch.



Save the surface and you save all—Red-lead.

NATIONAL LEAD COMPANY

New York, 111 Broadway; Boston, 131 State Street; Buffalo, 116 Oak Street; Chicago, 900 West 18th Street; Cincinnati, 659 Freeman Avenue; Cleveland, 820 West Superior Avenue; St. Louis, 722 Chestnut Street; San Francisco, 485 California Street; Pittsburgh, National Lead & Oil Co. of Penna., 316 Fourth Avenue; Philadelphia, John T. Lewis & Bros. Co., 437 Chestnut Street.

Only Firestone Builds BALLOON Gum-Dipped CORDS



Farmers everywhere are praising the comfort, safety and economy of Balloon Gum-Dipped Cords—advantages made possible by the special Firestone process of gum-dipping.

Gum-dipping insulates every fibre of every cord with rubber, giving extra strength to the light, strong, flexible side walls to stand the extra flexing strain.

Specify Gum-Dipped Balloons—Full-Size—built only by Firestone. The nearest Firestone dealer will make the changeover quickly and at low cost—with liberal allowance for your present tires.

Firestone

MOST MILES PER DOLLAR

Mention the Michigan Farmer When Writing to Advertisers



"It doesn't pay to take chances on seed you don't know, even if the tests on the tag do look all right. The tag doesn't tell the whole story, by a long shot.

"Of course, I always look at the tag and it has to be right, but I pay more attention to the brand.

"If it's 'Pine Tree Brand,' I know I'm safe.

"By the way, Neighbor, if you haven't got your copy of '7 Lessons in Judging Seed' yet, send for it today. It's free and you'll find it full of real information, worth dollars to any farmer. Write to



THE ALBERT DICKINSON CO.

CHICAGO MINNEAPOLIS
BUFFALO BOSTON PITTSBURGH
NEW YORK BINGHAMTON

"PINE TREE"

FARM SEEDS
FOR YOUR PROTECTION

most important. The foliage injury from Bordeaux was of the typical yellow leaf kind, but the season as a whole was not favorable to Bordeaux foliage injury. There was only one time, about August first, when Bordeaux injury on the foliage developed in this orchard.

I think now with these explanations that we are ready to answer some of the questions asked a little earlier. Will weaker lime-sulphur or Bordeaux control scab? The results show (Table 1) definitely that with equal dosages of weak and strong lime-sulphur and weak and strong Bordeaux that the control of scab was less complete in every instance with the weaker material. The difference between a light application of weak material and a light application of strong material was always greater than the difference between a heavy application of weak

properly handled, would make beautiful rugs or garments.

The following chemical process has been recommended as a simple and practical method of home tanning. For the inexperienced it is best to start with the less valuable pelts, because the first attempts may prove a failure. Not that the method is complicated, but rather that it requires more patience and attention than many will give.

If the pelt is dry it must be softened for several hours in running water or in salt water mixed in the proportion of half a pint of salt to a pail of water. It must be taken out when it becomes pliable as further soaking will loosen the fur. Next the skin should be fleshed, in much the same manner as a trapper fleshes his pelts. The skin should be placed over a smooth fleshing beam, which every trapper knows

Schwab on Farm Machinery

IN a recent address before the International Kiwanis Club, Chas. M. Schwab, president of the United States Steel Corporation said in part:

"Agriculture is a necessary backbone of a sound national development. Agriculture is a stabilizer in times of stress. In the last twenty years much attention has been given to machines in factories. The next few years will see more scientific attention given to machinery on the farm and to farming as a big constructive element of our community life."

Finley P. Mount, president of one of the largest farm equipment manufacturing concerns in the country, recently said, "Agriculture is the backbone of the nation. Farm machinery is the spinal-cord."

material and a heavy application of strong material. This was true to about the same degree with both Bordeaux and lime-sulphur. The medium and heavy applications of strong lime-sulphur, the heavy application of weak Bordeaux and all applications of strong Bordeaux gave what might be called practically complete control of scab. The scab spots on the apples from these plots were mostly so small that they would not be detected in commercial grading. This answers rather definitely another one of the questions: How far will scab control keep pace with increased dosage? The answer is that if the material is strong enough that there is a practical limit to the amount of material to be used.

Another question: What effect will strength of material and dosage have on the finish of the fruit? The amount of russet produced by weak lime-sulphur was not large. With the strong lime-sulphur the amounts were greater and increased rather consistently with increases in dosage. The russet also increased consistently according to the ratio of active material. With Bordeaux, nearly all the apples show russetting in some degree, and the figures show a very interesting condition as to the degree of this injury. The amount of "medium" russet remains fairly constant for both strengths and all dosages. The percentage of "light" russet starts rather high with the light application of weak Bordeaux and decreases noticeably as we progress to the heavier applications of strong. On the other hand, the percentage of "heavy" russet begins quite low with the light application of the weak, and increases regularly through to the heavier applications of the strong.

TANNING FURS AT HOME.

THERE are various animals on every farm, such as woodchucks, squirrels, moles, dogs, and cats and rabbits, whose furs are scarcely worth the trouble of marketing, but when tanned can be made into very beautiful and useful articles for the home.

It is not advisable, however, to attempt home manufacture of any of the valuable furs, but in the case of the cheaper furs and those for which there is no market, it is a waste to throw the animals away when their furs,

how to make, and all surplus flesh and fat scraped off with a dull hunting knife or other instrument. To complete the fleshing process, all grease must be removed. This is best done by rubbing hot sawdust or corn meal over the pelt side.

The skin is now placed in a pickling solution made as follows: In a wooden pail or in any glass or earthenware basin, mix one quart of salt in one gallon of hot water, let cool and slowly pour in one ounce of commercial sulphuric acid. The skin should be sunk in this solution and stirred around occasionally to insure thorough soaking. A woodchuck skin or other skin of equal size will tan in about two days, but a longer time will be necessary for larger skins.

The pickling solution will preserve the skin and will not injure it if left in over time. When removed from the pickle the skin must be washed thoroughly. It should be scraped and shaken of all surplus fluid and soaked for an hour in a pail of lukewarm water to which has been added a handful of washing soda. When removed from this, rinse well in clean water and hang up to dry.

The final stage of the tanning is the softening process, which is dependent only on your supply of elbow grease, and must commence when the skin is about half dry. The pelt side should be rubbed and pulled over the square edge of a plank; every part of the skin must be rubbed and worked; any hard spots may be softened by rubbing with the pickling fluid. This rubbing and pulling must be kept up until the skin has been worked dry, then the pelt side should be rubbed with tallow or other animal oil; all excessive grease should be removed by hot corn meal. Brush and comb out the fur and the skin is ready.

The Michigan Department of Agriculture requires all fertilizers sold in the state to be licensed with them. Among other things, it requires that the name or brand and analyses be printed on each bag. This is for the protection of the farmer and reliable fertilizer companies. Always insist on knowing the analysis before buying, buy only high analysis goods and thereby get your units of plant food as cheaply as possible.

Radio Department

SUMMER RADIO TO BE GOOD.

THE miserable squeaking and howling of the radio set during the summer months will soon be a thing of the past.

Radio engineers have been trying to develop static filters of all descriptions to be used in connection with receiving sets, but the cure for the static pest has not been discovered in that quarter. The solution to the problem has been found in the form of increased power at the broadcasting station.

Until very recently, but few broadcasting stations employed more than 500 watts or one half kilo-watt. During the summer months it became more or less difficult for even these stations to pound through the static, but now we have a number of stations employing 1,000 watts power, and at least one, perhaps more, which is now using 1,500 watts and which is equipped to use 5,000 watts just as soon as the government will permit it to do so.

With 1,500 watts power, a station can come booming through any kind of static and we have every reason to believe that radio receiving this summer will be just as good as it was last winter. Extra power will do much to improve reception and general satisfaction with the receiving apparatus.

RADIO PLAYS BIG PART.

RADIO played a big part in the recent tragedy in Sand Cave where Floyd Collins, the famous cave explorer, rests in his rock tomb. Both broadcasting and receiving sets did their share in informing millions of radio listeners of the developments in the attempts to rescue the most-talked-of man of the present age.

Telephone lines carried the news to the broadcasting stations by way of the newspaper offices. One radio editor from a Cincinnati paper covered the story of his paper and his graphic descriptions of his experiences inside the cave were broadcast.

Not only was radio used to broadcast news of the rescue work, but a radio receiving apparatus was constructed and used to determine if Collins were alive or dead.

WKAR PROGRAM.

Monday, March 30—12:00 noon, weather forecast; 7:15 p. m., agricultural extension school; 8:00 p. m., educational program (M. A. C. faculty).

Tuesday, March 31—12:00 noon, weather forecast; 7:15 p. m., agricultural extension school.

Wednesday, April 1—12:00 noon, weather forecast; 7:15 p. m., agricultural extension school; 8:00 p. m., musical program.

Thursday, April 2—12:00 noon, weather forecast; 7:15 p. m., agricultural extension school.

Friday, April 3—12:00 noon, weather forecast; 7:15 p. m., agricultural extension school.

Saturday, April 4—12:30 a. m., special dance program (Pastime Players).

OTHER RADIO PROGRAMS.

WWJ, Detroit News, Detroit, Mich., 352.7 meters. Physical exercises daily at 8:00 a. m. Talk on "Tonight's Dinner" at 9:30 a. m. Weather forecasts daily at 10:25 a. m., Arlington time at 11:55 a. m. Musical program every noon. Detroit News Orchestra daily at 3:00 p. m. Market reports at 3:55 p. m. Dinner concerts at 6:00 p. m. and concert programs at 8:00 p. m. daily except Saturday and Sunday. Sunday services at 11:00 a. m. and 7:20 p. m. Detroit News Orchestra every Sunday afternoon at 2:00.

WCX, Detroit Free Press, Detroit, Michigan, 516.9 meters. News bulletins daily at 2:00 p. m. 2:15 p. m., live stock and municipal markets quotations. 2:20, government weather reports. Detroit and Chicago grain markets. 4:15 p. m., concert. 6:00 p. m., dinner concert. 7:00 p. m., talk. 8:30 p. m., concert. On Tuesdays, 10:00 p. m., Red Apple Club. Saturday night, silent.

"GOOD EQUIPMENT MAKES A GOOD FARMER BETTER"

Standardize on Good Equipment

THERE is a dealer in your town who has in his store many modern farm machines called by the name "McCormick-Deering." When you make new investments in farm equipment it will pay you to stick to this dealer and with these machines—to standardize on the McCormick-Deering line. Here are some of the benefits that will be clear to you during many coming seasons:

Quality. These machines are the result of 94 years of experience and betterment. They are as near perfect as human skill can make them. They are the standard of the world, famous for dependability and long life.

Service. The value of McCormick-Deering equipment is always greater because of the service that stands ready behind every McCormick-Deering machine. No matter how old your machine, this Company assures a helping hand in case of need. We are furnishing repairs today for McCormick and Deering binders and mowers that have worked through forty seasons.

Unit Operation. In these days of big operations and of power farming, be sure that your farm machines work together as a unit and like one machine. McCormick-Deering tractors and the many drawbar and belt machines are designed and built to work together. Matters of capacity, equipment, adjustment, hitches, etc., are all worked out for handy, fast, unit operation. Each new method and machine you adopt fits in without delays

or extra expense when you use McCormick-Deering machines.

Interchangeable Units and Parts. Standardization in McCormick-Deering manufacture enables you to make emergency repairs and so save valuable time. A great many of the parts in McCormick-Deering machines are being made so that they will be interchangeable between one machine and another. This advantage may sometime mean hundreds of dollars to you in the midst of the heavy summer season.

Standing with the Dealer. The McCormick-Deering dealer is in position to give you the best of co-operation. It will pay you to confine your purchases to the one dealer and make of yourself a favored customer. Scattered purchases cannot make you an important customer with any dealer.

Re-sale Value. McCormick-Deering equipment always stands high in re-sale and trade-in values. Notice how the bidding goes at auctions when a McCormick-Deering machine is put up.

Remember that it is "good equipment" that "makes a good farmer better," and that McCormick-Deering is the old reliable line. Standardize on farm equipment as the wise manufacturer does when he buys materials and factory equipment, and when he builds the product he sells. Standardize as big companies do when they buy fleets of motor trucks. Standardize on equipment as the good farmer does on breeds of livestock. They all standardize and so simplify their operations. It is good business all around.

INTERNATIONAL HARVESTER COMPANY

606 So. Michigan Ave. of America Chicago, Ill.
(Incorporated)
93 Branch Houses in the U. S.; the following in Michigan Farmer territory—Detroit, Grand Rapids, Green Bay, Jackson, Saginaw.

M'CORMICK-DEERING
FARM MACHINES
AND
IMPLEMENTS

HOLDEN Lime and Fertilizer Spreader

Sour soil means poor crops. Experts agree fertilizer is useless on sour soil—it must have lime. The "Holden" Spreader makes bigger crops. Guaranteed to handle lime in any form, fertilizer, phosphate, gypsum, wood ashes or crushed shells.

Soil Tested—free

What about your soil?—your crops? Are they big and sturdy as they should be? Find out today with our free Litmus Test Papers—positive sour soil test recommended by all soil experts. Write for them now.

THE HOLDEN CO., Inc.
Dept 281 Peoria Illinois

SPREADS 16½ FEET

"A Slicker, just like Mine" for rainy days

As popular in the city as in the country.
For Men, Women and Children

FISH BRAND SLICKERS

TOWER'S FISH BRAND

"The Rainy Day Pal"

A. J. TOWER CO., BOSTON

AT YOUR DEALERS

YOUR DEALER HAS THEM

PULVERIZED LIMESTONE

Finely Pulverized High Calcium Limestone, either in bulk or bags. Highest grade sold in Michigan. Campbell Stone Co., Indian River, Mich.

TIMOTHY AND CLOVER \$4.90 PER BU.

BIG BARGAIN—Sample Free—SAVE MONEY
Red Clover and Timothy mixed—Standard Grades, unsurpassed for hay or pasture. Contains 10 to 15% clover ready to sow. Thoroughly cleaned, guaranteed and sold subject to your test and approval. A real bargain. Samples Free of Clover, Alfalfa, Sweet Clover, Timothy, all Field Seeds and special low prices with catalog. American Field Seed Co., Dept. 531, Chicago, Ill.

FOR SALE CORN

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

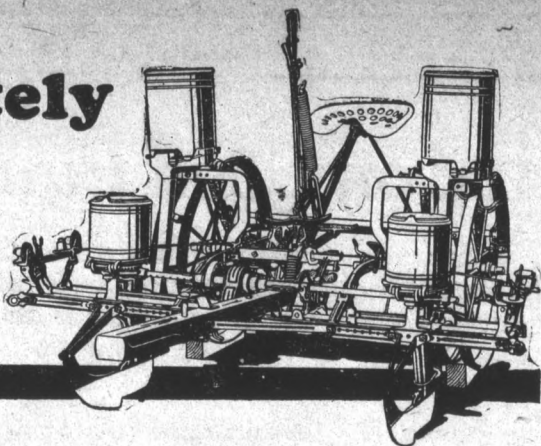
WHERE FARMING PAYS

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

Write to W. E. Price, General Immigration Agent, SOUTHERN RAILWAY, Washington, D. C., Room 680, for full information about How to Make Money on Southern Farms.

Plant Accurately

Fertilize When You Plant



When you buy a John Deere No. 999 Corn Planter with fertilizer attachment, you get the advantage of a corn-dropping device that plants as accurately as you can plant by hand, plus the advantage of being able to distribute fertilizer at the same time the corn is planted.

JOHN DEERE No. 999 Corn Planter With Fertilizer Attachment

Gives the kind of planting that means rapid growth from the very beginning—early maturity and more bushels per acre.

The No. 999 handles up to 700 pounds of fertilizer per acre. Fertilizer can be checked or drilled. Does not come in contact with seed.

The No. 999 drops the desired number of kernels in every hill. Instant change in drop to plant two, three or four kernels per hill. Instant change to drilling and back to hilling. Nine drilling distances obtained without changing plates. Handles a big variety of seeds. Automatic marker. Pea and bean attachment extra. Sold by John Deere dealers.

Do not confuse ACCURATE planting with average planting. Average planting is a hit-and-miss method. Accurate planting means putting the desired number of kernels in every hill with no misses.

Be sure the planter you buy is a John Deere No. 999. Write for literature. Address John Deere, Moline, Ill., and ask for Booklet AH-422.

JOHN DEERE
THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

TREES TRUE TO NAME

The growing and handling of our trees is directly supervised by a member of our firm. Our trees are grown right, dug carefully, and labeled true to name. Agents wanted. Catalogue Free. Established 1863.
THE CLYDE NURSERY, CLYDE, OHIO.

Reliable Fruit Trees

Guaranteed to Grow Seeds, 3-4 ft. Apple Trees 25c. 3-ft. Peach Trees 20c each Postpaid. Growers of Fruit Trees, Berry Plants, Shrubbery and Grape Vines. Send for 1925 Catalog today.
ALLEN'S NURSERIES & SEED HOUSE, Geneva, O.



Growing Conditions Make This Seed So Hardy

PLAY SAFE!
Be sure to get
Genuine Idaho Grimm

Blackfoot Brand State Certified Grimm Alfalfa Seed is grown at an altitude of about 4,600 feet, subjected to extremely low temperatures in winter and to frost 11 months of the year. Only the hardiest plants survive to produce Blackfoot Brand Grimm. This hardy Grimm is adaptable to climatic and soil conditions the country over. Produces sturdy plants that will withstand severe winters. Branching roots are little affected during alternate freezing and thawing. Nature does her part—we do the rest to assure buyers of Blackfoot Brand the highest quality, dependable seed. When selecting Grimm seed be sure to look for the Blackfoot Brand and the red certification tag of the State Seed Commissioner of Idaho.

Ask your dealer for Blackfoot Brand.

IDAHO GRIMM ALFALFA SEED GROWERS ASS'N.
BLACKFOOT IDAHO

GRIMM ALFALFA SEED

Radio Talks on Good Seed

Some Good Discussions Broadcasted by WKAR

MORE information about seed, was the keynote of the activities of Better Seed Week, which has now drawn to a close. Prominent farmers, crops specialists at M. A. C., farm pages of the daily and weekly newspapers, all contributed to the success of the special week which resulted in part from a suggestion for Better Seed Week made by the Michigan Farmer some time ago.

Professor Cox Opens the Series.

The principal feature of the Better Seed Week activity was the radio program broadcast over the M. A. C. radio station, WKAR. Professor J. F. Cox, of the Farm Crops Department of the Michigan Agricultural College, opened these radio discussions, Monday night, by telling of the national seed situation and the work being done by cooperative seed distributing organizations throughout the eastern, northern and corn belt states to insure dependable seed of known origin to their farmers. Professor Cox is, at present, on leave of absence from the Agricultural College, acting as executive secretary of the Federated Seed Service, an organization dealing in seed of known origin.

Ten Years' Experience.

Garfield Farley, Albion, Michigan, farmer, who is president of the Michigan Crop Improvement Association, spoke the same night on the value of the improved varieties under farm conditions. Mr. Farley has for over ten years, been using varieties developed by the Michigan Agricultural College and produced under inspection by the Michigan Crop Improvement Association, and has found them to be of decidedly superior value on his farm.

No Excuse for Inferior Seeds.

H. C. Rather, of M. A. C., secretary of the Michigan Crop Improvement Association, also spoke Monday, telling of the work of that organization in maintaining the purity, quality, and vigor of the varieties which the Michigan Agricultural College develops. He stated that pure seed of the best adapted varieties is now available in sufficient quantity so growers need have no excuse for using inferior seed.

Good Seed Overcomes Adversities.

Tuesday night's radio program was devoted to special seed corn discussions. D. F. Rainey, of the Farm Crops Department of M. A. C., led these with a discussion of the valuable lessons to be secured from the Michigan 1924 Corn Contest, of which he was director. He pointed out that, despite the unfavorable corn growing season of 1924, growers who used seed of improved varieties, carefully dried and tested for germination, had still been able to produce unusually profitable crops, three of them using ear-tested seed having produced better than eighty bushels of shelled corn per acre.

How Seed Corn is Prepared.

Paul Clement, of Britton, Michigan's leading seed corn producer, told of his methods of field selecting, drying, and ear-testing seed corn in quantity. Mr. Clement is one of Michigan's best informed farmers on seed corn germination and his methods of seed corn handling have been giving unusual success with the crop.

Seed Corn Situation Serious.

J. R. Duncan, corn breeder at M. A. C., completed Tuesday night's program with a discussion of the present serious situation insofar as seed corn germination is concerned. He emphasized the use of acid phosphate, high grade seed corn, early field selection, and careful drying and storing of seed in order to avoid similar situations in the future. Much of the seed corn sent in by the growers to be tested by Mr. Duncan, this year, has been below fifty per cent in germination.

Potato Specialists Talk.

Michigan's peculiar diversification of crops was emphasized in the radio program of Wednesday night, this being designated as "Special Crops Night." H. C. Moore and J. W. Weston, potato specialists at M. A. C., told particularly of the influence of good seed in securing more profitable yields of potatoes, as well as a high quality potato which could more readily be sold on a profit on the market.

"Potatoes grown from Michigan certified seed in this as well as other states, have been of much higher quality," said Mr. Weston, "and if Michigan is to hold her market in competition with potatoes from Minnesota, Wisconsin, New York and Pennsylvania, she must have a quality program, for quality sells."

Mr. Moore stated that certified seed of the Russet Rural, White Rural, Green Mountain, Irish Cobbler, and Early Ohio varieties is obtainable in quantity in this state.

Robust Beans Lead.

H. R. Pettigrove, Michigan's bean specialist, told of varietal tests conducted by the Michigan Agricultural College over a period of four years, in which the Robust variety of white navy beans had an increased average yield of seven bushels per acre over the other varieties in the test. He also discussed the growing of red kidney beans, which find considerable higher market than do the rest of the Michigan beans. The dark red kidneys, according to Mr. Pettigrove, find greatest favor on the market, but the light red kidneys, particularly coming from the Wells Improved strain, are less susceptible to disease and in unfavorable seasons are apt to give better yields.

Plant the Beets Early.

Mr. C. E. Cormany, in a discussion on sugar beet culture, emphasized the use of manure and commercial fertilizer, (the latter high in phosphoric acid and potash) careful cultural methods, and early planting. The early planting, in particular, has given exceptionally good results in the experiment trials conducted at the M. A. C.

Advices Permanent Program.

In Thursday night's small grains' program, Ralph Arbogast, prominent southern Michigan farmer, told his radio listeners of the need for a better balanced farm program, in which acid phosphate, alfalfa, and live stock played an important part in building up the fertility of the soil. Mr. Arbogast expressed his belief in a permanent farm program balanced as to production and marketing rather than the guess-and-jump type of production and marketing program which some farmers follow, which so frequently results in their making the wrong guess and jumping into a low market with a large production.

Increasing the Seed Supply.

E. E. Down, plant breeder at M. A. C., told of the crossing, breeding, and careful selection work which has resulted in leading Michigan crops varieties, each adapted to its own particular need; while Mr. P. R. Miller, of M. A. C., supervisor of inspections of the Michigan Crop Improvement Association, told how that organization produced these varieties in quantity and made pure seed of them available.

Alfalfa Experience.

The concluding radio program of Friday night featured clover and alfalfa. The discussion was led by I. R. Waterbury, Managing-Editor of The Michigan Farmer.

Mr. Waterbury told how his first attempts in growing this crop resulted in a failure, but how later after an application of lime and inoculation of both the seed and the soil, to provide nitrifying bacteria; and after the use of northern grown acclimated seed, his efforts were successful. Mr. Waterbury's present method of seeding alfalfa is to put it on land disked up in the spring following a potato crop the previous year, using his alfalfa with about a bushel of oats per acre. Since his earlier experience, this method has never resulted in an alfalfa failure.

Northern Seed Proves Best.

The discussion of Professor C. R. Megee, forage crops specialist at M. A. C., backed Mr. Waterbury's experiences insofar as acclimated seed is concerned, by showing that in the varietal trials conducted by the Agricultural College, the northern grown common and Grimm alfalfa seed, had produced profitable alfalfa stands, but the southern grown seed has been a failure. Other trials by Professor Megee showed much of the imported clover seed, particularly that from Italy, to be unadapted to Michigan conditions, while Michigan grown seed had produced highly satisfactorily for both a hay and seed crop.

Alfalfa in Cloverland.

L. D. Kurtz, of the M. A. C. Extension Staff, who has been taking care of the crops work in the Upper Peninsula, told of the rapid progress being made by northern Michigan growers in alfalfa production—Menominee county, alone, having seeded more than 1,000 acres to pure Grimm alfalfa. In trials conducted by Mr. Kurtz, in the Upper Peninsula, the Grimm alfalfa gave an average yield of four tons per acre for two cuttings.

It is believed that the radio program of Better Seed Week reached one of the largest radio audiences which ever listened to farm programs. Nearly 1,000 registrations of radio owners were made with the college, while many of these invited in others and held group radio meetings, so that probably more than 10,000 people listened to the discussions of the week.

Looking Ahead In Farming

What the Outlook is for Some Michigan Products

By J. T. Horner

THE farmer's profits at the end of the crop year depend upon three things: (1) The quantity of produce he has to sell; (2) the market price; (3) the costs of operation.

The quantity of produce which there is for sale will depend upon weather conditions and the acreage. For a large income the individual farmer will want a large quantity of produce. But a large production will tend to lower the price. Large crops and high prices seldom come the same year.

For the individual farmer the quantity for market will depend upon his acreage, the season, and the methods of production. While it is not easy to change the usual program greatly, it is possible for each farmer to modify his program to a certain extent. If the outlook for the bean market is good and the potato market poor, acreage adjustments can be made.

In looking forward to the coming

in response to present market conditions will have a depressive effect on the 1925 price.

The individual farmer can have some influence on his wheat profits if he follows the proper methods. Concerning the wheat situation for 1925, the United States Department of Agriculture says:

"Much can be done by growers to increase the price of wheat regardless of the market situation. Careful attention to the quality and condition of the wheat when it leaves the farm adds considerably to the price; and the elimination of undesirable varieties in favor of those which yield well and command a premium on the market assures higher returns per acre with no increase in the cost of production. The quality and price of the wheat can be increased by preventing heat damage in storage through the use of expensive ventilators, and by



Just Now the Farmer with a Good Herd of Swine is Peculiarly Fortunate.

year and in planning the year's plantings the farmer wants to know what the price outlook is.

General business conditions will have some effect on the prices for 1925 agricultural products. While there has been a stimulation of business during the past few months forecasters do not venture an opinion that the present rate of business activity will continue throughout the year. It must not be assumed, however, that we are now enjoying unbounded prosperity. January, 1925, was 0.9 per cent above that of December, 1924, and was three per cent less than that for January, 1924. The decrease in payroll for the same periods was 5.3 per cent.

Employment in the automobile industry in January, 1925, was sixteen and one-half per cent below that of January, 1924, with a decrease of twenty-four per cent in payroll.

In the east north central geographic division (Michigan is located in this division) the decrease from January, 1924, to January, 1925, was greater than for the country as a whole, being 7.2 per cent in number employed and nine per cent in payroll.

Present business conditions and the outlook for the coming year do not indicate that the domestic demand for the 1925 crops will be any better, if as good, as for those of the past year. Farmers, therefore, should not build too great hopes upon a reviving business putting more money into their pockets this year.

Conditions in Europe are generally somewhat better than a year ago and the demand for farm products ought to be strengthened. On the other hand, these countries will produce as much of their requirements as possible. There will also be rather keen competition from Australia, Canada, and Argentina in the wheat market. Competition in meat and dairy products will continue strong.

On the demand side, both foreign and domestic, there seems to be little hope for strengthening prices. The individual farmer, then, must plan his production to best suit the conditions as they exist.

Wheat.

It is too late for the Michigan farmer to adjust the wheat acreage. The present high prices of wheat will surely not prevail during 1925 if there is an average crop this year. An undue expansion of the spring wheat acreage

removing dockage on the farm with simple cleaning apparatus. The screenings may be turned to valuable account as a feed for live stock."

Hogs.

Hog production should not be planned upon the present market price when this year's crop gets to the market place.

On January 1, 1925, there were approximately 54,000,000 hogs in this country, as compared with about 82,000,000 the year before. There will be fewer number of pigs born this spring—the U. S. Department of Agriculture estimates from six to eight million less). On January 1, 1925, there were 252,000 (about twenty per cent) fewer hogs in Michigan than on January 1, 1924. Indications are that hog prices will rise during the coming year, and a further reduction in hog production is not advisable from the standpoint of profitable and well-balanced farming. Also, it is undesirable from the standpoint of the needs of the domestic market.

It seems highly desirable for the farmer to make plans to increase his fall crops of pigs. It is not likely that the shortage of hogs will be overcome and lower prices result by the time this fall crop is ready for market. Hogs seem to offer an opportunity for profit. However, expansion must be undertaken with reason.

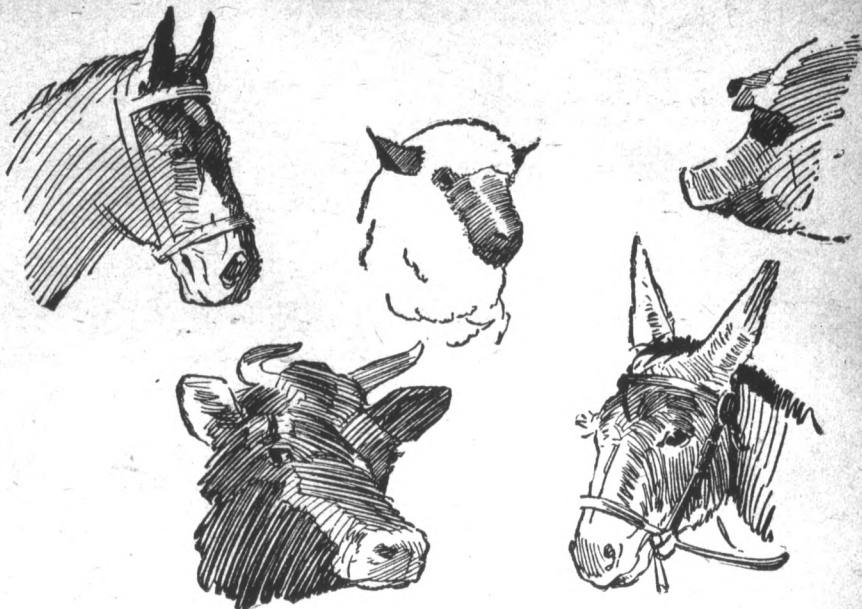
Beef Cattle.

Production of beef cattle can not be so readily changed to meet changing market conditions as can that of hogs. There were fewer beef cattle in the United States on January 1, 1925, than any time during the last ten years. The low prices of the past five years have made beef production unprofitable.

The indications are that there will be higher prices for beef cattle during the coming year. The man with the better grades of beef will, no doubt, enjoy the greatest price increases.

Note.—Next week the outlook in dairying, the sheep and wool business, feed supplies and sugar beets will be discussed.

The heralds of progress are quite as likely to be found in the advertising as in the reading columns of the American press.



How much salt should livestock eat?

Every farmer knows that without enough salt his stock will lose weight; that their whole physical condition will be endangered.

Especially clean and pure. Animals will eat all they require. It is the ideal salt for conditioning livestock. And it costs no more than ordinary salt.

But what is the correct amount of salt to feed them? That is a vital question. Horses eat more than cows, sheep eat more than swine; no two horses have the same salt requirements—no two cows, no two sheep, no two pigs. Moreover, the salt needs of stock vary with the changes in the weather as well as with the variations in their feed. Thousands of stockmen have solved this problem by allowing their animals free access to salt at all times, making sure that the salt was not full of the bitter impurities which make some salt so disagreeable. They have found that stock, given a free amount of pleasant-tasting salt, will eat the right quantity for their particular needs.

The ideal stock salt

There is one salt that successful farmers use regularly for their stock—one exceptionally free from the impurities that make some salt strong and bitter. This is Diamond Crystal Common Salt. Made from a brine pumped from salt beds 2,000 feet deep, Diamond Crystal is espe-

The Diamond Crystal Salt Guide

For Table, Kitchen and Household Use	Diamond Crystal Shaker Salt (free flowing, in handy pouring cartons) or Diamond Crystal Table Salt (in boxes or sanitary muslin bags).
For Curing Meats	Diamond Crystal Coarse Salt (in 35-lb. and 70-lb. bags).
For Butter-Making	Diamond Crystal Flake or Fine Flake Salt (in 280-lb. paper-lined barrels and in bags).
For Cheese-Making	Diamond Crystal Cheese Salt (in 280-lb. paper-lined barrels).
For Canning Vegetables and Fruits	Diamond Crystal Flake Salt, Diamond Crystal Fine Flake (Table Salt) or Diamond Crystal Fine Salt (in 280-lb. barrels or bags).
For Livestock, Salting Hay, Killing Weeds, etc.	Diamond Crystal No. 1 Common Salt (in 280-lb. barrels, in bags and in 50-lb. blocks).

A salt guide for your use

There is a Diamond Crystal Salt for every use. The guide at left shows you which one to use for each farm need.

Diamond Crystal Salt for table and cooking use, for butter-making, meat-curing, etc., is further refined by a special, patented process which no other manufacturer can use. It is the only salt that government tests

show to be always over 99% pure. The same process makes it in the form of delicate flakes instead of hard, gritty cubes. Thus, Diamond Crystal dissolves quickly, develops finer flavors in food, and cures meat evenly and thoroughly.

Use the salt guide the next time you buy salt. If you don't know where to get Diamond Crystal in your community just write us.

Diamond Crystal Salt Company, since 1887 makers of Diamond Crystal, "The Salt that's all Salt", St. Clair, Mich.

FREE—Many women have been interested in our booklet "101 Uses for Salt". We will be glad to send it free upon request.

Diamond Crystal Salt



There is a Diamond Crystal Salt for each farm need. No. 1 Common, for stock feeding, comes in 280-lb. barrels, in bags and in 50-lb. blocks

Soil Clinics in S. W. Michigan

IN an effort to extend the service of the Michigan Agricultural College to the very doors of the citizens of this state, the soils department has just completed plans for the operation of a soil fertility train on the New York Central Lines in southwestern Michigan. The main feature will be a laboratory car which will be completely equipped to test all samples of soil and marl which the farmers may bring in. Tests for calcium, potash, organic matter, etc., will be made and a written report handed to each farmer along with recommendations for handling the field from which the soil was taken. Farmers are urged to bring in their soils and samples and consult with the soils specialists in this laboratory car.

"If any one doubts the need of a soil-clinic in that section of Michigan, he need only compare the yields obtained from those farms last year with those of twenty-five years ago. On every hand the questions are raised, 'Why can't we raise wheat like we used to? What is the matter with our clover stands?' Our greatest natural resource—soil fertility—has been dissipated and wasted away, and this section of Michigan is seriously in need of a 'Soil Doctor.'" So says Dr. M. M. McCool, Professor of Soils, who is actively sponsoring this project.

In keeping with its general policy of encouraging anything that tends toward better agriculture, the New York Central Lines are cooperating in this project by providing the coaches and the transportation for the same. Its agricultural department is also assisting in carrying out the details of the project.

Besides the laboratory car, there will be motion pictures, charts, exhibits, and lectures to make anyone's visit to the train both instructive and worth-while. Samples of fertilizing material and limestone will be on display.

This train is scheduled to leave Grass Lake on April 7 and will continue to travel until April 21, when it reaches Eaton Rapids. At least two hours will be allowed for each place, thus giving abundant time for every farmer to have his samples tested and to consult with the soils specialists from the college.

Following is the itinerary:

Schedule of Soil Fertility Train.

Tuesday, April 7, morning, Grass Lake; afternoon, Jackson.

Wednesday, April 8, morning, Concord; afternoon, Tekonsha; evening, Union City.

Thursday, April 9, morning, Colon; evening, Centerville.

Friday, April 10, morning, Cassopolis; evening, Jones.

Saturday, April 11, afternoon, Niles. Monday, April 13, morning, Buchanan; afternoon, Three Oaks.

Tuesday, April 14, morning, Dowagiac; afternoon, Decatur.

Wednesday, April 15, morning, Galesburg; afternoon, Battle Creek.

Thursday, April 16, morning, Marshall; afternoon, Kalamazoo.

Friday, April 17, morning, Schoolcraft; afternoon, Constantine.

Saturday, April 18, morning, Bronson.

Monday, April 20, morning, Quincy; afternoon, Coldwater.

Tuesday, April 21, morning, Albion; afternoon, Eaton Rapids.

THE FARMER'S DISADVANTAGE.

THE address of Mr. Frank O. Lowden, of Illinois, president of the Holstein-Friesian Association, at Escanaba, last January, was a notable utterance. He pointed out that, although the American farmer produces large fractions of several of the world's most important farm crops, such as corn, cotton, wheat, wool, and other products, yet in marketing these great staples, the farmer is at a great disadvantage.

Theoretically he should take his chances with all other business men with the market as he finds it under the law of supply and demand; but when prices are fixed at a just level under this law, there is assumed equality of bargaining power on the side of both buyer and seller—equality of knowledge of market conditions—ability to refuse to sell when conditions are adverse—equality of organizing power. Of course, the farmer has no such equality with the buyer of his products. The buyers are organized, they employ highly trained agents, they are well informed on market conditions the world over. What chance, asks Mr. Lowden, has the individual farmer off by himself on his own farm, with the buyers of his products under such conditions? The law of supply and demand cannot work effectively and fairly under such conditions. Yet, he said, there are business men who object to farmers' organizations and to farmers cooperating.

He pled with the business men not to thwart but to encourage agricultural organization and cooperation as a result of which we shall maintain our rural life and population in a prosperous and happy condition, not simply for the good of the farmer but also for the nation as a whole.

Salesman who can sell are the gods of the hour, both in the field of industry and of agriculture.

Sanitary Outbuildings

Painting Helps Prevent Livestock and Poultry Diseases

THE lack of paint on the exterior and interior of buildings which house live stock or poultry may not directly mean an increase in tuberculosis, cholera and numerous other animal and poultry diseases which cost farmers such huge sums annually, but there is no gainsaying the fact that in the prevention and treatment of sickness, cleanliness is a vital factor. Sanitary, washable, light colored walls on the interior, and a moisture-proof paint film on the exterior of structures for housing animals, do much to prevent disease.

Barns, cattle barns, hog houses and poultry houses which are unpainted absorb moisture. This works through the wood, rotting it and making interiors cold and damp. Animals housed in such buildings, especially young animals or poultry, will have less physical resistance to disease and colds. Paint will not prevent tuberculosis, cholera or other diseases, but it will help in fighting them, as well as pneumonia. Disease germs and

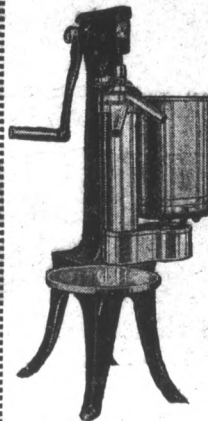
vermin thrive in dark, damp and poorly ventilated places. Let germs and vermin once gain a foothold in such surroundings and their eradication will cost much time and money.

Paint prevents the decay of buildings, and in this way makes them less apt to harbor germs and germ carriers. Paint prevents some diseases by killing germs. Freshly painted surfaces are easier to clean and there is more incentive to keep them so—this tends to lessen disease. The result is healthier live stock. In painting the interior of structures for housing animals a paint containing non-poisonous pigments (there are many such) should be used.

Well-painted buildings are generally better kept and the live stock, being better cared for, is less subject to disease. The very fact that a building is well painted gives more pride in the condition of the interior and the care of stock. An animal will pay greater returns in every way if housed in well-lighted, clean surroundings.

The Sharples 1925 "Quiescent Current" Separator

The Allsteel Separator [600 lbs. per hour]



Sharples Allsteel Cream Separator

Turns easier than any other known separator

Joseph Beckinbaugh, Richmond Furnace, Pa., says his two-year-old boy turns it. That is younger than we recommend, but it indicates the ease of turning. One finger turns it "like a feather." Wife, please take notice!

Gets more cream and more butter than any other known separator

It skims equally clean at widely varying speeds. Other separators may skim clean at a fixed speed, but no other separator does at all speeds. It is humanly impossible to always turn at one speed.

Made of wrought steel—not clumsy cast iron—and wonderful Duralumin, open blade—rust-proof sanitary skimming device

These Allsteel Separators are light and neat looking, but durable and efficient beyond comparison.

A short lecture, but well worth reading

There is a vast difference in cream separators of different makes, and don't think there is not.

The advertising claims of all read alike because language is as free to one person as another.

Neither the words nor the amount of advertising make it better. We are ourselves large advertisers, but that is not what makes our separators better.

A trial side by side with others will tell the tale

Never order any separator on trial unless you order also an Allsteel on trial beside it, so that you may know what should be expected of a separator.

This little Allsteel Separator will look light and small when you get it—so does your watch look small beside a Big Ben, but the watch will last longer and keep better time. But the little Allsteel is a wonder for work and will last a lifetime. We build exactly the same skimming bowl into a heavy cast iron frame and gears. Below is the picture of it: It is an excellent separator. It would please you better than any other kind of separator except the Allsteel.

This heavier, larger separator will skim faster and better and will satisfy you better and will turn easier than any competing separator of like capacity, but not as easily as the Allsteel. Either will last for years.

Take our word for it. We have been selling you separators for over forty years. Our reputation is back of what we say. What we sell you has to please you, has to satisfy you in every way or you return it and get all your money back—if you have paid before trial.

A \$100 Allsteel Separator for \$82

The famous Sharples Allsteel Cream Separator—600 lbs. capacity per hour—is a \$100 Separator and the best Separator for \$100 that anyone ever bought. We have never had a price below \$100 on this separator, and thousands are at work giving supreme satisfaction to their purchasers.

We give thirty days' absolutely free trial, together with an allowance of \$15 for your old separator and twelve months in which to pay by easy installments.

But now we are overstocked with old second-hand separators of every make and cannot dispose of the surplus except for old iron.

For that reason we will, for a time, accept your order for a \$100 Allsteel Separator at \$88—you keeping your old machine if you have one.

Or if you pay cash at end of 30 days' free trial, send but \$82.

Mark X in square on coupon showing plan of purchase you desire, then sign and mail to us.

Heavy-build Separators Made in Two Sizes

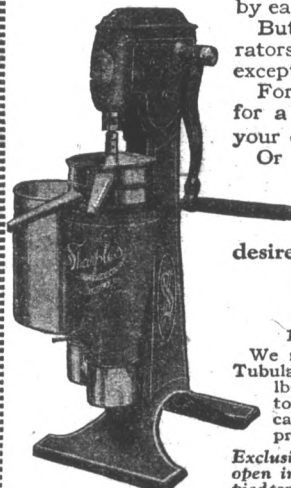
700 lbs. per hour—\$100
1650 lbs. per hour—\$165

We make a complete line of Tubular separators from 200 lbs. per hour capacity to 10,000 lbs. per hour capacity. Send for printed matter.

Exclusive agencies open in unoccupied territories to good working dealers.

☐ Cash \$82 at end of thirty days' free trial, if all proves satisfactory to purchaser.
☐ Cash \$80.36 with this order, thirty days' satisfactory free trial, or money returned.
☐ Settlement \$88 running over twelve months, installment plan.
☐ Settlement \$100 running over twelve months and \$15 allowance for old separator.

Name.....P. O.....



Sharples 1925 Heavy-build Separator

CUT HERE, SIGN AND MAIL TO US

The Sharples Separator Co.
West Chester, Pa.
or
San Francisco, Calif.
Chicago, Ill.; Toronto, Ont.

Deliver to me at your expense a \$100—600 pounds per hour, Sharples Allsteel Cream Separator for thirty days' free trial at my home, to be settled for as checked below if entirely satisfactory.

WORLD EVENTS IN PICTURES



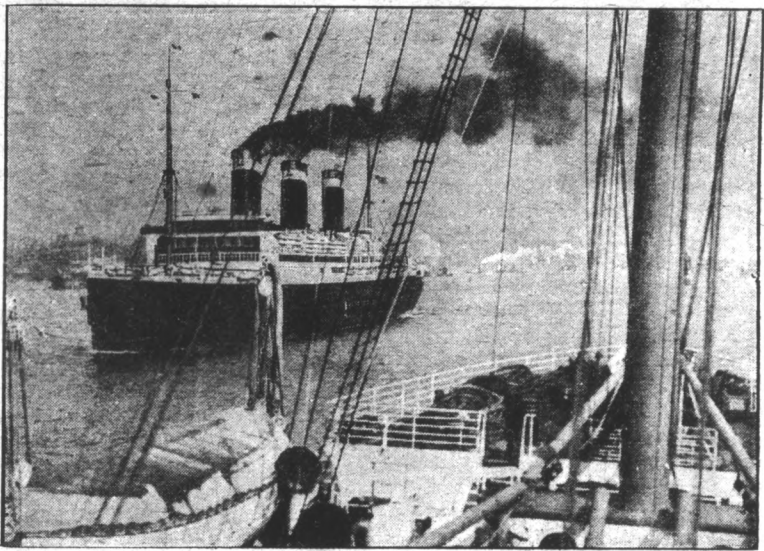
Mrs. Nicholas Longworth and little Paulina, who arrived as a Valentine to the Longworths.



President and Mrs. Coolidge, with Senator Charles Curtis, of Kansas, at right, as they were leaving the White House on the morning of March 4, for the inauguration ceremony at the Capitol.



Senator Moses, of New Hampshire, was elected President pro tem of the sixty-ninth congress.



Shining from keel to pennant, the S. S. Leviathan, largest of ocean greyhounds, is steaming out of New York harbor, bound for Europe on the first voyage of 1925.



Queen Marie of Roumania, with her two pets each with a pedigree almost as long and royal as her own, a magnificent Orloff trotting stallion, and a spaniel.



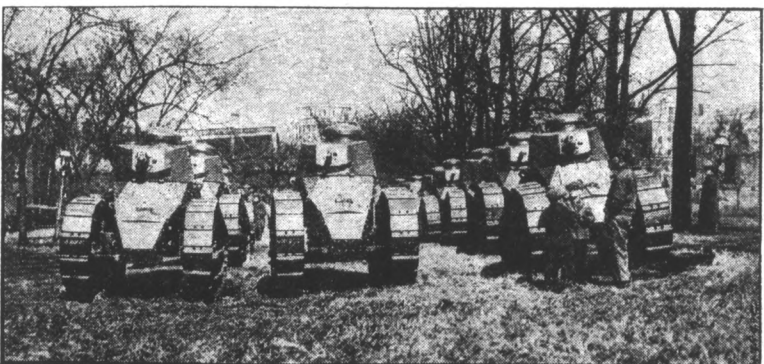
Kermit and Theodore Roosevelt second, are off to hunt big game in Eastern Turkestan, for the Field Museum, of Chicago.



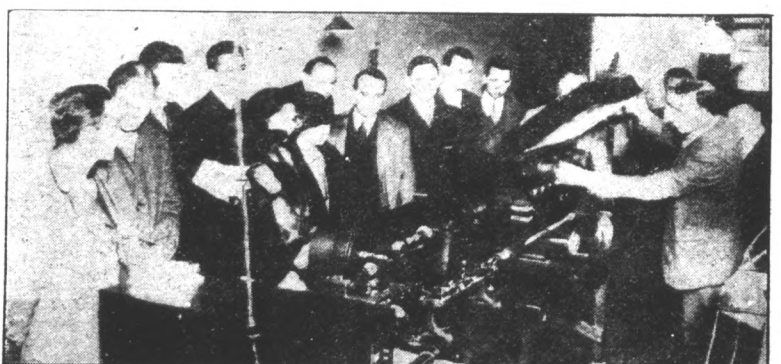
Col. James Fechet, U. S. A., will succeed Gen. William Mitchell, of Army Air Service.



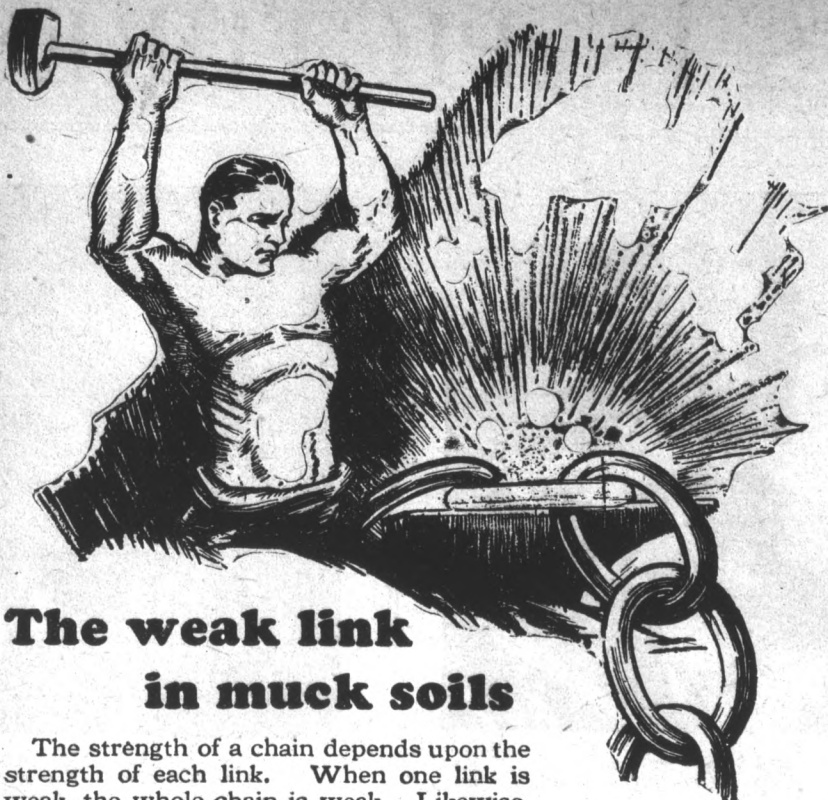
Leona Mason, queen of annual American Derby at Ashton, Idaho, and Tud Kent, the winner of the 1924 Derby.



These fifteen huge battle tanks manned by a total of fifty men from Camp Meade, took part in the inaugural parade in Washington, D. C., on March 4.



This view shows the machine that transmits pictures by wire from one city to another. This picture was transmitted from Washington to New York by the same method.



The weak link in muck soils

The strength of a chain depends upon the strength of each link. When one link is weak, the whole chain is weak. Likewise, the fertility of your soil depends upon each of the essential plant foods—

Potash—and sometimes phosphoric acid—is the weak link in muck soil. To produce good crops on muck soil, apply plenty of potash.

In Kent County, Michigan, Mr. N. Koster grew celery on four adjoining plots. The soil was muck with marl subsoil. His yields showed that 1000 lbs. per acre of a 2-7-10 mixture resulted in \$122.40 more income than when the same fertilizer minus potash was used. In other words—

MR. KOSTER'S EXPERIMENT WITH CELERY ON MUCK SOIL SHOWED THAT POTASH COSTING \$6.00 PRODUCED \$116.40 EXTRA NET INCOME PER ACRE.

The Michigan Experiment Station is recommending the use of 1000 to 1500 pounds per acre of mixtures analyzing 2-8-16, 0-12-12, and 0-8-24 for muck soils in Michigan.

POTASH IMPORTING CORPORATION
OF AMERICA

81 FULTON ST., Dept H 4 NEW YORK
Baltimore San Francisco

Genuine German
POTASH

Sales Agents: H. J. Baker & Bro., 81 Fulton St., N. Y.

Mention Michigan Farmer When Writing to Advertisers

Eureka Potato Machines

Make Money for Potato Growers

Eureka Potato Machines take hard work out of potato growing. They reduce time and labor costs. They assure bigger yields.

Potato Cutter
Cuts uniform seed. Operates with both hands free for feeding.

Potato Planter
One man machines doing five operations in one. Over twenty-three years' success.

Traction Sprayer
Insures the crop. Sizes, 4 or 6 rows. 60 to 100 gallon tanks. Many styles of booms.

Riding Mulcher

Breaks crusts, mulches soil, and kills weeds when potato crop is young and tender. 8, 10 and 12 ft. sizes. Many other uses, with or without seeding attachment.

All machines in stock near you

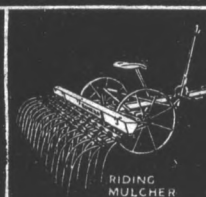
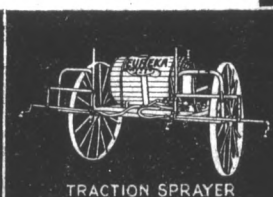
Potato Digger

Famous for getting all the potatoes, separating and standing hard use. With or without engine attachment or tractor attachment.

Send for complete catalogue

EUREKA MOWER CO.

Box 1115 Utica, N. Y.



SPANKNOEBEL seemed never to sleep, yet his color was ruddy, eyes clear. The last truckster coming in for a beer or a cup of coffee and a sandwich, was greeted by Chris, white-aproned, pink-cheeked, wide awake, swabbing the bar's shining surface with the thirsty cloth, swishing it with the sly rubber-tipped board. "Well, how goes it all the while?" said Chris. The earliest morning trader found Chris in a fresh white apron crackling with starch and ironing. He would swab the bar with a gesture of welcome, of greeting. "Well, how goes it all the while?"

As Selina entered the long room now there was something heartening, reassuring about Chris's clean white apron, his ruddy color, the very sweep of his shirt-sleeved arm as it encompassed the bar-slab. From the kitchen at the rear came the sounds of sizzling and frying, and the gracious scent of coffee and of frying pork and potatoes. Already the market men were seated at the tables eating huge and hurried breakfasts: hunks of ham; eggs in pairs; potatoes cut in great cubes; cups of steaming coffee and chunks of bread that they plastered liberally with butter.

Selina approached Chris. His round face loomed out through the smoke like the sun in a fog. "Well, how goes it all the while?" Then he recognized her. "Um Gottes!—why, it's Mis' DeJong!" He wiped his great hand on a convenient towel, extended it in sympathy to the widow. "I heerd," he said. "I heerd." His inarticulateness made his words doubly effective.

"I've come in with the load, Mr. Spanknoebel. The boy and I. He's still asleep in the wagon. May I bring him over here to clear him up a little before breakfast?"

"Sure!" Sure! A sudden suspicion struck him. "You ain't slept in the wagon, Mis' DeJong! Um Gottes!" "Yes. It wasn't bad. The boy slept the night through. I slept, too, quite a little."

"Why you didn't come here! Why—" At the look in Selina's face he knew then. "For nothing you and the boy could sleep here."

"I knew that! That's why."

"Don't talk dumb, Mrs. DeJong. Half the time the rooms is vacant. You and the boy chust as well—twenty cents, then, and pay me when you got it. But any way you don't come in reg'lar with the load, do you? That ain't for womans."

"There's no one to do it for me, except Jan. And he's worse than no-body. Just through September and October. After that, maybe—" Her voice trailed off. It is hard to be hopeful at three in the morning, before breakfast.

She went to the little wash room at the rear, felt better immediately she had washed vigorously, combed her hair. She returned to the wagon to find a panic-stricken Dirk sure of nothing but that he had been deserted by his mother. Fifteen minutes later the two were seated at a table on which was spread what Chris Spanknoebel considered an adequate breakfast. A heartening enough beginning for the day, and a deceptive.

The Haymarket buyers did not want to purchase its vegetables from Selina DeJong. It wasn't used to buying of women, but to selling to them. Peddlers and small grocers swarmed in at four—Greeks, Italians, Jews. They bought shrewdly, craftily, often dishonestly. They sold their wares to the housewives. Their tricks were many. They would change a box of tomatoes while your back was turned; flch a head of cauliflower. There was little system or organization.

SO BIG—By Edna Ferber

COPYRIGHT, 1924, DOUBLEDAY PAGE & COMPANY

Take Luigi. Luigi peddled on the north side. He called out his wares through the alleys and side streets of Chicago, adding his raucous voice to the din of an inchoate city. A swarthy face had Luigi, a swift brilliant smile, a crafty eye. The Haymarket called him Loogy. When prices did not please Luigi he pretended not to understand. Then the Haymarket would yell, undeceived, "Heh, Loogy, what de mattah! Spika da Engleesh!" They knew him.

Selina had taken the covers off her vegetables. They were revealed crisp, fresh, colorful. But Selina knew they must be sold now, quickly. When the leaves began to wilt, when the edges of the cauliflower heads curled ever so slightly, turned brown and limp, their value decreased by half, even though the heads themselves remained white and firm.

Down the street came the buyers—little black-eyed swarthy men; plump, shirt-sleeved, greasy men; shrewd, tobacco-chewing men in overalls. Stolid red Dutch faces, sunburned. Lean dark foreign faces. Shouting, clatter, turmoil.

"Heh! Get your horse outta here! What the hell!"

"How much for the wh barrel?"

"Got any beans? No, don't want cauliflower. Beans!"

"Tough!"

"Well, keep 'em. I don't want 'em."

"Quarter for the sack."

"G'wan, them ain't five-pound heads. Bet they don't come four pounds to the head."

"Who says they don't?"

"Gimme five bushels them."

Food for Chicago's millions. In and out of the wagons. Under horse's hoofs. Bare-footed children, baskets on their arms, snatching bits of fallen vegetables from the cobbles. Gutter Annie, a shawl pinned across her penderous breasts, scavenging a potato there, an onion fallen to the streets, scraps of fruit and green stuff in the ditch. Big Kate buying carrots, parsley, turnips, beets, all slightly wilted and cheap, which she would tie into bunches with her bit of string and sell to the real grocers for soup greens.

The day broke warm. The sun rose red. It would be a humid September day such as frequently came in the autumn to this lake region. Garden stuff would have to move quickly this morning. Afternoon would find it worthless.

Selina stationed herself by her wagon. She saw the familiar faces of a half dozen or more High Prairie neighbors. These called to her, or came over briefly to her wagon, eyeing her wares with a calculating glance. "How you making out, Mis' DeJong? Well, you got a good load there. Move it along quick this morning. It's going to be hot I betcha." Their tone was kindly, but disapproving, too. Their look said, "No place for a woman. No place for a woman."

The peddlers looked at her bunched bouquets, glanced at her, passed her by. It was not unkindness that prompted them, but a certain shyness, a fear of the unaccustomed. They saw her pale fine face with its great sombre eyes; the slight figure in the decent black dress; the slim brown hands clasped so anxiously together. Her wares were tempting but they passed her by with the instinct that the ignorant have against that which is unusual.

By nine o'clock trading began to fall off. In a panic Selina realized that the sales she had made amounted to little more than two dollars. If she stayed there until noon she might double that, but no more. In desperation she har-

(Continued on page 437).



More people are talking about this Fine Car than any other Car in America

Of course people are talking about this new fine Overland with six cylinders. *Of course* they are drawn into liking and admiring and wanting this remarkable car. For motor car buyers these days are real students of quality, close judges of value—buying shrewdly and keenly after making shrewd and keen comparisons. Q The public was bound to admire the fascinating beauty of the new Overland Six. And bound to ap-

preciate its fine comfort and luxury. Q The power of this car is a joy. You can overtake and pass nine out of ten cars on hills, and likewise on the open road. In traffic the swift getaway of the new Overland Six makes cars around you seem listless and poky. Q Great smoothness is engineered into the engine. The wonderfully balanced crankshaft is ingeniously drilled to receive perfect lubrication at all speeds. And by in-

genious developments in six cylinder design friction and wear have been minimized to the vanishing point. That means great endurance. Q You need but one look at the new Overland Six to know why it is receiving such an enthusiastic welcome. It has beauty and style, comfort and luxury, to a degree never before offered at such a low price . . . Willys-Overland, Inc., Toledo, O. Willys-Overland Sales Co. Ltd., Toronto, Can.

The Fine **New OVERLAND** *With Six Cylinders*

W I L L Y S O V E R L A N D F I N E M O T O R C A R S

They Have Stopped Mistakes in Painting

—with the help of the Farm Painting Guide



YOU can do the same.

Save the Farm Painting Guide, put it up on your wall in a permanent place, and then, every time you go to buy paint, varnish, stain or enamel, look at the "Guide" first.

The Guide simply makes it easy to select the **RIGHT** type of paint, of varnish, of stain and of enamel exactly as a color card makes it easy to select the right color; *it stops mistakes in painting.*

**Be sure to look up
"Paint Headquarters"**

The store in your community displaying the "Guide" and carrying the correct Sherwin-Williams finishes is "Paint Headquarters." Look for the "Guide" in the window and inside the store.

The Sherwin-Williams Dep't of Home Decoration will gladly give you individual suggestions for your home if you write them. Ask for free booklet B450 and for free set of handsome color plates. If you want the most complete book on home decorating ever issued, 177 pages, many beautiful full-page decorative schemes in colors, send 50c (65c in Canada). Write The Sherwin-Williams Co., Dep't B435, 610 Canal Road, Cleveland, Ohio.

SHERWIN-WILLIAMS FARM PAINTING GUIDE



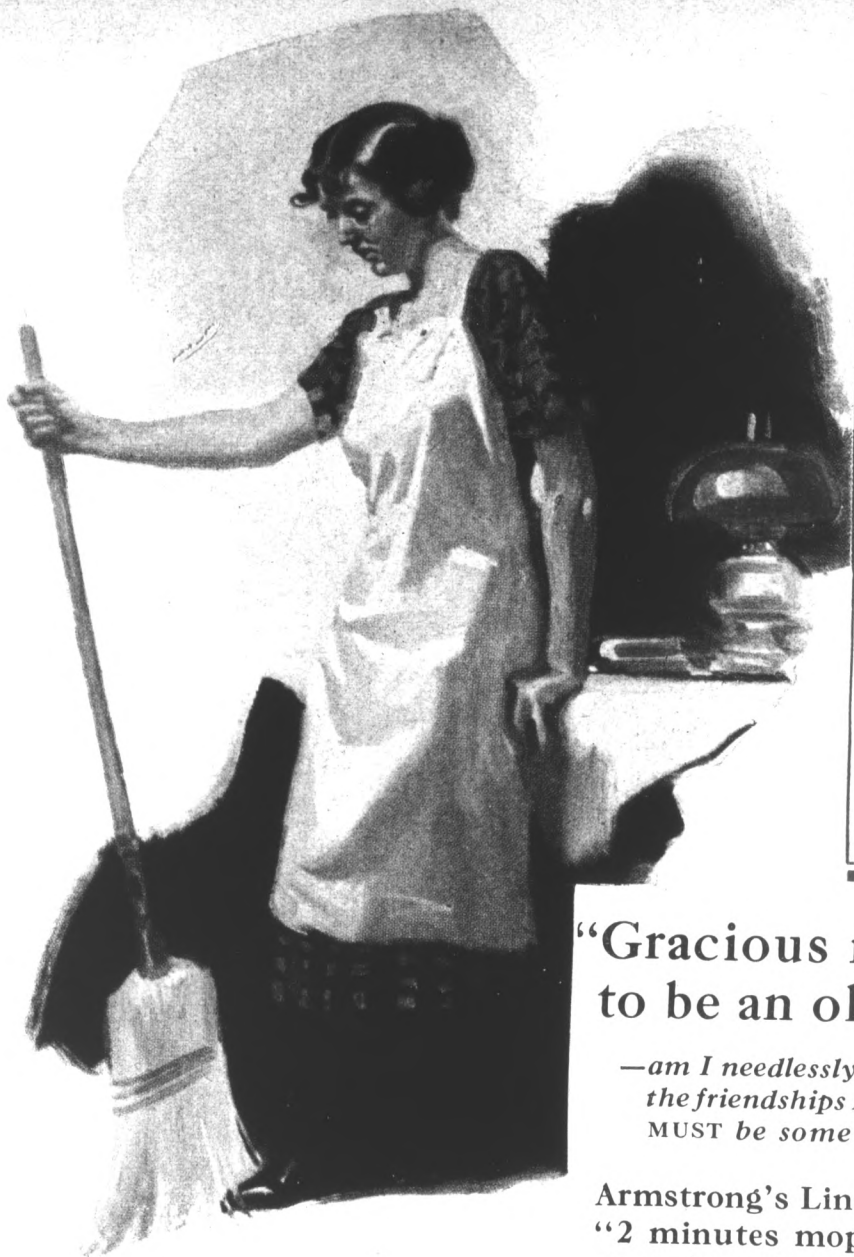
SURFACE	TO PAINT— USE PRODUCT NAMED BELOW	TO VARNISH— USE PRODUCT NAMED BELOW	TO STAIN— USE PRODUCT NAMED BELOW	TO ENAMEL— USE PRODUCT NAMED BELOW
AUTOMOBILES.....	S-W Auto Enamel	S-W Auto Enamel Clear		S-W Auto Enamel
AUTOMOBILE TOPS AND SEATS.....	S-W Auto Top and S-W Auto Seat Dressing			
BARNs, SILOS, OUT- BUILDINGS, Etc.....	S-W Commonwealth Paint: S-W Roof and Bridge Paint:		S-W Preservative Shingle Stain	
BRICK.....	SWP House Paint S-W Concrete Wall Finish			Old Dutch Enamel
CEILINGs, Interior...	Flat-Tone	Scar-Not Varnish	S-W Handcraft Stain Floorlac	Enameloid
Exterior.....	SWP House Paint	Rexpar Varnish	S-W Oil Stain	Old Dutch Enamel
CONCRETE.....	S-W Concrete Wall Finish			
DOORs, Interior.....	SWP House Paint	Scar-Not Varnish Velvet Finish No. 1044	Floorlac S-W Handcraft Stain	Enameloid
Exterior.....	SWP House Paint	Rexpar Varnish	S-W Oil Stain	Old Dutch Enamel
FENCEs.....	SWP House Paint Metalastic S-W Roof and Bridge Paint		S-W Preservative Shingle Stain	
FLOORs, Interior (wood).....	S-W Inside Floor Paint	Mar-Not Varnish	Floorlac	S-W Inside Floor Paint
Concrete.....	S-W Concrete Floor Finish			S-W Concrete Floor Finish
Porch.....	S-W Porch and Deck Paint			
FURNITURE, Indoors	Enameloid	Scar-Not Varnish	Floorlac	Old Dutch Enamel
Porch.....	Enameloid	Rexpar Varnish	S-W Oil Stain	Enameloid
HOUSE OR GARAGE Exterior.....	SWP House Paint	Rexpar Varnish	S-W Preservative Shingle Stain	Old Dutch Enamel
IMPLEMENTS, TOOLS, TRACTORS, WAGONS, TRUCKS LINOLEUM.....	S-W Wagon and Implement Paint	Rexpar Varnish		
	S-W Inside Floor Paint	Mar-Not Varnish		S-W Inside Floor Paint
RADIATORs.....	Flat-Tone S-W Aluminum or Gold Paint			Enameloid
ROOFs, Shingle.....	S-W Roof and Bridge Paint		S-W Preservative Shingle Stain	
Metal.....	Metalastic			
Composition.....	Ebonol			
SCREENs.....	S-W Screen Enamel			S-W Screen Enamel
WALLs, Interior (Plaster or Wallboard)	Flat-Tone SWP House Paint			Old Dutch Enamel Enameloid
WOODWORK Interior.....	SWP House Paint Flat-Tone	Scar-Not Varnish Velvet Finish No. 1044	S-W Handcraft Stain S-W Oil Stain Floorlac	Old Dutch Enamel Enameloid
For Removing Paint and Varnish use Taxite—quick—easy —thorough—economical— can be used by anyone—on any surface.		SHERWIN-WILLIAMS PAINTS AND VARNISHES		For Cleaning Painted and Varnished Sur- faces use Flaxoap. Made from linseed oil—contains no free alkali—restores origi- nal lustre.



Specify Opex for repainting your auto. Opex is the modern nitrocellulose lacquer with the satiny finish that will not scratch, mar or chip off. Actually improves with age. Dries quickly—car out of the shop in a few days. Wide range of colors. Be sure to ask your auto paint shop for Sherwin-Williams Opex.

SHERWIN-WILLIAMS

PAINTS AND VARNISHES



For
Cleaner floors
with Less work

Armstrong's
Linoleum Rugs

*Wear longer-genuine
cork linoleum clear
through to the
burlap back*

The cost is so little

"Gracious me, am I *too* getting
to be an old-fashioned drudge?

*—am I needlessly missing the leisure, the laughter,
the friendships I STILL have a right to? Surely there
MUST be some easier-to-clean floor covering."*

Armstrong's Linoleum Rugs *are* easier-to-clean.
"2 minutes mopping and—CLEAN!" And they
stay clean longer because an Armstrong Rug is
always solid, genuine cork linoleum, clear through
to the burlap back.

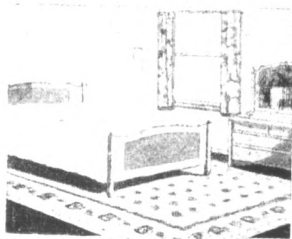
You just *can't* dislodge ground-in soil from a floor
surface that splinters and chips off into pits and
jagged hollows, without going back—hands and
knees—to the old-fashioned, back-breaking scrub-
bing brush. So let's forget that, once and for all,
and get an ARMSTRONG RUG.

ARMSTRONG CORK COMPANY
Linoleum Division
1002 Jackson St., LANCASTER, PA.



*Sitting-room and
Dining-room*

All roads lead to the dining room
and many the scuffling, soil-
stained boots along the way. Three
times a day a rush of feet, big
and little, tracking carelessly over
your floors! What more sensible,
sanitary, and fresh-smelling than
an Armstrong's Linoleum Rug
for this heavy traffic room?
"2 minutes mopping and—CLEAN!"



*Bed-room and
Nursery*

Windows flung wide, day and
night, dust settles thick on up-
stairs floors. How easy to keep
them sanitary and clean by
stroking a damp mop over, an
Armstrong's Linoleum Rug.
"2 minutes mopping and—CLEAN!"

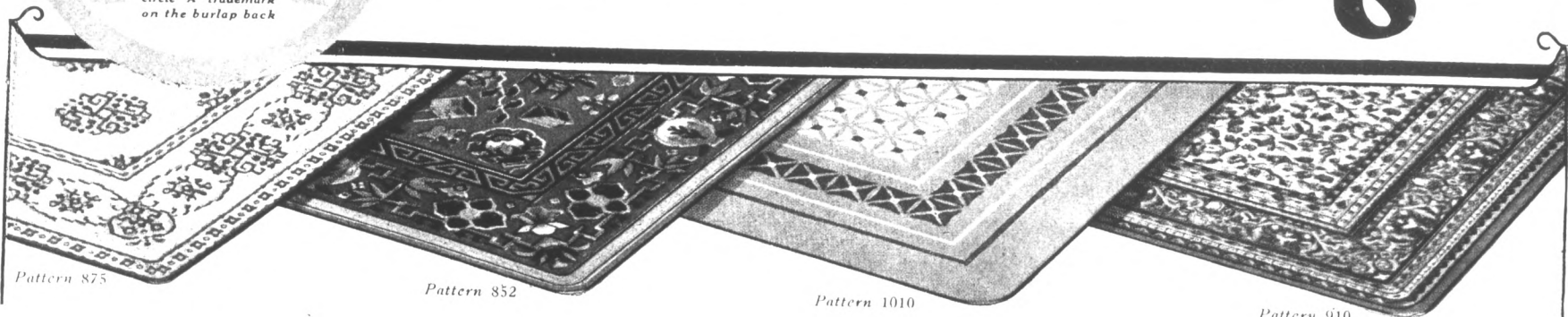
Send for
This Free Booklet
"RUGS OF
PRACTICAL BEAUTY"

Send for this book of colorplates
today. It tells you what you can
do right now to make your floors
attractive at low cost and how
you can *keep* them attractive
with far less work. Send for it
today. It's free.



Look for the
circle "A" trademark
on the burlap back

Armstrong's Linoleum Rugs



Pattern 875

Pattern 852

Pattern 1010

Pattern 910

They Have Stopped Mistakes in Painting

—with the help of the Farm Painting Guide



YOU can do the same.

Save the Farm Painting Guide, put it up on your wall in a permanent place, and then, every time you go to buy paint, varnish, stain or enamel, look at the "Guide" first.

The Guide simply makes it easy to select the RIGHT type of paint, of varnish, of stain and of enamel exactly as a color card makes it easy to select the right color; it stops mistakes in painting.

Be sure to look up
"Paint Headquarters"

The store in your community displaying the "Guide" and carrying the correct Sherwin-Williams finishes is "Paint Headquarters." Look for the "Guide" in the window and inside the store.

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SHERWIN-WILLIAMS FARM PAINTING GUIDE				
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AUTOMOBILE TOPS AND SEATS	S-W Auto Top and S-W Auto Seat Dyeing			
BARN, SILOS, OUT- BUILDINGS, Etc.	S-W Concrete and Brick Paint S-W Roof and Bridge Paint		S-W Wood Stain	
BRICK	S-W Concrete and Brick Paint S-W Concrete Wall Paint			S-W Enamel
CEILINGS, Interior	Flat Top	S-W Flat Varnish	S-W White Stain	
CEILINGS, Exterior	WEH Flat Top	Rescue Varnish	S-W White Stain	
CONCRETE	S-W Concrete and Brick Paint			
DOORS, Interior	S-W Enamel	S-W Flat Varnish	S-W White Stain	
DOORS, Exterior	S-W Enamel	S-W Flat Varnish	S-W White Stain	
FENCES	S-W Enamel		S-W White Stain	
FLOORS, Interior	S-W Enamel			
FLOORS, Exterior	S-W Enamel			
FURNITURE, Upholstery	S-W Auto Seat Dyeing			
HOUSE OR GARAGE	WEH Flat Top		S-W White Stain	
IMPLEMENT, TRACTORS, WAGONS, TRUCKS, Etc.	S-W Enamel			
RADIATORS	S-W Enamel			
ROOFS	S-W Roof and Bridge Paint			
SCREENS	S-W Enamel			
WALLS, Interior	S-W Enamel			
WOODWORK	S-W Enamel		S-W White Stain	



OPEX

Specify OpeX for repainting your auto. OpeX is the most economical and quiet with the extra benefit that it will not scratch, mar or chip off. Actually improves with use. Dries quickly—can out of the shop in a few days. Wide range of colors. Be sure to ask your auto paint shop for Sherwin-Williams OpeX.

SHERWIN-WILLIAMS
PAINTS AND VARNISHES



For
Cleaner floors
with Less work

Armstrong's
Linoleum Rugs

*Wear longer-genuine
cork linoleum clear
through to the
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The cost is so little

"Gracious me, am I *too* getting
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—am I needlessly missing the leisure, the laughter,
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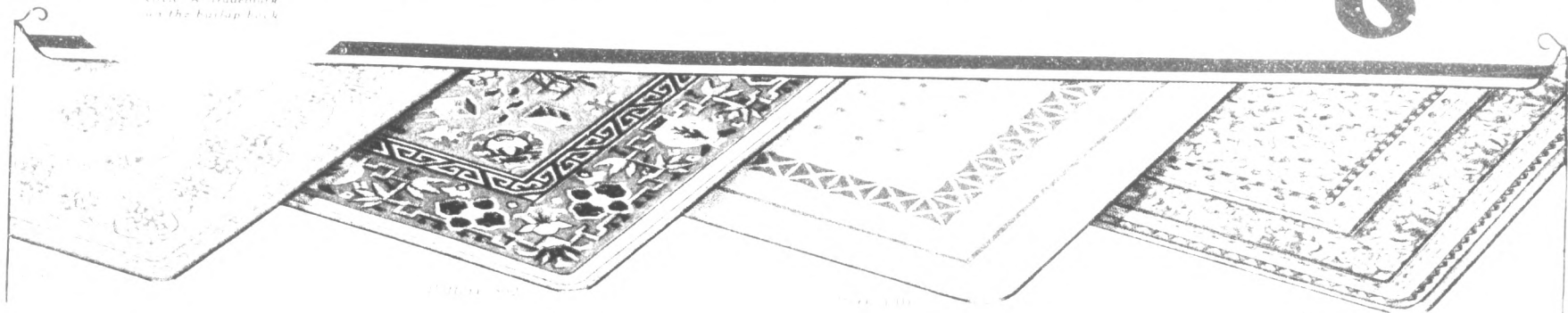
Armstrong's Linoleum Rugs *are* easier-to-clean.
"2 minutes mopping and—CLEAN!" And they
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and get an ARMSTRONG RUG.

ARMSTRONG CORK COMPANY
Linoleum Division
1002 Jackson St., LANCASTER, PA.

**Armstrong's
Linoleum Rugs**

Look for the
circle "A" trademark
on the burlap back



*Sitting-room and
Dining-room*

All roads lead to the dining room
and many the soil, spillage, soil
stained boots done the way. Three
times a day a rush of feet, big
and little, tracking carelessly over
your floor? What more sensible,
sanitary, and it is mopping than
in "Armstrong" Linoleum. Rug
for this heavy traffic room?
—mopping and—CLEAN!"



*Bed-room and
Nursery*

With low, bare soles, feet and
nails, little ones, playing on
your floor? How can you keep
them sanitary, safe, and happy?
—keep them on "Armstrong" Linoleum. Rug
for this room? —mopping and—CLEAN!"

Send for
This Free Booklet
"RUGS OF
PRACTICAL BEAUTY"

It tells you how to choose a rug
that will last, and how to care for
it. It also tells you how to choose
a rug that will look well in your
home. It is a booklet that you
will want to keep for reference.



Three appetizing JELL-O desserts

YEARS ago it was necessary for the housewife to spend much time and trouble in the preparation of desserts. Pies, puddings and other sweets required many ingredients in the making, as well as long hours spent in the hot kitchen. Then, there was always the uncertainty that the dessert would not be successful.

To-day, this has all been changed. In Jell-O, we have a dessert which is simple and easy to prepare, yet may be served in so many ways that there is always variety. It removes the uncertainty from



dessert making and provides a delicious, healthful sweet at a small cost.

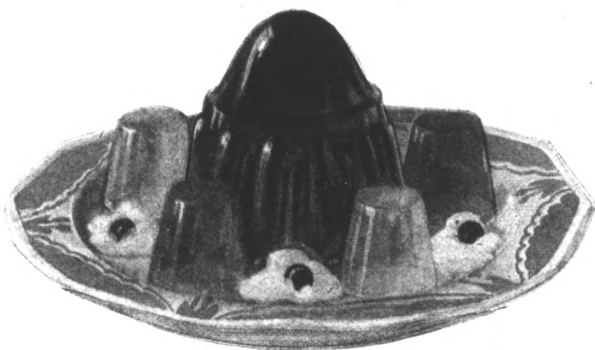
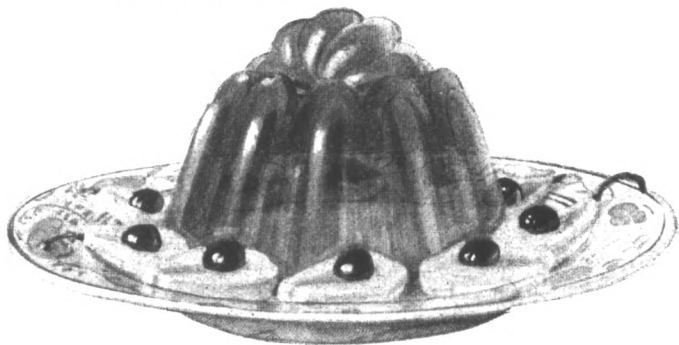
Serve Jell-O often;—give it a prominent place on your household menu. The family will enjoy it and the children usually ask for a second helping.

Three favorite Jell-O recipes are given below—many other delightful suggestions for desserts and salads may be found in the little folder in each Jell-O package or write us for our new Jell-O book. *It's Free.*



ORANGE JELL-O

Dissolve a package of Orange Jell-O in a pint of boiling water and pour into mold. Serve plain or with custard sauce or whipped cream. In the illustration below the molded dessert is garnished with sliced pears and cherries.



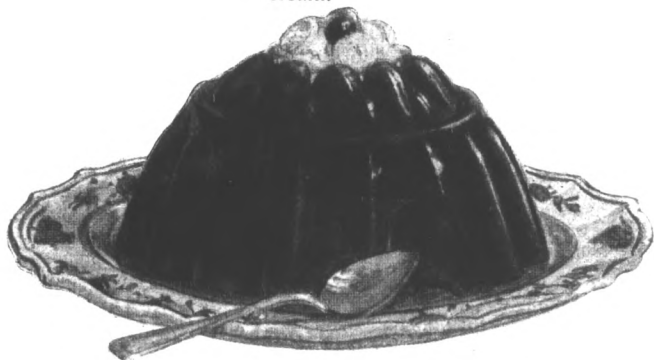
CHERRY-LEMON JELL-O

Dissolve a package of Cherry Jell-O in a pint of boiling water and pour into mold. Dissolve a package of Lemon Jell-O in a pint of boiling water and when cool pour into glasses or plain individual molds. Turn the Cherry Jell-O out on a large plate and arrange the individual Lemon molds and dabs of whipped cream topped with a cherry around it, as in illustration above.



STRAWBERRY JELL-O

Dissolve a package of Strawberry Jell-O in a pint of boiling water. Pour into a bowl or mold and set in a cold place to harden. When set, turn out on a plate and serve plain or with whipped cream.



THE JELL-O COMPANY Inc.



LE ROY~NEW YORK

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SO BIG.

(Continued from page 432).
nessed the horses, threaded her way out of the swarming street, and made for South Water Street farther east. Here were the commission houses. The district was jammed with laden carts and wagons exactly as the Haymarket had been, but trading was done on a different scale. She knew that Pervus had sometimes left his entire load with an established dealer here, to be sold on commission. She remembered the name—Talcott—though she did not know the exact location.

"Where we going now, Mom?" The boy had been almost incredibly patient and good. He had accepted his bewildering new surroundings with the adaptability of childhood. He had revelled richly in Chris Spanknoebel's generous breakfast. He had thought the four dusty artificial palms that graced Chris's back room luxuriantly tropical. He had been fascinated by the kitchen with its long glowing range, its great tables for slicing, paring, cutting. He liked the ruddy cheer of it, the bustle, the mouth-watering smells. At the wagon he had stood sturdily next his mother, had busied himself vastly assisting her in her few pitiful sales, had plucked wilted leaves, brought forward the freshest and crispest vegetables. But now she saw that he was drooping a little as were her wares, with the heat and the absence from accustomed soil. "Where we going now, Mom?"

"To another street, Sobig—"

"Dirk!"

"—Dirk, where there's a man who'll buy all our stuff at once—maybe. Won't that be fine! Then we'll go home. You help mother find his name over the store. Talcott—T-a-l-c-o-double t."

South Water Street was changing with the city's growth. Yankee names they used to me—Flint—Keen—Rusk—Lane. Now you saw Cuneo—Meleges—Garibaldi—Campagna. There it was: William Talcott. Fruits and Vegetables.

William Talcott, standing in the cool doorway of his great deep shed-like store, was the antithesis of the feverish crowded street which he so calmly surveyed. He had dealt for forty years in provender. His was the unruffled demeanor of a man who knows the world must have what he has to sell. Every week-day morning at six his dim shaded cavern of a store was packed with sacks, crates, boxes, barrels from which peeped ruffles and sprigs of green; flashes of scarlet, plum-color, orange. He bought the best only; sold at high prices. He had known Pervus, and Pervus's father before him, and had adjudged them honest, admirable men. But of their garden truck he had small opinion. The Great Lakes boats brought him choice Michigan peaches and grapes; refrigerator cars brought him the products of a California's soil in a day when out-of-season food was a rare luxury. He wore neat pepper-and-salt pants and vest; shirt sleeves of startling white in that blue-shirted overalled world; a massive gold watch chain spanning his middle; square-toed boots; a straw fedora set well back; a pretty good cigar, unlighted, in his mouth. Shrewd blue eyes he had, sparse hair much the color of his suit. Like a lean laconic god he stood in his doorway niche while toilers offered for his inspection the fruits of the earth.

"Nope. Can't use that lot, Jake. unt. H'm. Wa-a-al, guess you'd better take them farther up the street, Tunis. Edges look kind of brown. Wilty."

Stewards from the best Chicago hotels of that day—the Sherman House, the Auditorium, the Palmer House, the Wellington, the Stratford—came to Will Talcott for their daily supplies. The grocers who catered to the well-to-do north-side families and those in the neighborhood of fashionable Prairie Avenue on the south bought of him.

(Continued next week).

Fundamental Transportation

Into the vast and complicated network of Transportation in Michigan have been knit several accessory types of carriers. Yet it is noteworthy that each of these accessory carriers exists only through service by certain of Michigan's 24 Steam Railroads.

Electric railroads get their power from coal. Steam Railroads bring it to them.

Motor cars, trucks and busses use gasoline for fuel. Steam Railroads bring it from far-away refineries—bring, too, the materials for the paved highways on which motor vehicles run.

Not even ships are self-sustaining. Their coal meets them at the railhead.

Steam Railroads are Fundamental Transportation.

On their faithful performance everything else depends.

This responsibility is ever before the Steam Railroad men of Michigan. And they feel they are meeting it today better than ever before.

Does your experience confirm this belief?

Do you appreciate the absolute need of protecting this Fundamental Transportation from further restrictions adding to the cost of service?

Write this association frankly and fully.

Michigan Railroad Association

508 Railway Exchange Bldg., Detroit, Michigan

(14-27)



Plant GIANT WASHINGTON ASPARAGUS And Cut it Next Year

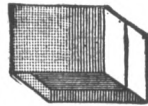
Last year our wonderful Asparagus sold in the New York market for \$15 a dozen bunches! Hardy, rust-resisting—grows easily—many stalks 2" in diameter, 8 stalks to the bunch. Our Giant Roots planted this spring can be cut next year! A packet of seeds, or 50 roots, will plant three 50-foot rows—more than enough for average family requirements.

SEED PACKET (Very specially selected seeds)—\$1.00
50 GIANT ROOTS—\$5.00
25 GIANT ROOTS—\$3.00

Cultural directions included. By parcel post prepaid, anywhere. Attractive Proposition for Large Commercial Growers.

Write for Booklet NOW—free.

Riverview Farms, Box 252 Bridgeton, N. J.



Get Low Prices on Berry Boxes and Baskets

Free Catalog! Shows you how you can save money by buying direct from the largest Berry Box and Basket Factory in the Country.

New Albany Box & Basket Co., Box 112 New Albany, Ind.

FURS

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

STRAWBERRY PLANTS

Raspberry, Blackberry, Grape, etc. Ornamentals, Roses, Gladiolus, Seeds. Guaranteed. Price low. Catalog free.

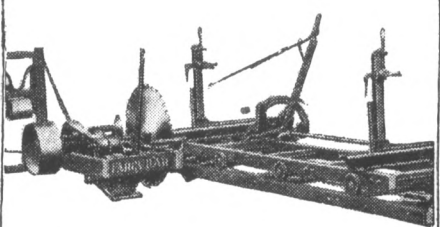
J. N. ROKELY & SON, Rt. 6, Bridgman, Michigan.

1000 Grape plants, \$17; Strawberry plants, \$3; Raspberry plants, \$3; State inspected. Guaranteed. Booklet free. Westhauser's Nurseries, box 304, Sawyer, Mich.

The Eclipse Spray Pump is simple in construction, durable and efficient. Made in several sizes to meet the various needs.

SPRAY THE MORRILL & MORLEY WAY
ASK FOR CATALOG
MORRILL & MORLEY MFG. CO.
Box 1 Benton Harbor, Mich.

SAWMILLS-POWER



Farquhar Sawmills cut accurate lumber, have large capacity and are easily operated. Built in sizes to suit the power.

Farquhar Locomotive, Deep Fire Box and "Slab Burner" Rigs deliver strong, steady power. Dependable and economical. All easy steamers.

Grain Threshers, Hay Balers, Dairy Boilers, Hydraulic Cider Presses and Farm Implements.

A. B. Farquhar Co., Limited
BOX 512, YORK, PA., U. S. A.



STOP! LOOK! LISTEN!

THE Union Pacific System offers the services of its Agricultural Department to assist you in finding

A SUITABLE FARM HOME

in any of the States served by its lines, namely:

Kansas, Nebraska, Colorado, Wyoming, Montana, Utah, Nevada, California, Oregon, Washington and Idaho.

GOOD PRODUCTIVE LAND

can be purchased at a reasonable price, and opportunities await those who will go after them.

WRITE TO ME TODAY

and let me know which States you are interested in, and I will send to you information and literature absolutely FREE. Also inquire about our

Low Round Trip Homeseekers' Fares

R. A. SMITH, Supervisor of Agriculture, Union Pacific System,
Room 225 Union Pacific Building, OMAHA, NEBRASKA.

Red Strand

-always
look for it



Lowest Cost Fence You Can Buy

"Galvannealed" Square Deal is, first of all, made of copper-bearing steel. This protects the steel against rust clear to the core. Then the "Galvannealed" process welds 2 to 3 times more zinc into the wire, than is possible by the ordinary galvanizing method. The copper-bearing steel, plus the "Galvannealed" process, makes Square Deal outlast any other farm fence. This longer lasting fence costs no more at the start. In the long run it costs only 1/3 to 1/2 as much because it lasts years longer.

Whenever you see fence marked with the Red Strand you may be sure it is that good long lasting Square Deal.

Galvannealed Square Deal Fence

Only in "Galvannealed" Square Deal Fence can you get all of these big features. Buy the best—it costs you no more.

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(1) Copper-bearing steel resists rust many years longer than steel without copper in it. Square Deal contains 15 to 30 points copper.</p> <p>(2) Only Square Deal is made by the "Galvannealed" process. Welds 2 to 3 times more zinc into the wire. Lasts 2 to 3 times longer than galvanized wire.</p> <p>(3) No Extra Price. Costs the same as ordinary kinds, but outlasts any other farm fence.</p> <p>(4) Full gauge wires. Cut prices sometimes mean undergauge wires. Use your wire gauge.</p> | <p>(5) Famous Square Deal Knot is guaranteed not to slip. Small and compact—none of the weight of Square Deal fence goes into big knots.</p> <p>(6) Stiff, picket-like stay wires require fewer posts and hold "Square Deal" tight and trim—no sagging.</p> <p>(7) Well crimped line wires, tied with the knot that cannot slip, give Square Deal live tension, secure against strains or sudden weather changes.</p> <p>(8) Every rod is marked with the Red Strand. Always look for it.</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

KEYSTONE STEEL & WIRE CO.
4946 Industrial St., Peoria, Ill.

Write for Official Proofs

from Indiana State University, R. W. Hunt Company, Chicago; C. F. Burgess Laboratories, Madison, Wisc. They tell why Square Deal must outlast any other farm fence. We'll also send catalog—and—Ropp's Calculator which instantly figures crop values, interest, costs and 75,000 other problems. All 3 free to landowners



A Mosaic

Our Weekly Sermon—By N. A. McCune

K NOW what a mosaic is? It hasn't anything to do with Moses. The dictionary says, "Mosaic—a surface decoration made by inlaying in patterns small pieces of variously colored glass, stone, or other material. Something resembling mosaic, as a literary composition." This is review week, being the end of the quarter. I have several things in mind, and it is most like a mosaic of anything I can think of. The various parts are assembled, but they have no special relation to each other.

Did you read the report of the missionary congress in Washington? It is worth thinking on. Five or six thousand thoughtful Christians met in Washington last month to think about world problems. The one fact they all agreed on was, that America must first be christianized. A pagan America, or a fifty per cent pagan America is the biggest obstacle in the path of world-wide progress in knowledge of Christ. The peoples where the missionary is working no longer believe that all America is like the missionary. They get it from many sources that the U. S. A. has its full share of greed, injustice, crime, race hate, unequal opportunity, and all that. Lynchings are promptly and fully cabled to the old world, and appear in detailed description in the press. So that those who have been saying that America needs a lot more religion ought to be satisfied. America needs christianizing and needs christianizing now.



FURTHER, the missionary congress said that international contacts should be christianized. We ought to get along with other nations at least as well as we get on in our own neighborhoods. And still further, these big-visioned men and women said, the churches must cooperate in missionary work. When Tokyo was rebuilt the work of missions was not unified. Each rebuilt for itself, instead of pooling their interests.

To pass to another subject, it has been forcibly brought out of late that poor folk need personal attention more than they do money. That is, large numbers do. The annual report of the New York Association for Improving the Condition of the Poor has just been published. Six thousand and more families were visited by members of this association during the year. "It cannot be emphasized too strongly," says the report, "that the greatest need of many families is personal service. This service is less understood and often more difficult to provide than material relief. Without it material relief is a very incomplete remedy in most family situations and many difficult family troubles, anxieties and distress require nothing but skilled personal service." Of Christ it was said, "Himself took our infirmities and bare our sicknesses." The need of personal attention to people could not be better illustrated than in the report of this society. It was said a year ago that we are tending to have too many specialists in medicine and too few first class family physicians. When the time comes that the family physician and the minister of religion go, some other sort of profession will come in to take their place. People need counsel, encouragement, hope. They frequently require surgeons to operate on the backbone, replacing gristle with lime.

To slip another piece of colored glass or bit of stone into our mosaic, note another experiment which our government is trying in international goodwill. You will recollect that the United States government did not demand all the indemnity money from China which was coming to her from the Boxer Rebellion. About one-half was used as a trust fund for educating bright Chinese students in American universities. These government students are to be found scattered in many institutions of learning. The first experiment is working so well that the department of state is going to try another. Last autumn a mob gathered in Teheran, the capital of Persia, and murdered the United States minister. Our government demanded a payment of \$60,000. I believe it was, from the Persian government, plus the cost of sending a gun boat to bring home the body of the deceased official. The cost of the government ship's trip was \$110,000, which the Persians paid. This \$110,000 is now to be used as a trust fund for the education of Persian students in universities in the United States, if the proposal of our government is accepted. Thus it is hoped to establish friendly relations between the two countries.

All interest does not center in the cities, as it sometimes seems that it does. The Institute of Social and Religious Research is now prosecuting a study of villages in the United States. Some of these studies are now completed. Those in the east are shown to have grown only one-third as fast as the country as a whole. The great majority of village population is American born, is white, and was born in the state in which it now resides. The proportion of women to men is much greater in these villages (thirty-four in this study), than in the cities.

THE school attendance is much better in the village than in the city, especially among older girls. Illiteracy is only about one-third as great as in the cities, owing to the smaller per cent of immigrants. It is an interesting fact that village life is being given more attention of late years. Main Street has some virtue yet. The old saw about God making the country, man the city and the devil the little country town, may have to be revised. It would add to the happiness of many thousands if village life could be made more acceptable. The long trek toward the cities would slow up, and life would become more normal and rewarding for multitudes of people. The public schools are fast becoming better in villages, but the church and wholesome recreation methods do not move so rapidly.

Something new in the way of benevolence was proposed a short time ago by Mr. Nash, of Cincinnati—"Golden Rule Nash." Mr. Nash belongs to the Universalist church, which is setting out to raise a million dollars for promotional purposes. He asked his Universalist co-religionists whether they had enough of the Christlike spirit to raise as much for religious causes outside of the denomination as for denominational ends, and offered to give one-tenth of this second million. He proposed to give a part of this extra million to the Federal Council of Churches, which does not recognize the Universalist denomination. Without any particular attempt at promotion, this fund has already reached \$40,000. A Baptist has agreed to double Mr. Nash's gifts. A Jew and a Roman Catholic each gave \$5,000. This kind of thing seems to be catching.

SUNDAY SCHOOL LESSON FOR
MARCH 29.

REVIEW:—Closing Period of Christ's Ministry.
GOLDEN TEXT:—Jesus Christ is the same yesterday and today, yea and forever. Heb. 13:18.

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Rural Health

By Dr. C. H. Lerrigo

SPRING FASHIONS.

HERE is a spring fashion note. Don't wear winter clothing into the mild weather of spring. It is absurd to drag around with the same weight of clothing you have worn all winter and then complain of "that tired feeling." Rash changes of underwear may bring disaster, but ten times as often does it come from sweating through a warm day in winter clothing. If you fear to discard winter underwear you can at least regulate the weight of the outer garments.

I do not take spring tonics. I do not even indulge in sarsaparilla or sassafras tea. You see, I do not believe that the blood thickens up in winter and must be thinned out, neither do I think that it is laden with impurities that a spring medicine will drive away. Therefore it would be absurd for me to cultivate a taste for even so mild a laxative as sassafras. But if you feel that a spring tonic is imperative I can recommend nothing better or safer than the old-time remedies I have mentioned, and whatever their other qualities, they are at least innocuous.

Regardless of tonics, spring does call for a few changes in your mode of living. Don't continue to stoke up your body furnace with the heat-producing foods you have used all winter. Leave off hot cakes and syrup, eat less fats and sweets. Take more vegetables, canned and fresh fruits, milk and eggs. Rhubarb is a mighty good spring food, and so is spinach as soon as it comes. The human body is more than two-thirds water. Be sure to replenish the supply by drinking not less than half a gallon a day.

BABY CRIES FOR WATER.

My baby cries a good deal and I have been in the habit of giving him a bottle of hot water to keep him quiet. He has got so that he seems to have the bottle in his mouth most of the time now. Please tell me if there is any harm in it?—G. H. H.

There is no harm in giving the baby hot or cool water at regular intervals; in fact, it is a very good practice that is too much neglected. Neither is there harm in giving the hot water occasionally when there seems to be an accumulation of intestinal gas. But it should be only on special occasions. Instead of quieting the baby by giving the bottle whenever he cries you should find out why he cries and seek to correct the error in his feeding or whatever it may be that causes his distress. The habit that he now has is distinctly harmful for many reasons and you must proceed at once to break him of it.

GOING BACK TO WORK AFTER ERYSIPELAS.

How soon is it safe to resume work after a severe attack of erysipelas of head and face, leaving one extremely weak?—D.

This cannot be measured in days or weeks. It depends wholly upon the restoration of strength and vigor. This is a wasting disease and no attempt should be made to resume work until the poison is eliminated and strength is restored.

SERUM FOR TETANUS INFECTION.

A neighbor has just died of tetanus caused by getting cut up in some rusty barbed wire. The doctor says that his life would have been saved if he had been given a shot of serum when the accident occurred. But how are we farmers to tell? We are always getting cuts and scratches. How do we know when to have the serum injected?—J. K.

This is a question that has puzzled

me ever since anti-tetanic serum was first introduced. The germs of tetanus may be anywhere about old stables and such places, and it is obvious that a man cannot have a treatment for every injury. I would insist on the treatment, however, when the scratch or cut is of a penetrating character, when a very deep cut gives little bleeding, or in any injury in which there are multiple lacerated wounds.

DIABETES.

What is the real cause of diabetes and first stages of this sickness? Or does it start through another illness and does one have stomach trouble? Advise what to eat and can one outgrow this disease?—Reader.

Diabetes is due to the failure of the pancreas to supply the sugar and starch digesting ferments. Usually it comes on gradually and quite frequently is discovered by accident. It may be that some cases are due to taking too much sugar; but that is not true of all cases. Every person with diabetes ought to have a diet worked out to suit his own case. It is not possible to lay down a general law to fit every one. Insulin is a great aid in bringing the patient into better condition and controlling the weakness and loss of flesh.

SUNSHINE HOLLOW ITEMS.

Walter Jones says it isn't always how early you get up but what you do afterwards that counts a lot on a farm.

According to Uncle Oziah Filkins, the noisy, squawky windmill don't always pump the most water.

Millard McCann says the best farmers in his section always have the best luck.

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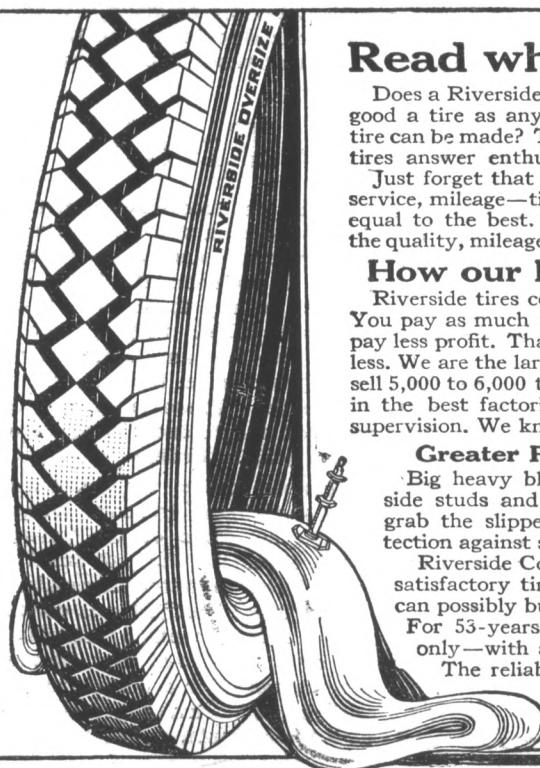
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Chas. F. Poor,
Danvers, Mass.

"A Riverside Cord on my Buick, with your heavy duty tube, has run 15 months, in use every day, and it still has in it the same air put in 15 months ago. 'That's going some!'"
D. S. Robbins,
Las Cruces, N. Mex.

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Woman's Interests



How One Woman Contents Herself

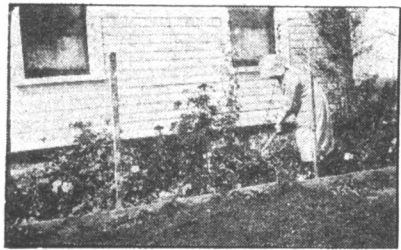
When Children Left Home Mother Nature Helps Her to Overcome Lonesomeness

"To me it has meant more than added health. It has been something to fill the break as the home brood have scattered, first away to school and this year they are all away teaching. As we get older we need something in particular to save us from ourselves," says the author, who is a farmer's wife over in Jackson county. She tells of the means whereby she has worked out her salvation of contentment on the farm after the children had left home.—Ed.

YOU often hear people say that they love the country, but not the drudgery of the farm. It is true that there are long busy days on the farm, but why not become ardent Nature lovers and let her make us large returns in health, pleasure and possibly profit.

Begin now by bringing in twigs of flowering shrubs and trees, cut from the latter part of February up into April. The earlier bloomers to be brought in first and the late bloomers last. Place in water in a sunny window, changing the water occasionally and adding a little chamois to help keep it sweet. Forsythias, pussy willows and poplars respond quickly. I have had forsythea blossoms come out in ten days, cut the fore part of March.

Others which do well are spireas, flowering almonds, flowering currant,



Caring for Flowers Develops Health and Beauty.

cherries and plums, but few are disappointing. Select twigs with plump buds as they contain the flower buds, and the slender ones leaves only. A study of the bursting buds indoors will make you more observing of outdoor shrubs and trees.

Of the books which I have had from the libraries I would like to tell you of a few which I have found most helpful. "Trees Every Child Should Know," by Julia Rogers, is very clear and concise. "Our Nature Trees and How to Identify Them," and "Our Northern Shrubs and How to Identify Them," by Harriet Keeler, also "Field Book of American Trees and Shrubs," by Schuyler Matthews, are more complete and higher priced. There are also flower books by the above authors but I have found "The Flower Finder," by George Walton, the best of all for just a flower lover. The flowers and fruit are classified according to color so that it is much easier to identify them. Learn the joy of becoming familiar with our native flowers, from the early buttercup to the beautiful fringed gentian, which loves to have its feet in the water, its head in the sunshine.

Spring is the best time to begin a wild flower garden, as most plants can be moved while in bloom, if carefully done, when you can be sure just what you are getting.

Among our native vines, none are better for the porch, than the bitter-sweet, but it is seldom used. From fence row and roadside I have moved to the home grounds; the chokeberry, with its dainty white blossoms and

red-tipped stamens, the American bladdernut whose small balloons will keep through the winter if gathered in July; the viburnums and the shad bush or June berry which is one of our earliest bloomers.

Farmers' Bulletin No. 1087, "Beautifying the Farmstead," will help in the arrangement of plantings.

For the busy housewife the garden is the easiest place to grow flowers, where the horse and cultivator does part of the work. Everyone has their favorites, but in annuals choose those with a long season of bloom. The California poppy, early cosmos, phlox, sweet sultan, calliopsis, and mourning bride are all early and continuous bloomers, also fine for cutting and, of course, the aster is indispensable for fall flowers. Plan to add some hardy bloomers every year, as the iris, peonies, phlox and hardy mums, and there are many hardy perennials which may be easily grown from seed and will last for years if given a well drained location. Some of my favorites are sweet rocket, shasta daisy, pyrethrum, larkspur, coreopsis, sweet Williams, gaillardia and Canterbury bells. The coreopsis and gaillardias are fine for cutting and will bloom for a long time if kept from seeding. If you are not familiar with the modern Canterbury bells you will be delighted with the long spikes of large flowers.

The seed catalogs tell you to sow perennials in August, but it is often too dry for them to start, and those that do are too small to survive the winter. I have had much better success with spring-sown seed.

Last, but not least, the vegetable garden. I have never had a hot-bed but have a seed-bed in a protected corner south of the house, and plants from it are very hardy if not extremely early. Let your garden furnish variety for your table, and health for your family, as well as a saving in grocery bills. Plant hardy things early and in succession. If you have never

tried kale or endive, plant in July or early August for fall use. Study the seed books and try something new, with the new and the old in sufficient quantities for canning, making the garden a joy the whole year.—Mrs. H.

TO TEMPT SPRING APPETITES.

Rice Fluff.

1 cup rice (cooked in plenty of hot water) 1 cup whipped cream Maple syrup

Cook the rice in plenty of hot water and when thoroughly done drain and rinse with cold water two or three times to separate the grains well. Add the whipped cream and then pour over this maple syrup.

Marshmallow Salad.

1 lbs. marshmallows, 2 tart apples, cut into small pieces
1/2 lb. dates, pitted Few nut meats
and cut up

Blend with the following dressing:

2 eggs beaten 1 tsp. mustard
1 cup sugar 2 tb. flour
Butter size of egg 1/2 cup cold water
1 tsp. salt 1 cup vinegar

Cream all together before adding vinegar and cook until thickened. I use about two-thirds cup of dressing to half cup of whipped cream.

Salmon or Tunny Salad.

1 can salmon or tuna 1 cup sliced celery

Drain oil from fish, remove bones and bits of skin. Add celery and mayonnaise or salad dressing. Arrange on lettuce leaves and garnish as desired.—E. L. H.

USES FOR OLD STOCKINGS.

NEVER throw away an old stocking. Stitch together by machine four or five thicknesses and you have excellent "holders" for hot pans, etc. Put a few drops of kerosene on one and shut it in a tin can over night and you have a dustless duster. Slip the legs over glass fruit jars to protect them from the light. Lightweight underdrawers for children can be made from long stockings, with the addition of a waist band. Keep a woolen sock

to slip over the hand to rub over the kitchen range each day, it is an easy way to keep it bright.

HOMESPUN HINTS.

I have discovered that rubber bands are very useful in the work basket to snap around balls of crochet cotton to keep it from unwinding, also use a rubber band around a cook book to mark your page. I always save all rubber bands and find a purpose for them.

When making button holes in thin or sheer materials, try rubbing a little library paste, or laundry soap on the wrong side of the goods and allow it to dry before cutting the button holes. This gives a firm surface on which to sew, and it will not discolor the most delicate fabric.

Add a little table salt to gasoline when cleaning spots from clothing and you will find there will not be a circle after the goods dries. Brush the salt from the garment before pressing.

When thickening gravy, add a tiny little salt to the flour and the gravy will not be lumpy.—Mrs. A. K.

MAKE SPRING DRESSES AT HOME.

THE advent of spring brings with it a demand for new dresses. Many of these can be made at home. Our Bulletin, "Dressmaking in the Home" will help you solve many of your sewing problems. It contains ten fully illustrated lessons on how to make the various stitches and seams, how to cut and make linings and fitted waists, rules for taking individual measurements and making alterations of patterns, special lessons on making skirts, waists, sleeves, cuffs, girdles, and fitting the necklines, construction of coats and jackets, how to make underwear, all about the layette, how to make boys' clothes, and the various



ways to mend and darn the jagged tears in different kinds of material.

There is also available to our readers a bulletin, "Art of embroidery." This little book contains ten fully illustrated lessons showing how to make the various embroidery stitches and the kind and color of material to use. The price of each bulletin is 25 cents. Address your requests to the Handwork Dept., Michigan Farmer, Detroit, Mich.

A Fool's Day Frolic

HOMER has said, "Even the fool is wise after the event," so let us plan a Fool's Day Frolic for our spring entertaining.

The invitations should announce the character of the frolic. Write them on torn cracker-box wrappings and send them in the largest paper sack you can buy. Each guest is requested to dress to carry out the "foolish idea," either their clothes are worn topsy turvy or they may come attired as some sort of fool. Perhaps you never realized how many different varieties of fools the world contains but this party will show you.

One can dress in red with jingling bells, another in white muslin and wired hat, with A B C market on each side in black letters to represent a blockhead.

Others can wear a dunce cap and appropriate costume. A little fat person with a high hat can represent "Puck."

It is unique to have the walls of one room decorated with magazine pictures pinned to the wall bottom side up, and the furniture placed very much awry.

When the guests are assembled in the living-room the host calls attention to numerous pans of pop corn placed in convenient places and invites all to help themselves. Some are surprised when they plunge their hands into the pans to find only a layer of pop corn on top and underneath cold water. These jokes can then be removed and replaced with huge pans of the genuine article.

Between games the hostess might pass a plate of delicious home-made candy, but some of the guests find their chocolates to be small onion sets dipped in bitter chocolate.

The "April Fool" idea is carried out in the refreshments by serving them all in a ridiculous way, sandwiches may be passed in a bushel basket lined with straw. Pickles are served in a new wash basin, coffee poured from the teakettle, and doughnuts strung on fishing poles. Finally each guest may be handed a little box and a small package from a large market basket, telling the guests that they are April fool souvenirs, but after enjoying many fool surprises they open them to discover ice cream and cake.—M. C.

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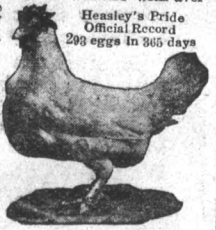
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English Producer White Leghorn Larger size 5-lb. hens. The kind for farmers and egg producers. Strong husky chicks our specialty. \$15 per 100. Eggs \$8.00. Free Catalog. Mapleside Leghorn Farm, Box O, Tremont, Ill.



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Chicks from heavy laying strain, S. C. White Leghorn, mated with Eckhard Cockerels from M. A. C. Also chicks from old hens, fine birds, culled stock. If chicks wanted don't delay. Send for price list. First Ave. Hatchery, Owner, John DePree, Holland, Mich.

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Both Combs, Michigan's Greatest Color and Egg Strain. Chicks and Eggs from Vigorous, Hardy Stock. Our 16th Annual Catalog is yours for the asking. Write for it. INTERLAKES FARM, Box 39, Lawrence, Mich.

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Egg Bred Barred Rocks Chicks and hatching eggs reasonably priced. Our free catalog describes them and is full of money making poultry information. Send for it. Gift Edge Barred Rock Farm, Gobles, Mich.

CHICKS Barron S. C. W. Leghorns, \$11 per 100. Live delivery guaranteed. Ten extra with each 100 if ordered five weeks in advance. WATERWAY HATCHERY, R. 4, Holland, Mich.

Doings In Woodland

BROWNIE HAS A BIRTHDAY.

THERE was hustle and bustle in the house where Rolly Rabbit and Bruin lived. The smoke curled briskly from the chimney. Every now and then Bruin could be seen by the window with a dust cloth in his hand.

Even the odor from the kitchen, as one passed by, told of some anticipated event. First you would smell new-made bread, then sugar cakes, then roasting nuts. A long row of cranberry tarts smiled at you from the kitchen window sill.

One could but wonder the reason for all this bustle and then, "Why, yes," Brownie would be one year old



One Bright Candle Shown in Middle.

tomorrow, and there was to be a birthday party.

Perhaps you, my little readers, are surprised that Brownie should have a birthday party when he is only one year old. But a little bear, when he is only one year old, is much larger than you are even now. He can frisk about, play games and talk in his animal language as much as you could the first day you went to school.

So it was that the next day brought all the little animal folks to Rolly Rabbit's house for Brownie's birthday party. There was little Jackie Rabbit, Sandy Squirrel, Willie Woodchuck, Charlie Coonie and Bennie Fox.

And what fun they did have. They played games, "Blindman Bluff," and "Hop Scotch." But best of all they liked to play "Falling Leaf." Perhaps some little boys and girls would like to play the same games the animal folks play in Woodland, so I will tell you how they did it.

All the little animal folks were divided equally and formed two parallel lines about two yards apart facing each other. One side was named Red, and one side was named Brown. Each side chose a goal.

Little Charlie Coonie was "it." He blew an oak leaf as high into the air as he could. If it fell with the red side up the Reds must run to their goal, and the Browns try to tag them. If the Browns succeeded in tagging a Red they must then become a Brown. If the leaf fell with the brown side up the Reds did the tagging.

After all the little animal folks had played a long time, they went in to enjoy the lunch Rolly and Bruin had prepared for them. There were all the good things one had smelled in the kitchen the day before. But best of all, there was a large birthday cake all powdered with sugar and with a bright candle shining like a little star right in the middle. Just one candle, because Brownie was only one year old.

Then Brownie made a wish by that candle. If he could blow the candle out at one puff his wish would come true. At the first blow out went the candle. Brownie didn't tell what his wish was. Perhaps he wished that he would be a bigger bear next year, and could have two candles on his birthday cake.

Paste an envelope to the inner back page of your cook book. It makes a fine receptacle for the recipes you clip from papers and magazines and wish to keep for reference.

Real Investment

If you were to turn all of your investments into cash today, could you realize 100 cents on the dollar?

The probabilities are not in your favor, as the value of your investments, most likely depends on the marketability of your particular investment.

In other words, in case you desired to cash your investment you would have to find a buyer. This is true whether your investment is a bond or a high class stock.

The value of your investment could only be determined at the time of sale and by the price paid you by the buyer—which usually means at a discount or loss.

The availability of the investment is just as important as the safety of the investment.

That is why an investment with this company is so popular.

The investment is always worth 100 cents on the dollar—it is not necessary to find a buyer—you are not at the mercy of a falling market. There is nothing to discount—you can draw your money any time. Every dollar invested, plus earnings of 4½, 5 and 6 per cent.

Ask for booklet and financial statement.

Resources \$8,200,000

Established 1889

The National Loan & Investment Company

1248 Griswold St., Detroit, Mich.

Detroit's Oldest and Largest Savings and Loan Association

Under State Supervision

TIES

Knit Ties, 3 for \$1.00, postpaid.

Agents Wanted

E. F. REINHARD, 2355 Highland Ave., Detroit, Michigan



PIN A DOLLAR BILL

to this adv and receive this folding hardwood Stepladder-Stool by express; handy for window washing; write name and address plain. Harper Mfg. Co., Cassopolis, Mich.

POULTRY



CHICKS—EGGS—PULLETS

Guaranteed to be from high producing stock.

EGGS—\$5 per 15. From Aristocrat strain exhibition Barred Rocks and Fairview Reds.

CHICKS Special Star Mating, Barron White Leghorns & Mottled Anconas \$15 per 100. Selected Utility Rocks and S.C. Reds. \$13 per 100—Selected Grade A Barron White Leghorns and Mottled Anconas. FAIRVIEW POULTRY FARM, Box 208, Zeeland, Mich.

Chicks—Pullets

High quality stock. Delivery 100% live and strong guaranteed. Chicks every week. Eight weeks and 3 mo. Pullets.

Barred and White Rocks, Reds, White and Silver Laced Wyandottes, White and Buff Orpingtons, Black Minorcas, Anconas, White, Brown and Buff Leghorns. Send for Chick or Pullet Circular with price list.

STATE FARMS ASSOCIATION
Kalamazoo, Michigan.

Active Member International Chick Association
Member Michigan State Farm Bureau



White Leghorns

Tanned - Hollywood - Barron Sired S. C. White Leghorn chicks. Pure-bred. All free range. Best winter laying strains. Selected 100, \$13; 500, \$22.50; 1,000, \$120. Selected Star-A, 100, \$15; 500, \$72.50; 1,000, \$140. Postpaid. Full live arrival guaranteed. Illustrated catalog free.

Highland Poultry Farm, R. 9, Box C, Holland, Mich.

L-O-O-K!

Can ship chicks of high grade quality at once. Barred Rocks, Reds, White Rocks, 15c each. Wyandottes, Buff Orpingtons, Buff Rocks, 10c. White, Brown Leghorns, 12c. Anconas, 13½c. Mixed heavies, 12c. Mixed light breeds, 9½c. May chicks \$1.00 per 100 less. Order direct from this adv. If less than 100 is wanted add 35c extra. Hatching eggs. Free circular tells about 15 first class varieties. Bank Reference. Lawrence Hatchery, R. 7, Grand Rapids, Michigan.

BABY CHICKS Ten FREE

with every 100 order. Plymouth Rocks, White Rocks, White Wyandottes, Reds and White English Leghorns. Order now and get the best at DURAND POULTRY FARM & HATCHERY, Fenton, Mich., Box 404.

Big 5-Lb English W. Leghorns Larger hens, better hatching eggs. Free catalog describes them and is full of practical, money making poultry information. Send for it. A. W. WAUCHEK, Gobles, Mich.

Michigan Farmer Patterns

No. 4905—Child's Play Suit. Cut in four sizes, 2, 3, 4 and 5 years. A four-year size requires 2¼ yards of 27-inch material. Price 12c.

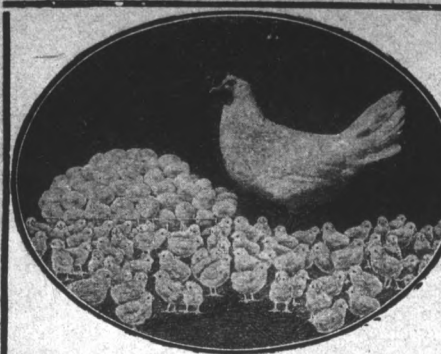


No. 4907—Girls' Dress. Cut in four sizes, 4, 6, 8 and 10 years. A six-year size requires 1¼ yards of 32-inch material for the guimpe, and 1¾ yards for the dress. If guimpe is made with short sleeves it will require one yard. Price 12c.



No. 4877—Girls' Coat. Cut in five sizes, 6, 8, 10, 12 and 14 years. A 10-year size requires 3½ yards of 40-inch material. Price 12c.

No. 4902—Girls' Dress. Cut in four sizes, 8, 10, 12 and 14 years. A 12-year size requires 2¾ yards of one material 40 inches wide. Price 12c.



S. C. White Leghorns Chicks—Eggs—Stock

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

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

Wyngarden Strain

WHITE LEGHORN BABY CHICKS

Tancred Holly-wood Barron

Brown Leghorns Anconas Barred Rocks

EGG BRED for 19 YEARS

Males from 298-304 egg ancestry; hens from 260-289 ancestry. Every chick strong and healthy, broods making uniform flocks that average high in egg production. 100% safe arrival guaranteed. In short, we sell you profits—how much do you want? Read our catalog for full information.

Wyngarden HATCHERY & FARMS
ZEELAND, MICH., BOX M

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

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

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

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

100% Live Delivery — Postage Paid

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

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



TYRONE POULTRY FARM

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

3000 CHICKS GIVEN AWAY TO OUR CUSTOMERS DURING 1925.

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

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

YPSIFIELD HIGH GRADE CHICKS

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

	100% live delivery guaranteed per 50, 100, 1000.	
English Type White Leghorns, Grade A.....	\$9.50	\$18 \$85 \$105
English Type White Leghorns, Grade B.....	8.50	16 75 145
White Wyandottes.....	8.50	16 75 145
Barred Rocks.....	8.00	15 72 140
Rhode Island Reds.....	8.00	15 72 140

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

Early Maturing BABY CHICKS

From Pure Bred, Blood Tested Stock

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

MILAN HATCHERY, Box 4 Milan, Mich.

HUNDERMAN'S CHICKS

FIRST CLASS CHICKS \$10 per 100 and up. From pure-bred flocks on free range, culled by an expert. 100% Live Delivery Guaranteed. Postpaid prices 25 50 100 500 1000

English S. C. White Leghorns.....	\$3.50	\$6.50	\$12.00	\$57.50	\$115
S. C. Brown Leghorns.....	3.50	6.50	12.00	57.50	115
Barred Rocks, S. and R. C. Reds.....	4.25	8.00	15.00	72.50	140
Mixed assorted, 25, 50, \$5.50; 100, \$10. Ref.: State Commercial Savings Bank. Order You take no chances. Hatched in Blue Hen Incubators. 10% down books your order. Free Catalog. HUNDERMAN BROS., Box 36, Zeeland, Michigan.					

Dundee Chicks

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

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

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

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

DUNDEE HATCHERY, Box A, Dundee, Michigan

BUY "GENEVA" PURE BRED HEAVY LAYING CHICKS

Postage prepaid to your home. Prices on 50 100 300 500 1000

S. & R. C. Wh., Br. & Buff Leghorns, Anconas.....	\$7.00	\$13.00	\$38.00	\$62.00	\$120
Barred & Wh. Rocks, Reds, English Wh. Leghorns.....	8.00	15.00	44.00	72.00	140
Bl. Minorcas, Wh. Wyandottes, Buff Orpingtons.....	8.00	15.00	44.00	72.00	140
Blue Andalusians, S. L. Wyandottes, R. I. Whites.....	10.00	18.00	52.00	86.00	140
Mixed, all varieties.....	5.00	10.00	29.00	48.00	95

We have Personally Inspected All of Our Flocks since Jan. 27th, and Found Them to be Healthy and Free from the New European Pest. Veterinarian's signature furnished to Verify Health of Our Flocks. Pure-bred, free range, carefully inspected flocks. Hundreds of pleased customers. 100% Live Delivery Guaranteed. Free Catalog. Reference: Bank of Geneva. Member I. B. C. A. GENEVA HATCHERY, BOX 29, GENEVA, INDIANA.

HILLCROFT FARM

A REAL Poultry Farm, not simply a Hatchery. Chicks from pure-bred flocks of the leading heavy laying strains, fed and housed to insure health and vigor.

100% Live Delivery Guaranteed	25	50	100	500
S. C. White Leghorns, (Special Heavy Laying Strain).....	\$3.75	\$7.00	\$13.00	\$62.00
Barred Rocks, S. C. Reds.....	4.25	8.00	15.00	72.00
White Rocks, White Wyandottes.....	5.00	9.00	17.00	82.00

Free Circular. Bank Reference.
HILLCROFT FARM, Box 31, Coopersville, Michigan.

Poultry

THE IMPORTANCE OF BREEDING.

(Continued from page 419).

for a four and a half pound cockerel, at the risk of having my friends and neighbors make an effort to secure a boarding place for me at the State Hospital in Kalamazoo. A few weeks ago I was offered \$50 for the old cock bird, after I had had three years of his service, which offer I refused. This old cock bird was the sire of the pullets in the third pen in the Michigan 1922-1923 contest, and either the sire or grandsire of every hen in our 1923-1924 contest pens. He is the grandsire or great grandsire of about half of all the Single Comb White Leghorns in the 1924-1925 Michigan Egg Laying Contest.

He sired in 1922 more than one hundred 200-egg hens. He has paid the best of any investment I ever made in the poultry game, and would have paid just as well had I been in the game only as a commercial producer or farmer instead of as a breeder.

The average farmer is already feeding and managing his to-be high record hens pretty well, but is not giving them such breeding as will permit them to develop into the high producers he would like to see them become.

Not every male hatched from eggs laid by a hen with a good record will prove to be the sire of as many high producers as the old bird I purchased from Mr. Tancred, but one is taking less chance when purchasing the sires of their future layers if they buy pedigreed birds with real egg breeding back of them, than if they purchase males of unknown ancestry just because they are cheap or look well.

The great need in the chicken game in Michigan is higher average flock production, and better breeding is the main way by which this desirable change can be brought about.

POULTRY HOUSE CONSTRUCTION.

IN his talk on poultry house construction before the poultry producers' meeting at the college, J. A. Hannah stated that the open front house is too cold for profitable winter production. Muslin curtains are not being recommended as they clog with dirt and retard the circulation of fresh air. The Michigan type poultry house recommended by the college has a system of air intake which is proving satisfactory and a diagram of this house can be obtained by addressing the college poultry department.

If a poultry house keeps dry, does not show frost and contains no odor of hens, the ventilation is all right. Dropping boards are necessary and the droppings should be removed each day as they may spread disease. The perches should be on the level. With the step ladder system of roosts the hens fight each night for the highest perch.

Hens need eight inches of perch space for heavy breeds and six inches for the light breeds. The perches should be ten inches from the rear wall and fifteen inches apart. Run the dropping boards the way they are to be cleaned and it is possible to do thorough scraping with the least effort. If the boards in the house now run the other way, their condition can be improved with a thin covering of asphalt to make a smooth surface which can be cleaned easily. Two-inch poultry netting under the roosts will keep the hens from walking in the droppings.

Concrete Floor Best.

The concrete floor is best for the poultry house. The dirt floor is not good because it is hard to clean. Build up the concrete floor a foot high with sand or dirt and pack it down. One and one-half inches of concrete is all that is necessary to make a strong



Watch 'Em Grow

Superior pure-bred baby chicks purchased for a few cents a piece grow quickly into steady dollar producing birds. Before you know it the cockerels are ready for market and the pullets have started to lay.

They are bred to pay from such famous prize winning and egg-laying strains as Tom Barron and Hollywood White Leghorns. Hatched in largest hatchery in Michigan.

Write for Catalog and special low prices. Satisfaction guaranteed. Book your orders now for early deliveries. Write TODAY.

SUPERIOR POULTRY FARMS
Box 200
ZEELAND, MICH.
Superior Pure Bred Baby Chicks

Send for Catalogue

BOWERS Colony Brooder

Burns any fuel—costs less

This brooder raises more and better chicks at lowest cost. Stove is sturdy, safe, air-tight, self-regulating—best in world to hold fire. Burns soft coal better than any other brooder. Also burns hard coal, wood, etc. Automatic regulator maintains uniform heat night and day. Canopy spreads heat evenly over chicks, gives pure air. 500 and 1000 chick sizes. Backed by 8 years' success. Guaranteed. Express paid E. of Rockies. Stovepipe outfit sent FREE with brooder. Lowest price. Write us TODAY.
F. M. Bowers & Sons
1423 W. Wash. St.
Indianapolis, Ind.

140 Egg Incubator \$13.95
30 Days Trial

Freight Paid east of the Rockies. Hot water, copper tanks—double walls—dead air space—double glass doors—a real bargain at \$13.95. Shipped complete, set up ready to use.

140 Egg Incubator and Brooder - \$17.75
180 Egg Incubator Alone - 15.75
180 Egg Incubator and Brooder - 22.00
250 Egg Incubator Alone - 22.75
250 Egg Incubator and Brooder - 31.00
340 Egg Incubator Alone - 30.75

Made of California Redwood. Order direct from this ad. 30 days trial—money back if not pleased. If not ready to order now, don't buy until you get our 1925 catalog which shows larger sizes up to 1000 eggs. (3)

WISCONSIN INCUBATOR CO. Dept. 114 Racine, Wis.

\$13.95 Champion \$21.95
Belle City 230 Eggs

140 Egg Incubator \$11.95; Hot Water, Copper Tank, Self-Regulated. \$5.95 buys 60 Chickens \$7.95 140 Chickens \$9.95 230 Chickens \$11.95. Hot water Brooder. Save \$1.95; Order both 140 Size Incubator and Brooder, \$19.95 230 Size Incubator and Brooder, \$29.95 60 Size Incubator and Brooder, \$15.95

Express Prepaid
E. of Rockies and allowed West. Low Prices on Coast and Oil Canopy Brooders. Guaranteed. Order Now. Share in my Special Offers, or write for Free book "Hatching Facts" Jim Rohan, Free.

Belle City Incubator Co. Box 14 Racine, Wis.

140 EGG Incubator

Freight Prepaid \$13.85

Shipped complete, set up, ready to run. Freight paid East of Rockies.

(2) built to last for years; deep chicken nursery, hot water heat, copper tanks, double walls, air space between, Redwood, covered with galvanized iron, double glass doors.

140 EGG INCUBATOR WITH BROODER \$18.25
260 EGG INCUBATOR, ALONE, ONLY. 23.50
260 EGG INCUBATOR, WITH BROODER 30.75
30 days' trial—money back if not O. K.—FREE Catalog Ironclad Incubator Co., Box 83 Racine, Wis.

Detroit-Alliance INCUBATOR 140 - EGG CAPACITY

Has all the features that insure big hatches—double walls, copper tank, complete nursery, perfect heat control through automatic trip burner, "Tycos" thermometer held so chicks can't break it when hatching. Detroit Brooders, too. Write for low combination price today!

Detroit-Alliance Incubator Co., Alliance, Ohio
Dept. 11

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

GEO. H. LEE CO., Dept. 107 Omaha, Neb.

White Diarrhea

Remarkable Experience of Mrs.
C. M. Bradshaw in Prevent-
ing White Diarrhea

The following letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Bradshaw tell of her experience in her own words:

"Gentlemen: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 507, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa.

Cause of White Diarrhea

White Diarrhea is caused by the *Bacillus Bacterium Pullorum*. This germ is transmitted to the baby chick through the yolk of the newly hatched egg. Readers are warned to beware of White Diarrhea. Don't wait until it kills half your chicks. Take the "stitch in time that saves nine." Remember, there is scarcely a hatch without some infected chicks. Don't let these few infect your entire flock. Prevent it. Give Walko in all drinking water for the first two weeks and you won't lose one chick where you lost hundreds before. These letters prove it:

Never Lost a Single Chick

Mrs. L. L. Tam, Burnetts Creek, Ind., writes: "I have lost my share of chicks from White Diarrhea. Finally I sent for two packages of Walko. I raised over 500 chicks and I never lost a single chick from White Diarrhea. Walko not only prevents White Diarrhea, but it gives the chicks strength and vigor; they develop quicker and feather earlier."

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shenandoah, Iowa, writes: "My first incubator chicks, when but a few days old, began to die by the dozens with White Diarrhea. I tried different remedies and was about discouraged with the chicken business. Finally, I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko White Diarrhea Remedy. It's just the only thing for this terrible disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk.

We will send WALKO White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of WALKO (or \$1.00 for extra large box)—give it in all drinking water and watch results. You'll find you won't lose one chick where you lost dozens before. It's a positive fact. You run no risk. We guarantee to refund your money promptly if you don't find it the greatest little chick saver you ever used. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of our guarantee.

WALKER REMEDY CO., Dept. 507,
Waterloo, Iowa.

Send me the () 50c regular size (or () \$1 economical large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to promptly refund my money if not satisfied in every way. I am enclosing 50c (or \$1.00). (P. O. money order, check or currency acceptable).

Name

Town

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

Mark (X) in square indicating size package wanted. Large package contains about two and one-third times as much as small.

floor. A layer of asphalt one-sixteenth of an inch thick over the concrete makes the floor as smooth as glass.

Home-made mash hoppers are the cheapest. The throat of a hopper should be at least four inches wide to prevent clogging. The uncovered mash hopper becomes contaminated with droppings. Uncovered fountains may also become contaminated. Place the pail near the wall and build a roof over it to keep the birds from dropping manure into the water. If you use commercial sanitary fountains, use the kind that can be opened and scrubbed.

The material for a poultry house depends on the amount of money you can spend. Shiplap covered with a good grade of roofing paper makes an economical and satisfactory house. Where the strips of roofing paper lap, they are held on with strips painted white. This holds the paper securely and adds to the attractive appearance of the house.

Lining the roof out beyond the dropping boards helps to keep moisture from condensing above the roosts. Rear windows increase the summer ventilation. If you expect to trapnest, build the nests in batteries on the walls of the house as it is easier to remove hens than from low nests under the dropping boards.

In long houses a door every forty feet in the front of the house or a litter carrier helps in removing the litter and droppings. When wallboard is used for inside lining it should be painted with creosote to keep the hens from eating it.

RABBITS EAT YOUNG.

Can you tell me why my Flemish Giant rabbits eat their young? I feed corn, oats, wheat, apples and cabbage. They are well housed and cared for, and are real fat.—B. B.

According to Gibson, an authority on rabbits, the does sometimes eat their young because they have been heavily fed and are filled internally with layers of fat. This fat causes a great deal of heat and trouble at time of kindling, and gives the doe the unnatural feeling which causes the destroying of the young.

The remedy is to keep the does in just fair weight and breed them again. Feed bread and milk a few days before time for kindling, and continue this every day in the ration until the young rabbits are weaned. Many rabbit breeders are not located where they can keep a cow, which is unfortunate as fresh milk is a great help in keeping the does in condition and the young rabbits growing fine.

POULTRY HOUSE CAPACITY.

I have a hen house eight feet high on one side and five feet high on the other side, twenty feet long and twelve feet wide. How many hens will a building that size house?—J. K.

A house twenty feet long and twelve feet wide will contain 240 square feet of floor space. As a general rule, hens of the heavy breeds require four square feet per bird. In small houses it is better to use four square feet per bird for any breed, so I think your house is about right for sixty hens.

POULTRY PARAGRAPHS.

Dr. H. J. Stafseth, of the bacteriology department at M. A. C., has been granted a year's leave of absence to study and teach in Europe. Dr. Stafseth is one of the best authorities on poultry diseases in the country. So when the Hungarian Foundation wanted a man to instruct in poultry diseases in Hungary, Dr. Stafseth drew the assignment.

The poultry department of the college has 135 demonstration farms throughout the state. The records from these farms show that the cost of feeding a hen one month was thirteen cents.

GRANDVIEW CHICKS

For Success

I laid 285 eggs in the Michigan International Egg Laying Contest and hold the highest official record over all breeds in Michigan. My profit in one year was \$7.00 above feed cost. Several thousand baby nieces of mine want a home with you and promise to follow my good example for industry and profit.



Good Seed Is a Safe Investment

Grandview Poultry Farm Baby Chicks represent the HIGHEST SEED of EGG PRODUCTION. Let our stock demonstrate and convince you that breeding determines your profits.

Let our SERVICE DEPARTMENT, under the direction of PROF. E. C. FOREMAN, shorten your road to success and help you avoid the many unpleasant little detours.

Get our FREE ILLUSTRATED CATALOG. A SERVICE GUIDE, brimful of information, free to all customers—a poultry course without any expense attached.

DEVRIES GRANDVIEW POULTRY FARM,
Zeeland, Mich.

CHAR COAL

COARSE--MEDIUM--FINE

From best hard woods. In 50-lb. paper lined burlap bag. Glad to send samples and prices. Nothing better for chicks.

UNITED FUEL & SUPPLY CO.

Free Press Bldg., Detroit, Mich.

CHICKS

FROM REAL BARRON
Single Comb
White Leghorns
START RIGHT

Your future success depends on your foundation start. Start with OTTAWA stock, chicks, or eggs. Then you will have layers that will give you the largest production. Write for your copy of our valuable catalog and price list.

Ottawa Hatchery & Poultry Farm,
R. 10, HOLLAND, MICH.



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

5% Discount

On all prepaid orders placed 30 days before shipment.

100% Live Delivery Guaranteed. Catalog Free.

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



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

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

LAYING LECHORNS
BLACK--BROWN--BUFF--WHITE
ANCONAS AND MINORCAS

Plymouth Rocks, Barred, Buff, White, Rhode Island Reds, R. C. and S. C. Silver-laced Wyandottes and White LIGHT BRAHMAS and JERSEY GIANTS.

Write for Prices

CRESCENT EGG COMPANY, ALLEGAN, MICHIGAN
Egg Cases, Fillers, Cartons—Everything required for packing eggs properly; and Jamesway Equipment for Poultry Houses and Dairy Barns



Barron White Leghorns
Anconas
White Wyandottes

Fancy Stock at Right Prices

White Leghorns (270-300 ancestry).....\$13.50 per 100
Sheppard Anconas (300-egg strain)..... 13.50 per 100
White Wyandottes (Evergreen strain)..... 18.00 per 100
Odds and ends, broilers..... 10.00 per 100
Shipped by parcel post. Safe arrival guaranteed.
RELIABLE POULTRY FARM AND HATCHERY,
Zeeland, Mich., R. 1, Box 47.



OUT IN FRONT AT CONTEST

The Royal White Leghorn pen at the International Egg Laying contest of 1925 led the entire contest for the first two weeks and after being second in the Leghorn class for ten weeks, again took the Leghorn leadership on Jan. 30, and still held it March 1st. High breeding counts. Write for our catalog.

S. P. Wiersma, R. 2, Zee 'and, Mich.



CHICKS WITH PEP

Ohio Accredited. Every bird passed by inspector trained and authorized by the Poultry Department Ohio State University. Prize winners at many shows from National down. Developed for high egg production for many years. Free range flocks in best of health. \$100% live delivery. Thirteen breeds. Catalog free. Prices low, quality considered.
Helgate Chick Hatchery, Box BM, Helgate, Ohio



White Leghorns headed by males direct from Eckart; last year's M.A.C. International Egg Contest winners. Also leading strain Anconas, Rocks, S.C. Reds. Cullied by experts. Modern hatching methods. Guarantee 100% vigorous delivery. Free Catalog. Michigan Hatchery, Box 1, Holland, Mich.



Profit Makers—Early Layers
Leghorns, Anconas, Rocks, Reds, Wyandottes, Orpingtons, Minorcas. Lowest prices. Catalog Free. Address nearest office.
D. T. FARROW CHICKERIES
Peoria, Ill., Des Moines, Ia., Milwaukee, Wis., Indianapolis, Ind.



CHICKS That Satisfy

Big, husky chicks, from heavy layers, S. C. Eng. White and Brown Leghorns, 12c; Anconas, 13c; Barred Rocks and R. I. Reds, 15c; Assorted chicks, 10c; Class A chicks only. No money down. Pay full amount ten days before chicks are shipped. 100% live delivery. Postage paid. Catalog free.
THE BOS HATCHERY, R. 2-M, Zeeland, Mich.

BABY CHICKS FROM OUR S. C. WHITE LEGHORNS

Every bird in our flock is trapnested every day in the year. If you want to secure Baby Chicks at a reasonable price from high record stock, do not fail to send for our catalogue. **STRICT POULTRY FARM,** R. 4, Box M, Hudsonville, Mich.



English Type WHITE LEGHORNS

The Big, Deep Bodied Hens with the Large Combs, That Produce the Large White Eggs.

The chicks we offer you this year are from extra selected hens, sired by males out of hens that laid 270 eggs in 305 days these males being sired by a male from a 300-egg hen. The price asked for them is very reasonable. They will bring you bigger profits and absolute satisfaction.

You will be benefited by our 15 years experience hatching and shipping chicks. Our stock grows up uniform in size, has great vitality and brings big returns in our customers' hands. Let us mail you our catalog with prices. 100% live arrival guaranteed.

NINE WEEKS OLD PULLETS IN MAY.

WOLVERINE HATCHERY

H. P. WIEREMA, Prop. R.R. 2, Box 97 Zeeland, Mich.

1,000,000 Babion's Quality Chicks



FOR 1925. Breeders of highest egg producing strains in all leading varieties. You will be greatly pleased with results obtained from our heavy layers.

100% Live Delivery Guaranteed. Postpaid prices	25	50	100	500	1000
English White Leghorns	\$3.75	\$7.00	\$13	\$62	\$120
Single & Rose C. Brown Leghorns	3.75	7.00	13	62	120
S. C. Buff & Black Leghorns	4.25	8.00	15	72	140
Barred Rocks, Anconas	4.25	8.00	15	72	140
S. C. & R. C. R. I. Reds	4.25	8.00	15	72	140
White and Buff Rocks	4.50	8.75	17	82	160
White Wyandottes, Black Minorcas	4.50	8.75	17	82	160
Buff and White Orpingtons	5.00	9.50	19	92	180
Sl. Wyandottes, Lt. Brahmas, Langshans	5.00	9.50	19	92	180

15 other rare varieties. Mixed, all Heavies, \$12 per 100. All Light, \$10 per 100. Light and Heavy Mixed, \$11 per 100. DUCKLINGS, Pekins, 25, \$7.50; 50, \$15; 100, \$30. White and Fawn Runners, 25, \$6.50; 50, \$13; 100, \$25. Remember quality goes ahead of price. Consider this when you place your order and please note we guarantee 100% Live Delivery and Chicks that will please you. No Chicks shipped C. O. D. At least 10% of purchase price must come with order. Bank Reference. You cannot go wrong in ordering direct from this ad. Chicks from EXTRA SELECT FLOCKS, \$3 per 100 higher than above prices, and Chicks from our Blue Ribbon Pens, \$5 per 100 higher. Write at once today.

BABION'S FRUIT & POULTRY FARM,

FLINT, MICH

P-U-R-E B-R-E-D C-H-I-C-K-S



From carefully selected, bred-to-lay, high producing strains in the following leading varieties: (S. C. WHITE AND BROWN LEGHORNS, ANCONAS, BLACK MINORCAS, BARRED ROCKS).

We have been in the business many years and our experience enables us to produce Chicks for you that will prove entirely satisfactory to you, just as they have proven year after year with our thousands of old customers.

We guarantee High Quality and 100% Safe Arrival Postpaid. We also guarantee

100 PER CENT ARRIVAL IN GOOD HEALTH

Catalog giving full particulars and quoting our low prices in detail mailed free on request.

American Chick Farm, Box 115-D Zeeland, Mich.



Pure-Bred Big Value BABY CHICKS

OHIO ACCREDITED, DELIVERY GUARANTEED. Order direct from this ad today and get chicks which have the authority of Ohio State University behind them. Our breeding stock is inspected and banded by experts trained and authorized by them.

Prices (Postpaid) On:	25	50	100	500	1000
S. C. Wh. Br. & Buff Leghorns	\$3.25	\$6.50	\$13	\$60	\$118
S. C. Mottled Anconas	3.50	7.00	14	65	128
S. C. Blk. Minor. Bd. Rocks, S. C. R. I. Reds	3.75	7.50	15	72	138
Wh. Rocks, Wh. Wyandottes, R. C. R. I. Reds	4.00	8.00	16	77	144
S. C. Buff & White Orpingtons	4.25	8.50	17	83	160
Jersey Black Giants	7.50	15.00	30
Odds & Ends (not shipped under accredited label)	2.50	5.00	10	50	100

Free from European fowl pest. Order today with Check or Money Order. Catalog free. SPECIAL QUALITY CHICKS. We can furnish also chicks of especially high breeding. Write for particulars and prices. **WOLF HATCHING & BREEDING COMPANY, BOX 4, GIBSONBURG, OHIO.**

WASHTENAW Baby Chicks

Chicks that are lively and healthy from pure-bred carefully selected stock. One-fifth down books order. Good poultry judges say our flocks are unusually good. Order today. Last year we were not able to supply the demand. Order early this year. Pure-bred, carefully selected, 100% live delivery.

Prices on (prepaid)	25	50	100	500	1000
Bd. Rocks	\$4.25	\$8.00	\$15.00	\$72.00	\$140
R. I. Reds	4.25	8.00	15.00	72.00	140
Wh. Rocks	4.50	8.50	16.00	77.00	150
Wh. Wyandottes	4.50	8.50	16.00	77.00	150
Wh. & Br. Leghorns	3.75	7.00	13.00	62.00	120

Ref.: Farmer's & Mechanic's Bank, this city.

WASHTENAW HATCHERY,
Geddes Road
Ann Arbor, Michigan

OUR MODERN CHICKS



Are hatched from select, pure-bred, heavy laying flocks that have been inspected and culled by experts holding Ohio State University Certificates. OLD CUSTOMERS TAKE 65% OFF OUR OUTLET EACH YEAR. 100% Live Arrival Guaranteed. Bank Reference.

Varieties. Post paid prices on	50	100	500	1000
S. C. White, Brown & Buff Leghorns	\$7.00	\$13.00	\$62.50	\$120
Barred & White Rocks, S. C. & R. C. Reds, Anconas	8.00	15.00	72.50	140
White Wyandottes, Buff Orpingtons	8.50	16.00	77.50	...
Silver Wyandottes	9.50	18.00	87.50	170
Mixed, \$12 per 100 straight. Order right from this ad. Free Circular.				

Member I. B. C. A. and Ohio Association. **MODERN HATCHERY, Box 44, Mt. BLANCHARD, OHIO.**



DILIGENT CHICKS DID IT

Postpaid prices on	50	100	500
Single Comb White Leghorns	\$6.25	\$12.00	\$57.50
Barrel Plymouth Rocks	7.75	15.00	72.50
S. C. Mottled Anconas	6.75	13.00	62.50
Mixed Chicks	4.75	9.00	42.50

Low in price, high in quality. Order right from this ad, or send for our catalog. If close in call on us, we are located on the M-11 cement road, 2 Miles north of Holland. We have pullets for sale after May first.

DILIGENT HATCHERY, Holland, Mich. Harm J. Knoll, Owner.

Homer Hatchery Chicks

From healthy free range flocks culled and mated with cockerels purchased direct from breeders who have a reputation for high egg production and color, assuring you strong healthy chicks that grow into money making flocks. Shipped Parcel Post prepaid; 100% live delivery guaranteed. A trial order will convince you. Write for catalogue and prices.

HOMER HATCHERY, HOMER, MICH.

HIGH-GRADE CHICKS

Produced from splendid flocks of the best strains. Bred-to-lay and carefully inspected and selected.	50	100	500	1000
100% Live Delivery Guaranteed. Postpaid prices on				
White and Brown Leghorns, Anconas	\$7.00	\$13.00	\$62.00	\$120
Barred Rocks, R. I. Reds	8.00	15.00	72.00	140
White Rocks & Wyandottes, Black Minorcas	8.50	16.00	77.00	150
White & Buff Orpingtons, Buff Wyandottes	9.00	17.00	82.00	160
Mixed Chicks, 100, \$12. 25% deposit books your order for future delivery. Reference:				
First State and Savings Bank.				

THE HOWELL HATCHERY,

DEPT. 57,

HOWELL, MICHIGAN.



An Object to Work Toward

The M. C. Fund to Be Put into Use

By Uncle Frank

At last we have an objective for the Merry Circle Fund. I wanted to get something that would bring happiness to the greatest number of unfortunate children possible, and to make the use of the Merry Circle money bring pleasure for a long time. I believe that I have found the way.

Some time ago I wrote to the State Health Department and they suggested that I get in touch with the State Sanatorium for Tuberculosis at Howell. So I took a day off a short time ago to pay the place a visit.

I told Dr. Toan, in charge of the place, the purpose of my visit and he was delighted with the thought that the farm boys and girls throughout the state could and would do some-

were restless because of the enforced rest that the cure of tuberculosis requires. Rest, the doctor said, is the chief requirement in curing the disease, and when these boys and girls gain the vitality necessary to fight the trouble, they want to be active.

Dr. Toan and I talked over the situation and we both thought it would give the young folks great pleasure if they could be entertained by radio. It would help to divert their minds and to make their enforced rests easier to take.

So, in behalf of the Merry Circle Fund I promised a radio for each cottage. This would give pleasure to those who will come for a long time in the future. Each radio will have a little plate on it indicating that it was presented by our Merry Circle. It seems to me that it would be a very worthy, and almost permanent investment for the Merry Circle in good cheer for the unfortunate.

To properly equip these two cottages with suitable radios, loud speakers, etc., we need about two hundred dollars more than we now have.

I know that the raising of this money will be no great task to the thousands of boys and girls of the Merry Circle who want to bring good cheer to others. I feel sure that you will want to use this as an opportunity to fulfill that part of the Merry Circle creed which refers to the spreading of happiness. This will give us a real practical opportunity to demonstrate our unselfishness, our regard for others, our Christian spirit. Our nickels, dimes, quarters or dollars will be as bricks to the monument which the Merry Circle will build for ourselves through the spirit of unselfishness we show.

Would it not bring happiness quicker, and would it not be a greater credit to us if we could reach our objective in a short time. Let's see what we can do. Your share in this joy-giving task should be sent to the Merry Circle Fund, Michigan Farmer, Detroit, Michigan.

Our Letter Box

Dear Uncle Frank:

I have read Marcia Rowe's letter. I do not think it is very nice for a boy to smoke. But for me I would rather see a boy smoke cigarettes than chew tobacco. This would be another good suggestion for you. "Would you rather see a boy chew tobacco than smoke cigarettes?"

Mr. W. B. will surely choke if he gets this letter. I will close.—Your niece, Alta Thomas, Clarksville, Mich.

I think I'll take part in this discussion. I don't like either smoking or chewing. There is no excuse for either; they're just habits that do no one any good. But let's hear from others.

Dear Uncle Frank:

My burning ambition is to be a teacher, but as "A Silent Reader (here-tofore)," has expressed my feelings much better than I can on the subject, I won't take up more of your time than is necessary.

What I am really writing about is the Merry Circle Fund. As Uncle Frank said, "We have to build the foundation first, and as in the building of anything, the foundation is a necessary but unnoticeable part of the work." How long would it take us to lay the foundation as there are now somewhere around 15,000 members? Someone suggested, "Why not have a Denial Week?" I think it is a very good plan. I know there are many who have already sent in donations, so this does not necessarily include

Frank is Confined to Bed Now, But He Still Has His Smile.

thing for the seventy-two boys and girls who were militantly fighting the dreaded T. B. disease.

He took me over to Columbia Cottage where thirty-five girls are under treatment. There we saw quite a few girls in their beds on the open air porch, clothed to protect themselves from the cold, and amusing themselves as well as they could under the circumstances. Over at Pershing cottage, thirty-seven boys are under similar treatment and many of them were also in bed finding amusement as well as they could.

Many of the children were crippled with tuberculosis of the joints, with their limbs in casts. Especially interesting was Frank, whose picture is shown here. He is now confined to bed entirely with tuberculosis of the hip. When we went to see him, he was getting private lessons, because he can not attend the sanatorium school. He has been there two years, but still the smile of courage and inward cheer was even greater than that shown in the picture.

Rudolph kindly took us from Pershing cottage to the school room. On the way we spoke of the pleasant surroundings. He said, "Yes, it is nice, but I'd rather be home." Rudolph, we learned later, was the youngest of a large family and he was the only one in it who could speak English—and he spoke it very well.

I believe Rudolph spoke the sentiments of most of the boys and girls there. They wanted to be home and



\$502 Net Profit In 3 Months From 250 B.F. White Leghorn Pullets

That's what Mr. I. Wade of Fennville, Mich. made in three months time from pullets raised from chicks he bought of us last spring. You can make big money with our profit making chicks.

CHICKS - - - CHICKS

Our stock is strong, healthy, free range, Tancred and Tom Barron White Leghorns—S. C. Rhode Island Reds—Parks' Barred Rocks—the best blood lines in the country. 100% live delivery guaranteed, postpaid. Big, fine catalog free.

8 to 10 Weeks-Old Pullets

We specialize in 8 to 10 weeks-old pullets. Extra choice ones at prices that please. Write today.

Brummer-Frederickson Poultry Farm
Box 20 Holland, Mich.

First Choice White Leghorn CHICKS

Pure Hollywood Strain, 200-290-egg pedigree. These hens mated to males from 283-290-egg dams. Leghorn foundation stock direct from Hollywood Farms. We also offer our own Hollywood Mated Barred strain, and Anconas bred from Sheppard's stock. Large illustrated catalog free. The RURAL POULTRY FARM, R. 1, Box 109, Zeeland, Mich.



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

Bred for eggs, not for show feathers. Every chick from our farm is of a proven egg-laying strain. ORDER FROM THESE PRICES.

	50	100	500	1000
Barron Leghorns (Pedigreed Males)	\$3.50	\$16	\$75	\$145
Barred Rocks (Aristocrat Strain)	9.50	18	85	165
Br. Leghorns	8.50	18	75	145
GRADE A.				
White Leghorns	\$7.00	\$13	\$62	\$120
Barred Rocks	8.00	15	72	140
Br. Leghorns	7.00	13	62	120
Broilers, Heavy	\$12 per 100	Mixed	\$9.00 per 100.	
100% Live Delivery. Catalog Free.				

Order Pullets Now, for May 15 Delivery.

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

PURE BRED CHICKS

250 to 280 Egg Strain pedigree males head our famous flocks of Tancred American and Tom Barron English White Leghorns, Sheppard's Famous Mottled Anconas, Park's Bred-to-Lay Rocks. Our birds won first prizes in egg production class at Holland and West Michigan State Fairs. All flocks bred through generations for high egg production. Prompt, 100% live delivery, prepaid, anywhere east of the Rockies. Prices low. Order early to get chicks when you want them. Our beautifully illustrated, instructive free chick booklet will give you much valuable information. Write for your copy now.

Silver Ward Hatchery, Box 29, Zeeland, Mich.

CHICKS THAT LIVE

From sturdy, healthy free-range flocks. Fluffy, lively youngsters that should grow fast, and get on an all-year-round egg laying basis. From carefully mated high-egg-producing strains, tested and culled to insure exceptional vigor and laying ability. This stock and our scientific hatchery produces chicks that live, grow fast, lay early. Selected for uniform size and color so they will grow into beautiful flocks of which you'll be proud. Place your order before our output is taken by others. Order now for present or future delivery. Leading varieties. Live delivery guaranteed. Postpaid. Write for new chick booklet. **H. L. Carl, Box 100, Montgomery, Mich.**

ONE MILLION

INSPECTED "GOOD LUCK" QUALITY CHICKS. All best most beautiful breeds, 10¢ & up. BIG BEAUTIFUL ART BOOK. Showing them in their natural colors. Check full of valuable information on raising our "GOOD LUCK" CHICKS, how to make BIG MONEY with Poultry, full prices, etc., sent free NOW. **Neuhauser Hatcheries, Box 62 Napoleon, Ohio, Bank Ref.**

SEND NO MONEY for SILVER LAKE CHICKS

Just mail your order. We ship C. O. D. and guarantee prepaid 100% live delivery of sturdy, purebred chicks from healthy, bred-to-lay flocks. Wh. Br. Leghorns, 13¢; Rd. Rocks, S. C. Reds, 14¢; Wh. Rocks, 14¢; Buff Rocks, Buff Orps., Wh. Wyand., 16¢; Mixed, 10¢; Blk. Minorcas, 15¢.

Silver Lake Egg Farm, Box M, Silver Lake, Ind.

them, but I know we are all glad to do our bit. I am including my second donation, and I hope it will help our good work along.

Good wishes to the Merry Circle. Sincerely, "Hope."

The Merry Circle Fund has been growing slowly, but it's like all building; when the foundation is done, then you begin to see it. In a short time it is going to take new life and will grow fast.

POETRY CONTEST.

IT is getting the time of the year when poets have the urge to put on paper the inspiration spring gives them. I think that a lot of our young poets have this urge in common with others, so to help to materialize the inspiring thoughts they have, we will have the next contest on spring poetry.

Any original poem by any boy or girl under eighteen years of age may be submitted to this contest. The poems should be on Spring. Preference will be shown to those not over twenty-five lines in length.

The writers of the two best poems submitted will get fountain pens as prizes; the next three best will be awarded dictionaries, and the next five handy pocket knives.

This contest closes April 3. So send your poems to Uncle Frank, Michigan Farmer, Detroit, Mich., early enough to get here in time. Put your name and address in the upper left hand corner of your paper. If you are a Merry Circler, put M. C. after your name. All who send good poems and are not M. C.'s will get buttons.

THE CONTEST WINNERS.

THIS contest brought a lot of interesting drawings, many of which showed that the Merry Circle have artistic ability as well as a sense of humor. I was glad to receive the funny drawings of myself as they gave me a chance to have a lot of good laughs.

One Merry Circler must have been able to see through me, as she drew a chart of the human body showing the heart, lungs, stomach and other organs, and submitted it as her drawing of what I looked like. I must admit that in general I believe that I am made according to the specifications submitted, but sometimes the way my anatomy works, I wonder if there isn't something missing.

Another submitted a copy of the prize winning drawing in a similar contest we had over a year ago. Of course, it did not win a prize.

The prize winners are as follows:

Fountain Pens.

Harold Coles, Montgomery, Mich.
Albert Alfredson, Whitehall, Mich.

Dictionaries.

Emma Sapatka, Wellston, Mich.
Donald Lawyer, R. 1, Ada, Mich.
Glenn Hornbaker, R. 2, Lake City, Mich.

Knives.

Reuben Johnson, R. 1, Hermansville, Mich.
Dorothy Pinnow, Farmington, Mich.
Russel Carter, Middleville, Mich.
Florence Cogan, Falmouth, Mich.
Ariel Denton, Saranac, Mich.

BENEFITS OF SCHOOL.

I go to school to get my education. In school I learn manners. I learn to do arithmetic and grammar. In geography I learn all about the earth and people, how they work and live. If I would not go to school I would not know how to do arithmetic, grammar or geography, and I would not be able to read, nor to spell words if I wanted to write something. School is a great use for every child.

Three years ago I came from Switzerland and I notice the difference in schools. The schools in Switzerland are much better than the schools here. —Hedwig Stegmüller.

The only way a boy or girl can become a Merry Circler is by taking part in some of the contests



A Bag of ALPHA CEMENT

combined with water will bind together several cubic feet of sand and twice as much stone or gravel.

Result: handsome, permanent improvements that you will never have to replace because of rot, rust or fire. ALPHA CEMENT improvements require no paint. They save you money year by year.

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Philadelphia Boston New York Baltimore

The ALPHA Dealer
is the Cement-Service man
of your community
Call on him



Pure Bred Baby Chicks \$8.00 Per 100 and up

We are now booking orders for May and June chicks, from our high grade Anconas and White Leghorns. These chicks are from extra selected hens mated to Tancred and Sheppard males. We insure our chicks for one week. Write for our catalog and prices before you buy, we can save you money.

M. D. Wyngarden R. 4 Box 6, Zeeland, Michigan

Riverview Chicks

big fluffy, by prepaid parcels post, 100% live, and good condition guaranteed. From our Strong, Healthy, English type White Leghorns. Culled by expert from State University. We hatch all our own eggs and can save you money on that chick order. Become one of the many satisfied customers.

Gentlemen:

I am an old customer, having bought chicks from you every year for a number of years back and have always had good results from your stock, and am confident that you give everybody a square deal. The chicks that I received last year are shelling out the eggs, and have all winter since last fall. Kindly send your free mating list with prices. Yours truly, W. F. Agard, R. 1.

RIVERVIEW POULTRY FARM, Route 2, Box 94, Zeeland, Mich.

Blood-Tested Baby Chicks

Barron Strain S. C. W. Leghorns. We furnish chicks from one, two, and three-year-old tested breeders, mated with high record cockerels, chicks that will positively pay you a profit in eggs this fall and winter. Why speculate with just chicks when you can buy the best "Quality" at "Live and Let Live" prices. Get our circular before you place your order. Satisfaction and 100% live delivery positively guaranteed.

City Limits Hatchery, Rt. 5, Box 11, Holland, Michigan.

HOLLAND HATCHERY

CHICKS from heavy winter laying stock produced by MICHIGAN'S OLD RELIABLE HATCHERY. Pioneer Breeders and Hatchers, operating the best Hatchery in the State. Pure-bred TOM BARRON and AMERICAN WHITE LEGHORNS, Anconas, Barred Rocks, Rhode Island Reds. Strong, well hatched chicks from Hoganized, free range stock. By insured Parcel Post Prepaid to your door. 100% Live Delivery Guaranteed. 17 years experience in the business and giving absolute satisfaction to thousands. Get valuable illustrated Catalog free, and lowest prices before placing your order elsewhere. **VAN APPLEDOORN BROS., HOLLAND HATCHERY AND POULTRY FARM, R. 7 C, HOLLAND, MICHIGAN.**



There Must

be a reason why 75% of last year's customers have reordered this year. Our White Leghorn baby chicks are proven profit producers. Quality stock with the fancy prices. Catalog free—send for it today.

Karsten's Farm, Box 25, Zeeland, Mich.

Chicks and Hatching Eggs

from Leghorn Flock which produced first and third pens in 1924 Michigan Contest. Every male son of 240 or more egg hen. Chicks \$20, eggs \$9 per hundred. **W. C. ECKARD, Paw Paw, Mich.**

BABY CHICKS

\$12.50 Per 100 and Up

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



QUALITY CHICKS

Pure Bred Tom Barron English S. C. White Leghorns. From healthy, winter laying, free range, Hoganized flocks. Postpaid. Live Delivery guaranteed. Get our low prices before you buy. Write for prices and free catalog. **Lake Bluff Hatchery, Route No. 1, Holland, Mich.**

Additional Poultry Ads on Page 441

PROVED SWEDISH TREATMENT STOPS ABORTION

Famous foreign treatment quickly relieves badly infested herds. Gives amazing results in cases owners believed hopeless. Formula available for every farmer.

Complete freedom from the ravages of the terrible abortion plague is now assured every worried farmer through a famous Swedish treatment. For many years it has been used with complete success in the old country, banishing this disease from whole dairy sections literally rotten with abortion.



After great expense of time and money the formula was reproduced and given to farmers in this country. History repeated itself. Herd after herd was rid of this disease. Even cows considered hopeless were restored to health and produced fine, sturdy calves.

Saved Every Calf

Frank H. Halfman, Crown Point, Ind., is one of hundreds of grateful users, he says: "Two years ago for a period of three months I lost every calf in my herd of forty cows. All abortion remedies failed. I was desperate. I heard of your C. C. C. treatment, used it and have never lost a calf since. It completely stopped my abortion troubles."

For nine years the fame of this easily given treatment has spread from breeder to breeder. Today it is distributed on an absolute binding guarantee that it will stop every case of abortion; that every cow treated will deliver a normal calf or the treatment cost is refunded. Such a broad guarantee is possible only because C. C. C. is practically 100% successful.

Send No Money

Mr. John W. Froberg, who is a native of Sweden and is responsible for introducing this treatment in the U. S. A. will gladly send every farmer troubled with abortion full information about it. Don't send any money—just your name and address to Froberg Remedy Co., 13 Lincoln St., Valparaiso, Ind. Full details will be mailed you without any obligation. Read the wonderful true story of C. C. C. You will be surprised how easy it is to treat your herd, how little it costs, how quickly you get results.



Send No Money 30 Days' FREE TRIAL—10 MONTHS TO PAY

No deposits—No notes to sign—No obligation to buy! You use the imported Harp Separator 30 days absolutely FREE. Fully guaranteed. Europe's standard for more than 22 years. If you don't find it the closest skimming, easiest turning, quickest to clean separator on the market, send it back and the trial will have cost you nothing. Sizes to fit every need from 225 lbs. to 1000 lbs. capacity. Easy terms as low as \$3.75 a month. Write for Free Folder. Get Bargain Prices. THE HARP SEPARATOR CO. Dept. 3108 115 So. Dearborn, Chicago

PATENTS

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

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built and guaranteed by the oldest American manufacturer making cream separators only. Proved the most profitable by experience of many thousands of enthusiastic owners. Skims thoroughly. Unmatched for easy turning. Easily cleaned. Flushes completely—saves cream. Made in capacities from 850 pounds down to one-cow size.

Allowance Made on Old Separators of Any Make.

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American Separator Co. Box 24E Bainbridge, N.Y.



DAIRY FARMING

From City Lot to Dairyman

By Art Lousdorf

NINE years ago, Ben Spencer, city born and city raised, became interested in dairy cows. At that time he started with two heifers. Today, he is one of the leading pure-bred breeders of the Upper Peninsula. One year, or to be exact, thirteen months ago, he owned about fifteen scrubs or so-called native cows—today he has twenty-one pure-bred registered Holstein cows, eight heifers and three bulls, a total of thirty-two head.

It Is An Interesting Bit of History.

It all happened like this: In 1915 when Mr. and Mrs. Spencer became the happy parents of a bouncing baby boy, Grandpa Spencer modestly suggested that in order to give this boy an equal chance with other children, he must have lots of clean, fresh milk. But the Spencers had lived in the city all their lives and knew little about cows. The dairy industry of Iron Mountain had not been developed very extensively at that time and it was difficult to get ideal milk for babies. So there was only one thing to do—to keep their own cow.

Two promising young native heifers were purchased. Soon after they both became fresh and the milk began to flow. To their surprise the baby could not drink all the milk that these two cows produced. Even after the whole Spencer family were replenished, there was still milk left over.

Their neighbors became attracted by these handsome heifers and begged that they be allowed a supply of this extra milk. It was arranged, and before long there were quite a list of neighbor patrons. They were establishing a big commercial dairy business but didn't know it. The patrons were satisfied, the dairy prospered, soon they had more patrons than milk to supply. Mr. Spencer went out to buy another cow—that meant more milk, but it also meant more patrons. The little dairy continued to prosper until the herd consisted of six dairy cows. There it halted. It was a farm in the city and farms in cities are impractical as well as unpopular. As the cows promenaded, the neighbors grumbled, the Spencers saw it all.

One morning they learned that there was a little forty-acre farm for rent near town. It would make an ideal place for their dairy; spacious meadows for their cows to graze in; cosy gardens for their baby to play in—they moved.

Worked Ten Hour Shifts and Milked Six Cows.

To own six cows was a fine start for a city man, but not enough income to make a good living. Fortunately this new farm was near a big lumber mill. Ben was of a restless disposition, the six cows didn't make enough money nor enough work, so he attached himself to a ten-hour shift handling logs and lumber at the saw mill.

Now his day was complete. He labored ten hours at the mill, walked back and forth, milked six cows, fed, watered them, delivered the milk. During his spare time he read farm papers, which made him even more ambitious.

Fireworks Started.

October, 1922, he joined the Dickinson County Cow Testing Association. He helped the county agent organize the association and as a reward they made him secretary without pay. Up to this time he owned fifteen native cows. His milk business was still prospering and growing. He needed more milk. The tester told him where

he could buy some pure-breds at a bargain. Mr. Spencer bought four head. The first time the cow tester came around, Mr. Spencer learned that two of these cows milked sixty-five pounds a day, as much as five of his natives. At first that astonished him, later it led him thinking. After that when he needed more milk, he bought pure-breds. He made arrangements with the bank and paid for these cows on the installment plan from the earnings of his milk checks.

1923 was a good year again. His business almost doubled and as he needed more milk, once more he bought more pure-breds, until thirteen months later, November, 1923, he owned twenty-one pure-bred cows, eight heifers, a herd bull and two bull calves. All in all, thirty-two head. The herd bull he purchased was nine years old. He wanted a proven bull so he had to buy an aged bull who had already several good milking heifers.

Herd Worth \$4,000.

The value of Mr. Spencer's herd is estimated at \$4,000. If he should sell his herd today that is what he might realize. If he had not made this change from scrubs to pure-breds his herd would only be worth about \$1,000. Calves from these grade cows were worth little or nothing, especially the male calves. Now his pure-bred male calves are worth \$30 up, and his heifer calves \$60.

Grades vs. Pure-breds.

Berg, the official cow tester, shows some surprising results as a comparison between the grades and pure-breds. While there are always some farmers who believe pure-breds show up much better than the grades, although the pure-breds were at a big handicap during the year in so much that they all had to undergo the change in management and feed.

By taking eight of the best pure-breds and eight of the best grades from the herd and comparing their records, it shows that the pure-bred did much better.

Average production per cow based on whole year:

	Lbs. Milk.	Lbs. Butter-Fat.
Eight pure-breds ...	10,028	411
Eight grades	5,954	287

The best pure-breds produced in nine months 14,184 pounds of milk and 575 pounds of butter. The best grade in the herd produced 8,172 pounds of milk and 405 pounds of butter.

Spencer was one of these men that had the courage to go ahead and undertake big things. Many dairymen have the same opportunities but not the courage to make the investment. It is Spencer's ambition to own and milk one hundred cows.

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MORE acres are devoted to pasture in the United States than to all other crops combined. The pasture land, then, is the biggest part of our farm in area; and the question arises, are we keeping account of its earnings?

On the average farm the pasture represents the rough land, if there is such, which is poorly adapted for cultivation. It may be the hills, but again it may be some of the very best land we have.

Few farmers keep accounts with their different fields and crops, and even those who do rarely include pas-

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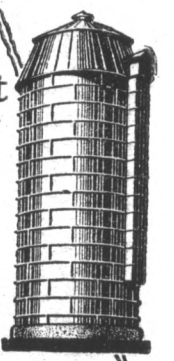
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35 Elm St., Quincy, Ill.



Get the Facts About This Better SILO

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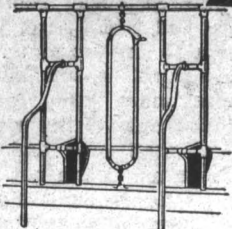
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has many new features. It is of the permanent type, but you can add capacity at any time it is needed. The doors are continuous, and they are all the same size. The chute is rigid, extremely well built. Once erected, this silo requires no expense or labor for upkeep.

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United Engine Co., Lansing, Michigan

ture as a crop. Pasture is often looked upon as a necessary evil and is grudgingly given a plot of land. No doubt if its true record were known it would be give still less area, for the fact is that pasture is inclined to be our poorest crop. Blue grass is our common pasture plant and makes up the great bulk of our pasture land. It has a habit of growing and producing liberally when there is plenty of rain and the sun is not too hot. But, unfortunately it is short lived, being generally productive in May and June and some years in September. In much of our crop producing country we do not have over three months of good grazing on blue grass, and it is extremely difficult to get interest and taxes from even \$100 an acre land devoted to pasture.

The silo is the best known substitute for pasture, and where land is valued at more than \$100 per acre, very few acres should be devoted to pasture, for this same land put into good corn and that put in the silo would produce six to seven times more feed than if it is left in pasture. From my experience I would prefer a silo in summer to one in winter if I could have but one, but a winter and summer silo makes on the average stock farm by far the most economic feeding arrangement.—A. L. Haecker.

KALAMAZOO COUNTY HOLSTEIN BREEDERS MEET.

THE annual meeting of the Kalamazoo County Holstein Breeders' Association was held March 11 at Oshkosh. The main interest of the gathering centered around a discussion of how to improve the usual strong showing of Holsteins at the county fair. Among the points raised was that the fair board be requested to add a division for cows of each breed with cow testing association records—breeds to be judged separately, but pure-breds and grades of each breed to compete in the same class. To be eligible for entry in the Michigan Record Performance—280 pounds of fat as a two-year-old, to 400 pounds as a full aged cow. Two prizes to be offered in each class.

Calf club work and area testing for tuberculosis eradication came up for discussion. The breeders decided to hold a tour next July or August, accepting the invitation of Mr. Yager to picnic on the State Hospital grounds.

Dues in the association were reduced to \$1.00 per year. R. L. Olds, county agent, and Phil Sexton, secretary of the Kalamazoo County Farm Bureau, were present and helped in discussions. J. G. Hays, secretary of the Michigan Holstein-Friesian Association, made a short talk pointing out a few things that the breeders could do to help the Holstein breed in their county.

Meeting adjourned to meet late this month with Mr. Yager to elect officers, the present president W. E. Balch, and present secretary, Roy Buckham, holding over.

SHIAWASSEE COUNTY HOLSTEIN ASSOCIATION.

A BANQUET on Thursday evening, March 12, at the Hotel Wildermuth, Owosso, ushered in the annual meeting of the Shiawassee County Holstein Association. Some forty banqueters enjoyed the following program:

The business session following the banquet revealed the finances of the association to be in good shape, over \$100 being on hand. As a good share of this fund accrued from the county sales manager system of selling surplus stock of the members, it was decided to continue the system with the former manager, Fred Martin, of Owosso, in charge.

Officers elected included C. S. Baldwin, of Bennington, president; Mrs. Burt Nowlin, of Laingsburg, re-elected as secretary-treasurer; J. Fred Smith, of Byron, vice-president. The four directors elected were Charles Paine, of Durand; Fred Martin, of Owosso; Jay Bowlby, of Ovid, and Dan Dutcher, of Owosso.

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STAR Automatic Water Bowls keep your cows supplied with clean water at all times. And with plenty of water cows feel better and give more milk.

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You don't need more cows to get more milk; the cows you have now can give you a surprising increase if you install STAR Barn Equipment. A cow gives just as much milk as her condition enables her to manufacture—if you improve her condition you increase her yield. Find out why STAR Equipment will give the greatest comfort and results. [Send Coupon for full details Today]

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Double Coated Asphaltum Base An extra coat of tough black asphaltum extends well above the ground line, shutting out moisture, giving double protection where it is needed most. It actually adds years of life to the post and the fence. Exclusive feature.

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Four sizes: A gasoline engine, developing 3 h.p. or more, will operate the R-10 size. Any tractor can be used with the N-13 and L-16. For heavy tractors use a K-19 Papec, its capacity is practically unlimited. Prices low for quality.

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HANDLING CHILLED LAMBS.

NOT infrequently despite good management of the flock at lambing time a mishap occurs and a lamb gets chilled, possibly due to some ewe lambing a day or two before expected, or a sudden change of weather following a few warm days which catch the flock unprotected. I know from experience in handling early lambs that the flock master must keep himself in readiness to meet any emergency, for unexpected things will occur and chilled lamb is no exception when lambs are dropped during the changeable weather of the late winter and early spring.

Foresightedness to prevent lambs getting chilled is far preferable to any kind of treatment and cure. Chilled lambs are very difficult to restore to normal life. The chilling has had a tendency to disturb the entire body organization and the patient being so young and undeveloped to respond to any form of medical treatment makes such cases very difficult to handle. My experience has been that every precaution should be exercised to prevent an accident rather than undertake the tedious task of restoring a well-nigh hopeless victim to life.

Lambs that are not too badly chilled may be restored by laying them in a box or basket with warm bricks in the bottom, and packing the patient with hot water bottles. The artificial heat in a little while will assist in restoring life and the lamb may be returned to its mother to nurse, but should be closely watched to avoid again getting chilled. Lambs that have become cold, yet possess a spark of life may be revived by the warm water treatment. Put the lamb in a large pail or tub partially filled with as warm water as the hand can endure. Submerge the lamb, holding the head above the water. Add more warm water to keep the temperature up. When life is restored remove the patient and thoroughly dry him. Feed him nothing but his mother's milk.—Leo C. Reynolds.

HANDLING THE WOOL CROP.

YEARS ago when I did my own shearing, I used a platform made of matched material. But, during more recent times, we have employed a person with a shearing machine, and the work is done on the barn floor. The floor is thoroughly swept before we start to shear, and then reswept after each fleece has been removed.

The price you get for wool is going to depend upon the way the fleece is handled after it is taken from the sheep. The edges should be folded over properly and the fleece laid upon the wool-box. The fleece should then be folded toward the center in an orderly way, the sides of the box lifted, and the twine tied neatly. Do not use binder twine. Wool twine is necessary. Do not try to tie the fleece without a wool-box. Some sheepmen use pegs, but the fleece never looks as it does when tied in a box.

If the wool crop is going to be held any length of time before marketing, it should be carefully packed to avoid shrinking. Wool dries out from exposure and loses weight as well as in market value.—L. R.

VALUE OF BEET TOPS.

OUR experience is teaching us the value of sugar beet tops. We used to disregard them, except perhaps to curse them a little when they interfered with the tillage tools the following spring. We soon noted the greatly increased growth of the small grains

that followed sugar beets, wherever the tops had lain. Also, we are feeding them to the cattle and hogs now for the third season and attaching more and more value to them. We have taken more pains with them this last year than ever and are getting better returns. I can not see but that our cattle have done fully as well on them as on good corn silage when fed in about the same quantity and in connection with some dry roughage. They make a very good substitute for silage and cost only a little handling.

The boys recently hauled up a fresh supply from the little piles in the field. We are still feeding them, and it is much later in the winter than we ever thought we could successfully hold them. There is more or less white mold appearing on the raw surface where the top was severed from the beet, and the leaves are somewhat worse for weather, but the cows will leave bright corn fodder unnoticed and wait for them, and bawl for them, which is first class evidence that they still relish them. If there are any left when time comes to work the land in spring, they will be spread out over the ground as evenly and as carefully as if they were manure.—P. P. Pope.

LAMBING TIME.

LAMBING time is always a very interesting time for the flockmaster. Some years very little trouble is encountered at lambing time, and then again, seemingly under the same prudent management, endless trouble accompanies the lambing season.

Trouble at lambing time always has some definite cause. Lambs dropped deficient in development, ewes encountering trouble lambing, or lack milk for the new-born offspring, are troubles invariably traceable to improper management during pregnancy. With out growth-producing and home-making materials nature cannot perform her acquired work and function successfully. Lambing time reveals how well the ewes have been cared for during the period while carrying their young.

It has always been my practice to keep a record of my flock at lambing time. If there is an unusual amount of a certain kind of trouble there is some definite cause that can be remedied. If the ewes have been kept too fleshy or under-fed, lack of exercise or fed a too narrow ration to meet their need during pregnancy, such errors should be known and corrected.

FARMERS BELIEVE IN BETTER STOCK.

AN unusual amount of sound counsel on questions of live stock breeding is contained in recent reports received by the United States Department of Agriculture from stockmen throughout the country. The following terse statements seem suitable for consideration by farmers seeking to improve their herds and flocks.

"The choice of a herd sire will likely make or break you in the dairy game. If you pick a good one, the price you pay is of little consequence; if you pick a poor one, you will pay too much, even if you get him for nothing."

"Pure-breds are better sellers and make more meat for the amount of feed and length of time."

"When young untested stock is sold, the breeder should keep in touch with the purchaser so that if the stock does not turn out as it should through no fault of the purchaser, the breeder can make the deal right. It pays directly and indirectly, aside from the fact that it is the fair way to do."

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Registered Guernsey bull and heifer calves. May
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Reg. Guernsey Bull T. B. Tested. five years old. Four
daughters with records. Price
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Rose Breeding. JOHN EBELS, R. 2, Holland, Mich.

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Also tools, hay and horses.

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158.79 lbs. in 30 days as a Sr. 4-yr.-old.
What herd has been more prominent than
Pontiac throughout the past 40 years?
We can supply bulls from the original Pon-
tiac herd. Sires in service are from dams
with better than 1,100 lbs. butter and 25,000
lbs. milk in 305 days.

Send for Pontiac Pedigrees.



**Bureau of
Animal Industry**
Dept. C
Lansing, Michigan

FOR SALE REGISTERED HOLSTEIN FRIE-
SIAN COWS from 2 to 7 years
old. Some fresh, others to freshen soon. Will sell
one or more to suit purchaser. Best of breeding.
Prices are right. HENRY S. ROHLFS, Akron, Mich.

Quality Holsteins Young Bulls up to 8 months
of age. Good individuals and
Well Bred, at from \$50 to \$75, according to age.
I. M. SHORMAN, Fowlerville, Mich.

HOLSTEIN or GUERNSEY dairy calves, 7 weeks old,
\$20 each, crated for ship-
ment. Edgewood Dairy Farms, Whitewater, Wis.

(Hereford Steers)

60 Wt. Around 850 lbs.; 66 Wt. Around 740 lbs.
80 Wt. Around 650 lbs.; 46 Wt. Around 525 lbs.
50 Wt. Around 950 lbs.; 58 Wt. Around 450 lbs.
Also many other bunches. Deep reds, dehorned,
good stocker condition. Real quality Herefords are
usually market toppers when finished. Will sell your
choice from any bunch. VAN B. BALDWIN, Eldon,
Wapello Co., Iowa.

Registered Herefords Bulls, cows and heif-
ers for sale. RALPH
CALHOON, Branch Co., Bronson, Mich.

MICHIGAN JERSEY CATTLE CLUB

Pure-bred or grade cattle for sale. Can quote prices
on individuals or carloads. R. of M. and Cow Test-
ing Association records.
H. E. DENNISON, Field Man, East Lansing, Mich.

Financial King Jerseys Our bulls of service-
able age are all sold,
but we have a few bull calves of excellent breeding,
sired by our great herd sire, Financial King Sensa-
tion. Our prices are reasonable. COLDWATER JER-
SEY FARM, Coldwater, Mich.

Jerseys For Sale Bulls ready for service,
also a few females. All from
R. of M. dams. Accredited herd. Smith & Parker,
R. D. No. 4, Howell, Mich.

15 Cows, 4 bulls from R. of M. Cows. Chance to
select from herd of 70. Some fresh, others bred
for fall freshening. Colon C. Lillie, Coopersville, Mich.

Shorthorn Bulls For Sale. One 14 months old
red. One ten months old Roan,
good ones, and priced to sell. C. V. Tracy, Union
Phone, Ithaca, Mich.

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

Milking Shorthorn Bulls Reds and Roans.
Write me your wants.
WASTA HUBER, Gladwin, Michigan.

Registered RED POLLED CATTLE FOR
SALE. Some young bulls. Cheap
if taken soon. From heavy milking cows. JOHN
DEYARMOND, Mio, Oscoda Co., Mich., R. 1, Box 12.

SHORTHORNS OF MERIT Rodney's Model in ser-
vice. Bulls for sale. W.
E. MORRISH, R. 5, Flint, Mich.

Polled Shorthorn Bulls
GEORGE GILL & SON, Ypsilanti, Mich.

4 Brown Swiss Bulls for sale. Well bred.
T. B. Tested. FRANK
POET & SON, R. 6, Clare, Mich.

THE FARM ANIMALS.

IT is no longer a question as to
whether it is economical farming
or not to harvest the crops by use of
live stock. By pasturing forage crops
and feeding down grain crops, the ex-
pense of hiring help to harvest them
is done away with. This practice not
only enables the farmer to care for
his animals cheaper, but it also affords
him an opportunity of distributing the
labor more economically throughout
the year. This is due to the fact that
at the time when the crop is ready to
be harvested there is usually more
work than the farmer is able to do.
By turning the proper animals in on
the crop to be harvested, the farmer
also saves himself the trouble of car-
ing for the manure and hauling it to
the field as the animals scatter it with-
out loss.

Experiments have been run to see
if it is economical to harvest the crop
with the farm animals from the field.
There are no unsatisfactory results
and it has not only been proven that
farm animals harvest the crops cheaply,
but that while doing so make profit-
able gain and do much to maintain
the fertility of the soil.

There are many instances where
farmers might successfully use live
stock in harvesting the crops. In the
case where the rye, wheat or oat
crops have done poorly it would be
profitable to turn the pigs into the
field. Often the corn crop is not worth
husking or the soy-beans are only fair.
In this case part of the field might be
fenced off and successfully harvested
by hogs or sheep, and to some extent
by cattle.

Hay and grain must be obtained
from the farm for roughage for the
live stock that can not be left on pas-
ture. However, there is no reason
that on many farms the practice of
hogging off certain crops and pastur-
ing other crops should not be followed.

By watching the corners and using
the live stock as harvest hands suffi-
cient numbers of animals may be kept
to furnish profitable work during the
winter when other work is slack, and
when the live stock require most care
and attention. This system of farm-
ing affords the opportunity for remun-
erative labor throughout the year and
more profits with less expense and at-
tention to the farm producers.—Harry
I. Holt.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Advice through this column is given free to our subscrib-
ers. Letters should state fully the history and symptoms of
each case and give, name and address of the writer. Initial-
only are published. When a reply by mail is requested the
service becomes private practice and \$1 must be enclosed.

Thoroughpin.—I have a horse that
has thoroughpin affecting both hind
legs; the bunches are not large, do not
seem to cause pain or lameness. C.
S. Reese, Mich.—Apply equal parts of
tincture of iodine and spirits of cam-
phor to bunches daily. It is always
difficult to reduce such bunches and
when the animal is not lame, leave him
alone.

Worms.—I have a mare that has
been troubled with worms for the past
twelve months, have noticed her pass
some pinworms. W. C., Dryden, Mich.
Fast horse for thirty hours, give four
fluid drams of oil of chenopodium in
capsule, followed immediately by giv-
ing one quart of raw linseed oil. Flush
the rectum, using one part coal tar
disinfectant in thirty parts of tepid
water. If this mare is with foal, don't
give her above treatment.

Subscriber, Bad Axe, Mich.—Mare
sixteen years old has bleeding tumor
situated under her tail connected with
the bowel. Local veterinarian says she
is incurable. Your mare suffers from
melanosis, an ailment peculiar to white
horses. Giving drugs will not help
her, but bunch can perhaps be cut out;
however, your veterinarian should
know what is best.

False Teats.—I have a young cow
with two small teats, one connected
with each back teat, and they leak
milk while I am milking cow. R. S.,
Port Huron, Mich.—When dry, have
the small teats removed and apply
caustic to milk sack.

What is the Price of the Genuine
NEW IDEA SPREADER?

Why has NEW IDEA
led the field for
25 Years?

What about Factory
Facilities? Financial
Strength? Reputation?

Why are many other
spreaders like NEW
IDEA in General
Appearance?

What about Repairs?
Service? Guaranty? Do my
neighbors own NEW IDEAS?
Who is the Nearest Dealer?

These
are the Facts You Need
~before Buying Any Spreader!

WHEN you choose your spreader, make sure you
get the most for your money! Get efficiency, light
draft, greatest possible strength. Get a guaranteed
spreader—backed by an organization that knows how to
build extra quality in this vitally important farm imple-
ment—and which has the facilities and sales outlet for
big volume production and bed rock price.

Get the facts—today—from New Idea! Find out why the
original wide-spreading spreader has never
lost the lead since Joseph Op-
penheim invented the now
famous New Idea Distributor
—25 years ago. Please write
—or mail the coupon.



The New Idea Spreader Co., Coldwater, Ohio
"Spreader Specialists for 25 Years"

The New Idea Transplanter

New in design—more efficient in its work
—the New Idea Transplanter is the ideal
machine for market gardeners and grow-
ers. Handles all crops. Write or mail
coupon.



The New Idea Spreader Co., Coldwater, Ohio

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- ☐ New Idea Spreader
☐ New Idea Transplanter

Name _____

Address _____

200 REGISTERED HOLSTEINS

The Western Wisconsin Holstein Breeders' Sales Association's

First Annual Spring Consignment Sale
West Salem, Wis. - - - - - April 8-9

It was generally conceded by those who attended this Association's
fall sale that they had assembled the finest array of Holstein cattle
ever offered at public auction. The Association claims to have even
a finer string for this sale than they had last fall. Only those who
attended last fall's sale can appreciate how good the cattle must be
to be worthy of this claim.

Watch for following announcements. Write O. G. Clark, Sale Manager,
or A. L. Hyzer, Assistant Sale Manager, West Salem, Wis., for further
information.

HOGS

DUROC SOWS

Good yearling sows bred to Michigan's Grand Cham-
pion Boar, at \$65. Growthy gilts of approved type,
sired by above boar and bred to a Super Colonel
boar, at \$50 to \$70. These are registered and guar-
anteed to please. Lakefield Farm, Clarkston, Mich.

Registered O. I. C. Sows some due to farrow
soon, others later.
Gilts, yearlings and 2-year-olds. Also boars of all
ages. All stock on approval. Register free. FRED
W. KENNEDY, R. 2, Plymouth, Mich.

O. I. C. 6 fine fall boars and 1 choice
yearling boar. CLOVER LEAF
STOCK FARM, Monroe, Mich.

Big Type Chester Whites Yearling herd boars and
choice fall gilts. Will ship
C. O. D. LUCIAN HILL, Tekonsha, Mich.

Francisco Farm Poland Chinas

There are still a few of those good, big, bred gilts
left. The first \$50 checks get them. P. P. POPE,
Mt. Pleasant, Mich.

Big Type Poland Chinas
Choice gilts bred for Mar. & April farrow, for sale.
WESLEY HILE, Ionia, Mich.

Poland China Fall Gilts
Write for prices. E. A. Clark, St. Louis, Mich.

Fall Pigs either sex, by the great Boar. The
Wolverine. Priced reasonable. Best
of dams. W. E. Livingston, Parma, Mich.

Big Type POLAND CHINA FALL GILTS.
Rainbow - Clansman breeding.
Bred or open. Geo. W. Needham, Saline, Mich.

Large Type Poland Chinas Fall pigs of either
sex for sale. A. A.
FELDKAMP, Manchester, Mich.

Hampshires For Sale nice spring and fall Boars.
Choice bred gilts, 12th year.
JOHN W. SNYDER, R. 4, St. Johns, Mich.

SHEEP

Breeding Ewes for sale, extra good
young Delaines. V.
B. FURNESS, Nashville, Mich.

Registered Shropshire Ewes For Sale. Two-
year-olds due to Lamb in April. C. V. Tracy, Ith-
aca, Mich. Union Phone.

HORSES

FOR SALE One Registered Per-
cheron Stallion, four
years old. Weight 1,800 lbs., well broke and nice to
handle. Price right. E. A. ROHLFS, Akron, Mich.
Box 6, R. F. D. No. 3.

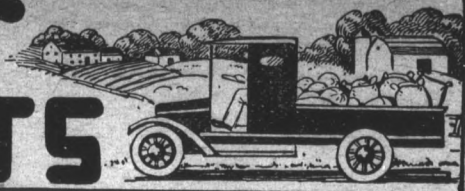
For Sale 1 Percheron Stallion, 3 years old,
of the Ton Type. E. R. Van
Vollenburg, Milan, Mich.

Strawberry Roan Belgian Stallion for sale, 4 years
old. Weight 1,800
lbs. HERMAN KOHLER, R. 2, Clinton, Mich.

TRY a Michigan Farmer Classified Liner—They cost
little and bring big results. See rates on page 451.



THE LATEST MARKET REPORTS



GRAIN QUOTATIONS

Tuesday, March 24.

Wheat.

Detroit.—No. 1 red \$1.79; No. 2 red \$1.78; No. 2 white \$1.78; No. 2 mixed \$1.78.

Chicago.—May \$1.65½@1.65¾; July \$1.45½@1.46¾; September \$1.31½@1.34¾.

Toledo.—Wheat \$1.76@1.77.

Corn.

Detroit.—No. 3 yellow \$1.15; No. 4 yellow \$1.10; No. 5 yellow \$1.08.

Chicago.—May at \$1.10@1.11½; July \$1.13½@1.14¾; September \$1.13¾@1.14.

Oats.

Detroit.—No. 2 white at 52c; No. 3 white 51c.

Chicago.—May at 44½@44¾; July 46¾c; September 46¾c.

Rye.

Detroit.—No. 2, \$1.18.

Chicago.—May \$1.25¾@1.26½; July \$1.15¾; September \$1.04½@1.04¾.

Toledo.—\$1.18½.

Beans.

Detroit.—Immediate and prompt shipment \$5.70@5.75 per cwt.

Chicago.—Navy, choice \$6.25; red kidneys \$10.

New York.—Choice pea at \$7@7.15; red kidneys \$10.25@10.50.

Barley.

Detroit.—Malting \$1; feeding 93c.

Buckwheat.

Detroit.—\$2@2.05.

Seeds.

Detroit.—Prime red clover cash at \$17; alsike \$13.90; timothy \$2.80.

Hay.

Detroit.—No. 1 timothy \$16@16.50; standard and light mixed \$15.50@16; No. 2 timothy at \$14@15; No. 1 clover and No. 1 clover mixed \$13@14; wheat and oat straw \$10.50@11; rye straw \$11.50@12.

Feeds.

Detroit.—Bran at \$32@33; standard middlings at \$33; fine middlings \$37; cracked corn \$56; coarse cornmeal at \$44; chop \$36.

Apples.

Chicago prices on apples: Northern Spies at \$7@8 bbl; Baldwins at \$7@7.50; Jonathans \$9.50 bbl; Kings at \$7.50@8; Greenings \$7.50@8; Wageners \$5.25@5.50 bbl; Grimes at \$5.50@5.75; Starks \$6.50@7; Ben Davis at \$5.50@6.

WHEAT

After a week of the most erratic behavior from day to day in trade history, with the main trend drastically downward, the wheat market has turned strong and signs are appearing that a stable bottom has been reached.

From whatever level the market finally turns on this decline, it seems probable that the trend during the rest of the crop year will be upward. The shortage of total supplies in this country and the close adjustment between the needs of importing countries and exportable surpluses available, would seem to justify a higher price. The prospects for the new crop, both at home and abroad, are not yet favorable enough to explain such a drastic revision in prices as has been made in a little more than two weeks.

RYE

On the low point of the break during the last week, rye prices were 40 per cent lower than at the high point of the season in January. In this grain, also, the decline would seem to have put the market in healthy position for an advance during the spring months. Large sales for export are being reported once more and there are reliable indications that clearances will increase quite soon. A large part of the stock of rye held at the seaboard is said to have been sold already. It will take continued buying of this sort, of course, to carry the market materially higher.

CORN

Corn prices held better than any other grain during the market crash of last week. Moreover, cash corn was relatively stronger than the future deliveries which were dominated by speculative influences. Primary receipts have fallen off sharply and the cash demand has improved. Prices are too high for export business as Argentina is still in position to supply most of the European requirements. Danubian countries are exporting some corn and the new crop in Argentina will be ready for harvest in another month.

OATS

Oats prices are sharply lower than

a week ago although they are showing a strong tendency to rally. Stocks in sight are tremendous but the price is so low that but little further decline is to be expected, even though the break in wheat has not yet culminated. Seeding the new crop of oats is proceeding rapidly as far north as Kansas. Conditions for the new crop are mostly favorable.

SEEDS

The heavy spring seed trade has not opened up generally, but the demand is expected to broaden materially after any prolonged mild weather. Retail prices of all kinds of field seeds other than sweet clover, timothy and sudan grass are higher than a year ago, which may curtail sales for some seeds. Dealers seem anxious for sales and some price concessions have been made.

FEEDS

The demand for feeds has not improved and prices are unchanged. However, mills are reducing their output, prices are low in comparison with the feed grains, and some improvement in prices usually comes in March and April so that the market probably is at the bottom for a while.

HAY

Good hay is firm at unchanged prices, but the large quantity of low grade hay on the market cannot be moved even at substantial discounts. With stocks of hay remaining on farms greater than last year, producers will continue pressing their holdings on the market and prices may not see any material improvement for some time.

POULTRY AND EGGS

Egg prices have steadily advanced during the past fortnight with a tendency toward narrowing the range of values. The usual spring decline was checked earlier and at a higher level than a year ago by the very early buying for storage. Accumulations at the four leading markets since March 1 have been nearly twice as large as in the same period a year ago. The increase has been more than equalled by the increase in receipts, however, so that consumption is being maintained on a larger scale than last year. Indications are that the spring egg lay will exceed that of 1924, and higher

prices may induce producers to market a larger proportion of the output than they did last spring.

Chicago.—Eggs, miscellaneous 28½@29c; dirties 28c; checks 27½c; fresh firsts 29¾c; ordinary firsts 28@28½c. Live poultry, hens 27c; springers 30c; roosters 18c; ducks 28c; geese 16c; turkeys 28c.

Detroit.—Eggs, fresh candled and graded 30@30½c. Live poultry, heavy springers 30@31c; light springers 25@26c; heavy hens 28@29c; light hens 24@25c; roosters 18c; geese 16@18c; ducks 32@33c; turkeys 35c.

BUTTER

Butter prices have eased off only slightly from the high point of the recent advance and the undertone of the market is still firm. Receipts have increased but are still comparatively light. Storage stocks are being rapidly reduced and if the March movement is as heavy as during February, which does not seem improbable providing production and consumption continue near present proportions, the holdings on April 1 will be close to the five-year average. Consumptive demand so far has shown no apparent curtailment because of the higher prices, but butter has been cheap so long that it is to be expected that the advance will affect purchases to some extent.

Prices on 92-score creamery were: Chicago 48½c; New York 47¾c. In Detroit fresh creamery in tubs sells for 45@48c per pound.

BEANS

The bean market is dull with only small volume of trade. C. H. P. Whites are quoted at \$5.80@5.85 per 100 lbs. f. o. b. Michigan shipping points. The wholesale grocers are buying sparingly and some of the beans purchased by California speculators several months ago are believed to be for sale on a moderate advance. Opinions remain far apart as to future values, with elevators asking \$6.25 and buyers offering \$5.75 for April shipments.

POTATOES

Potato prices were slightly lower last week in spite of the falling off in carlot shipments. The movement of old potatoes during the week was 12 per cent less than during the cor-

responding week last season. Most of the decrease was from Minnesota, North Dakota and Colorado. Shipments of new potatoes continue in excess of a year ago. The area planted and intended to be planted in 15 early potato states is estimated at approximately 242,000 acres, which is eight per cent less than last year. Northern round whites, U. S. No. 1, are quoted at \$1@1.05 per 100 pounds in the Chicago carlot market.

APPLES

Shipments of apples are considerably under the corresponding time a year ago and prices are firm. The movement of apples from storage has been larger than during the same time a year ago. Holdings on March 1 were 37 per cent less than on March 1, 1924. Illinois extra fancy 2½-inch Willow Twigs are quoted at \$8.50@9 at Chicago, while eastern A-2½-inch Baldwins cost \$6.75@7.25.

GRAND RAPIDS

Maple syrup and sugar of excellent quality and color was offered in Grand Rapids this week in liberal quantities. The syrup sold in a range of \$2.25@2.50 per gallon and the sugar around 35c a pound in small cakes. Fresh eggs were in more liberal supply and steady in price at 28@30c a dozen. Poultry was scarce, with fat fowls firm at 25@27c a pound. Pork has advanced to 16@17c a pound and beef has moved up in sympathy, topping around 15c. Veal was in liberal supply at around 14@15c. Apples are not moving as briskly as in former years, perhaps due to the low prices asked for citrus fruits. A-grade Spys are selling in a range of \$2@2.50 per bushel, while other varieties range from \$1.50@2 a bushel. Vegetables were barely steady. Potatoes were easy at 45@55c a bushel; carrots at 75c a bushel; turnips at 75c@1 a bushel; rutabagas 60@75c a bushel; parsnips \$1@1.25 a bushel. Cabbage was in liberal supply at 60@75c bushel. Beans have declined to \$5.40 per cwt., and wheat has rebounded to \$1.58 a bushel.

DETROIT CITY MARKET

Warmer weather brought a large supply of product to market. The volume of buying was fairly large, but not heavy enough to clean up the offerings. Good apples had a ready sale. Potatoes were in liberal supply, but the movement was light. The demand for fancy root parsley and carrots was a little stronger, but most vegetables continued draggy. Live poultry was in demand. The demand for the liberal supply of eggs was firm. Veal offerings were light and sold quickly.

Apples \$1.25@4 bu; beets, round, 65@75c bu; cabbage 65@75c bu; carrots 65@75c bu; horseradish \$2.50@5 bu; leeks 50@75c dozen bunches; dry onions, No. 1, \$1.25@1.50 bu; parsnips \$1@1.50 bu; potatoes, No. 1, 65@75c bu; rutabagas 60@75c bu; squash 90c @1 each; roots celery 75c@1.25 bu; honey \$1.15@1.25 per 5-lb. pail; butter 50@60c; eggs, wholesale 31@33c; retail 35@40c; hens, wholesale 28@32c; retail 33@35c; Leghorn hens, retail, 30c; springers, retail 33@35c; veal 18 @19c; dressed poultry, hens 35@38c; springers 35@38c.

WOOL

Belief is spreading that wool prices are close to a stable level. The volume of wool changing hands has increased, and, even though prices are still easy, confidence is more general than at any time in several weeks. The goods market has improved slightly. The sale at London is still in progress, with buyers taking the offerings at the decline in prices as established on the opening day. One-half blood combing and fine delaine fleeces on the Ohio and Pennsylvania order are quoted at around 62c in Boston, compared with 70c and above on the high point in December.

World wool production during 1924, as estimated by the United States Department of Commerce, was 2,837,000,000 pounds. This was an increase of 117,000,000 pounds over 1923, but it falls 397,000,000 pounds short of the five-year average from 1909 to 1913.

COMING LIVE STOCK SALES.

Holsteins.

March 31—H. C. Ruggles, Moorepark, Mich. Receipts 572. Market steady.

Live Stock Market Service

Tuesday, March 24.

CHICAGO

Hogs.

Receipts 20,000. Market generally steady to 10c lower than Monday's close; 150 to 175-lb. average mostly \$13.25@13.65; bulk 180 to 210-lb. average \$13.70@13.75; strong weight pigs \$12.50@12.75; bulk of packing sows \$13@13.50.

Cattle.

Receipts 10,000. Active change, especially on heavies. Yearlings and handyweights in demand; trading is steady on fat steers and yearlings; light yearlings \$11.50; heavies \$11.35; some handyweights held at \$11.75; all others steady; bulk vealers \$9@10 to packers, outsiders \$10.75@11.50.

Sheep and Lambs.

Receipts 12,000. Market dull; late run on fat lambs; good weight to packers; sheep 25c lower; most early packers weak; outsiders strong; best earlies at \$16.75; bulk fat ewes uneven; choice shorn ewes \$15.

DETROIT

Cattle.

Receipts 412. Market steady. Good to choice yearlings dry-fed \$9.50@10.50. Best heavy steers, dry-fed 8.75@9.50. Handyweight butchers 7.75@9.00. Mixed steers and heifers 6.50@7.75. Handy light butchers 6.00@6.75. Light butchers 5.00@5.75. Best cows 5.50@7.00. Butcher cows 4.25@5.25. Cutters 3.00@3.50. Canners 2.25@3.00. Choice bulls 5.00@6.50. Heavy bologna bulls 4.50@5.25. Stock bulls 4.00@5.00. Feeders 6.00@7.25. Stockers 5.25@7.00.

Milkers \$45.00@80.00

Veal Calves.

Receipts 553. Market 50c lower. Best \$13.50@14.00. Others 5.00@13.00.

Sheep and Lambs.

Receipts 354. Market steady. Best lambs 16.50. Fair to good sheep 15.00@16.00. Light to common 10.00@12.00. Yearlings 13.00@13.50. Fair to good sheep 8.00@9.50. Culls and common 4.00@6.00. Buck lambs 7.00@16.00.

Hogs.

Receipts 1,633. Market weak to 25c lower. Mixed hogs, heavy y'rkr. \$14.00. Pigs 12.75. Little yorkers 13.90. Yorkers 13.25. Roughs 12.65. Stags 7.00@7.25.

BUFFALO

Hogs.

Receipts 4,560. Hogs closing slow. Heavy sold at \$14.15@14.25; medium \$14.35; light \$14.25@14.50; light lights \$13.25@14; pigs \$13@13.50; packing sows and roughs \$12.50.

Cattle.

Receipts 2,500. The market is steady. Steers from 1,100 pounds up at \$8.50@11.25; steers 1,100 lbs. down \$6@10.50; load of yearlings up to \$10.50; heifers \$5.50@9; cows at \$2.50@7; bulls \$4.50@6.25.

Sheep and Lambs.

Receipts 7,100. Tops selling at \$17; culls \$15.50 down; yearlings \$13.50@14; aged wethers \$11.50; ewes \$9@10.

Calves.

Receipts 400. Tops at \$14; culls at \$11.50 down.

THE CAPPER-HAUGEN BILL.

It is the intention of the President's agricultural conference to hold another session before congress convenes, at which, it is indicated, a co-operative marketing plan will be developed which will more nearly meet the approval of the farmers. It is felt by members of the farm bloc who favored the Capper-Haugen cooperative marketing board bill, that the farmers in general did not fully understand the proposed plan and that much misleading propaganda was sent out for the sole purpose of stirring up opposition to the bill. With a better understanding of the proposal it is believed that the farmers who compose the membership of cooperatives will favor a measure following closely the general lines of the Capper-Haugen bill.

BEAN GROWERS MEET.

A PRELIMINARY meeting of leading bean growers from various sections of the state met at Flint last week to give further consideration to the matter of studying the grading and inspection of beans, and making a survey of the industry from the producers' standpoint to learn if possible the attitude of Michigan growers toward federal grading and inspection.

The bean growers present at this meeting were bona fide. The average production for those gathered was around 1,000 bushels. Plans for reaching the farmers in the principal bean-growing counties were perfected. These contemplate the organization of county groups who will in turn organize a state association.

It is interesting to note that the demand from Michigan farmers for certified potato seed has increased twenty-fold since 1921. However, it is regrettable to further note that seventy-five per cent of the certified seed grown in the state is sold to farmers in other states. Last year's crop of seed is now moving to other states very rapidly.

COUNTY CROP REPORTS.

Allegan Co., March 14.—No sugar beets. Potatoes, beans and corn acreage about the same as last year. More seed corn here than will be used. Building and repairing at a standstill. Hogs 12c; veal calves 11@12c.—R. W.

Huron Co., March 13.—Normal acreage of sugar beets, potatoes and beans are likely to be planted. Condition of seed corn fair. Not much building or repairing. Trees are not sprayed as a rule. Little marketing at present. General outlook is good for general farming in Huron county. Auction sales well attended and price good.—A. W. C.

Shiawassee Co., March 12.—Sugar beets, potatoes, beans and corn will be about the same acreage as last season according to what advice can be gathered at this time. Seed corn is scarce. No general amount of fruit

tree spraying going on. Marketing conditions rather light owing to rough roads. Building and repairing will be fairly active as soon as weather conditions will permit. Outlook for local farming fairly good.

Gladwin Co., March 14.—In this community there will be planted around 300 acres of sugar beets, seventy-five acres of potatoes, 200 acres of beans, and 300 acres of corn. Corn was a poor crop here last year. Not much seed corn has been saved. Many are inquiring for good supply. Some building repairing is being done. There is a little marketing of rye, oats and beans. Rye brings \$1.20; oats 48c; beans \$5.50 per cwt. An average acreage of crops is being planned. Help is scarce.—L. A. C.

Benzie Co., March 14.—Owing to the low price received for potatoes the past two years, the acreage will be limited this year. Beans appear to be more in favor. The usual amount of corn will be planted, and there is plenty of seed here. Some building repairing is going forward. Fruit trees are well budded. Our growers here spray well. Nothing is being marketed at this time.—W. A. M.

Bay Co., March 14.—In this particular locality only a small acreage of potatoes and sugar beets are planted. Beans this year will be a large crop, while corn will probably run 50 per cent of normal. Seed corn is scarce. Building and repairing are being planned on a small scale. Wheat brings \$1.70; oats 48c; rye \$1.25; barley \$1.80 per cwt.; buckwheat \$2 per cwt.; beans \$5.50 per cwt. The outlook for farming is improving. Farmers are watching the controversy over federal grading of beans with much interest.

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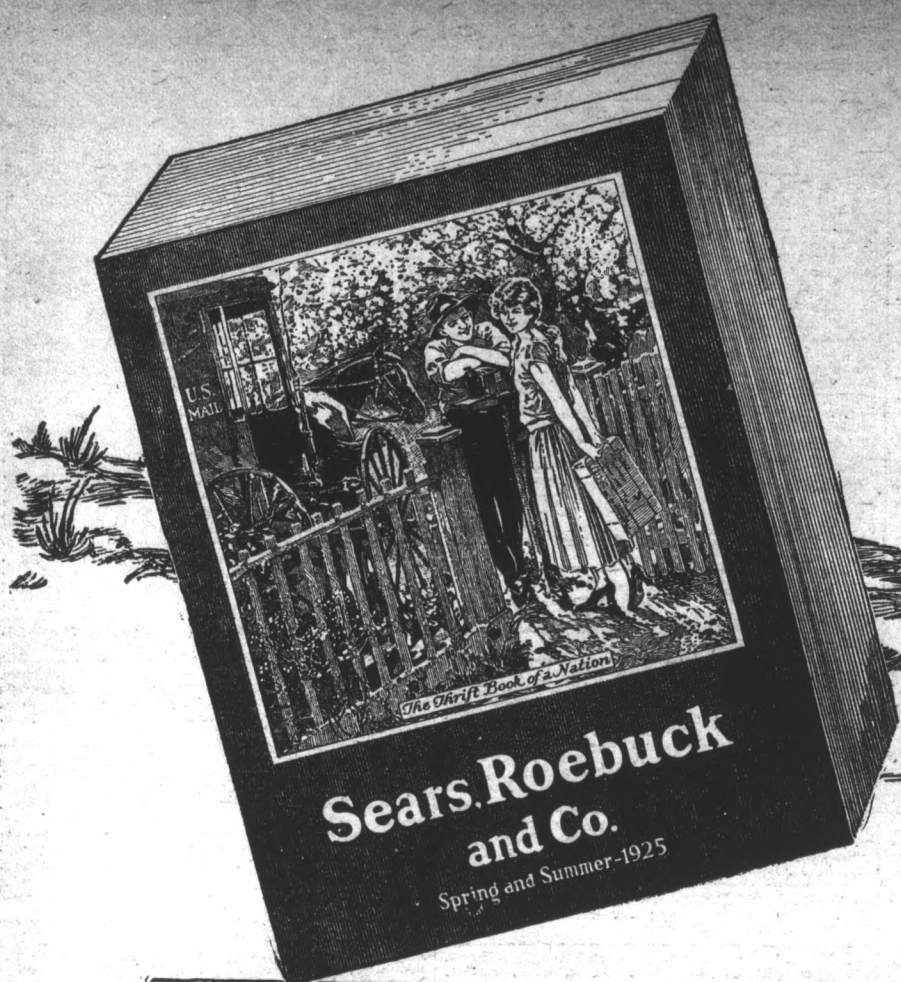
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