

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
PUBLISHED WEEKLY. ESTABLISHED 1843.

VOL. CLVIII. No. 20
Whole Number 4201

DETROIT, MICH., SATURDAY, MAY 20, 1922

ONE YEAR \$1.00
FIVE YEARS \$3.00





Published Weekly Established 1843 Copyright 1921

The Lawrence Publishing Co.
Editors and Proprietors

1632 Lafayette Boulevard Detroit, Michigan

TELEPHONE CHERRY 8384

NEW YORK OFFICE-95 Madison Ave.
CHICAGO OFFICE-1109 Transportation Bldg.
CLEVELAND OFFICE-101 1-1013 Oregon Ave., N. E.
PHILADELPHIA OFFICE-261-263 South Third St.

ARTHUR CAPER President
PAUL LAWRENCE Vice-President
MARCO MORROW Vice-President
J. F. CUNNINGHAM Treasurer
F. H. NANCE Secretary

I. R. WATERBURY Associate Editors
BURT WERMUTH
ALTA LAWSON LITTELL
FRANK A. WILKEN
I. R. WATERBURY Business Manager

TERMS OF SUBSCRIPTION

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

RATES OF ADVERTISING

55 cents per line agate type measurement, or \$7.70 per inch (14 agate lines per inch) per insertion. No advertisement inserted for less than \$1.65 each insertion. No objectionable advertisements inserted at any time.

Member Standard Farm Papers Association and Audit Bureau of Circulation.

Entered as Second Class Matter at the Post Office at Detroit, Michigan Under the Act of March 3, 1879

VOLUME CLVIII NUMBER TWENTY

DETROIT, MAY 20, 1922

CURRENT COMMENT

THE MICHIGAN FARMER SAYS:

Carefully selected seed is the "seed" in succeed.

It pays to cultivate friends as well as crops.

Faith and hope now make it possible to give charity next fall.

We become agitated about taxes but the biggest tax we put upon ourselves and make no complaint. That tax is negligence and its results.

This month is properly named. It means, "You May do these things." December should mean, "they are done."

Feeding Steers at M. A. C.

WE have just received the results of the second year of steer feeding at the Michigan Experiment Station under the direction of the Department of Animal Husbandry of the Michigan Agricultural College. The purpose of this test was to show the comparative value of feeding normal silage and stover silage to fattening steers. The work this year shows similar results to those secured in 1921. However, the margin of advantage in favor of feeding normal silage was not so wide in the period of feeding just completed.

Here is the comparison in the total cost of the three separate lots of steers: Lot No. 1, which was fed normal silage, oil meal, shelled corn and clover hay, produced a hundredweight of gain, not considering the pork produced on the hogs following the steers, at \$9.16. Lot No. 2, which was fed the same ration with the exception of stover silage being substituted for normal silage, produced gains at \$9.41 per hundred. Lot No. 3, which was fed the same as Lot No. 2, excepting that it received an amount of shelled corn approximately equal to that removed from the stover silage consumed for the first fifty-nine days, made gains at a cost of \$9.59.

When the cost of pork is deducted, then the cost of Lot No. 1 was reduced to \$7.88; of Lot No. 2, to \$8.37, and of Lot No. 3, to \$8.23. The experimenters found further that it would be necessary to sell these steers at the following prices after deducting the value of the pork produced: Lot No. 1, \$6.85; Lot No. 2, \$6.87; Lot No. 3, \$6.89.

We hope to have for publication in an early issue of this journal the actual prices for which these steers will

sell on the market. The prices when available, will be published, together with all the detailed data on amount of feed consumed and the cost of the various items in the feeding bills of the three different lots. These costs will also be compared with those obtained in the similar experiment a year ago. We desire to take this opportunity for congratulating the Agricultural College and the Experiment Station upon this very practical work.

Sugar Beets in Europe

THE producers of sugar beets in this state and country will be interested in the outlook for the production of this crop in Europe. The department of commerce at Washington has just issued a statement to the effect that the heavy producing countries across the Atlantic at the last moment are curtailing their spring sowings of the beet crop.

This curtailment is due to a number of causes. Bad weather in some sections is delaying seeding to an extent that producers are giving over a portion of their acreage to other crops. High potato prices have stimulated the planting of that crop to the detriment of the beet crop in the Netherlands, Belgium and Denmark. In Germany there will be no increase in the acreage over last year because of a shortage of farm labor. Italy expects to raise about thirty per cent more beets than a year ago, but this will just nicely take care of her home requirements and leave nothing for export as was earlier expected. France will increase her acreage around fifteen per cent.

A careful review of the whole European situation makes it appear at this time, according to the department of commerce, that Europe will just about grow sufficient beets to make what sugar she will need during the coming year. This is far different than the expectations were three months ago, when it was figured that the aggregate production of sugar from this season's crop would give a large tonnage for export.

The Farmer is on the Job

DURING the past week we traversed ten counties in central Michigan, stopping frequently to talk with farmers about their business and to observe as carefully as we could the present status of agriculture in those counties. One matter impressed itself forcibly on our minds. This was the splendid exhibition of faith on the part of these toilers.

Farmers everywhere have gone through a most trying period. Nearly all the things that possibly could occur has happened to the rural class seemingly to break down their morale. Prices for farm products dipped to subnormal levels, while the cost of needed supplies were fairly well sustained near the peak point of super-prosperous days. The transportation charges have seemed outrageous. Legislation inimical to the farmer's highest good have been urged by selfish interests. Rotations had been thrown out of gear by the urgent demands of the great war, while money or credit has been practically impossible to secure. These and many other things have tested to the very limit the fiber of the farm folks.

But they have pulled themselves together and now rise to full stature to face the issues of another year. They certainly are on the job these days preparing the ground and planting with full faith that another harvest time will come in due season. It would seem that the farmers have never worked more faithfully, exercised more pains in fitting the land, or selected seed with more discrimination than

they are doing this very day. Their faith rests on those fundamental principles of careful planning, much industry and unlimited patience.

Employer vs. Employee

THE other day a reader referred to this time-old subject that has been meat for agitators and aggravators for centuries and will likely be for some years to come. Our reader spoke of the rural phase of this question. He said that the farmer did not want competent help, but a slave who will work all hours of the day and night and live in a hovel or walk out from town.

The single man, he said, would not go back to the farm because he likes his evenings off and the city's bright lights. And the married man needs a suitable place for his family, and congenial neighbors, some who do not consider themselves better than the hired help.

In many instances there is much truth in what he says, but not in all. One can also find similar conditions, if not worse, in the city where, in the crowded tenement house sections people live and raise children under the most adverse conditions.

Such conditions can not be remedied by saying they should be, or by hatred and agitation, nor can they be changed in a day.

Our great hope for the future of this problem is that we are gradually working to the time when thought of self will be replaced by thought of service. Time is eliminating class lines and bringing a fuller realization of our responsibility to each other regardless of our station in life. When that time arrives employers and employees will come to understand that both are gainers when they play square with each other.

A Short Pig Crop

IN recent issues we have commented upon the increased number of brood sows on the farms of the country as compared with the number being kept a year ago. In these comments, it was intimated that a large crop of spring pigs would probably have a downward influence upon hog prices this coming fall.

It is only fair to state that during the past few days reports have come to us from various sections indicating an unusually heavy loss of spring pigs over a wide territory. We do not know what this loss will ultimately amount to. In a number of sections the situation is altogether discouraging to the hog growers. Many farmers report the loss of their entire pig crop. More state that fifty per cent of the pigs have died and that many of those remaining are runts and do not promise well. If the general loss approaches at all closely that sustained in these districts from which definite reports have been received then it would seem safe to calculate that the additional eleven per cent of brood sows now in the country would not give us a crop of pigs as large as that produced a year ago.

We are sending requests throughout this and other states to learn, if possible, what the extent of this loss has been. In the meantime it would seem to be the part of wisdom for farmers to give every care possible to the pigs they now have on their farms.

The Significance of Dirt

SOMEONE has said, and truthfully so, that "dirt is matter out of place." As, for instance, powder on a woman's face is perfectly all right, but when it gets on a man's coat sleeve it is dirt, just plain dirt. Also, jam is a material in good standing when it is on bread, but when

it serves as a facial decoration for some youngster it lowers itself to the plain dirt class.

Again, in the search for precious metals we wash away and discard the "pay dirt" to get the pure, clarified metal. Apparently dirt is non-essential. Then perhaps it is so in life; we have to handle a lot of dirt, a lot of non-essentials, before we get to the nuggets of truth. It may be that many of us load ourselves with so much dirt that we do not get to the truth at all.

Then comes the thought as to why we hear the expression, "dirt farmers" so often. The only justification for it that we can find is that it might refer to those farmers who labor strenuously at non-essentials and never uncover the great essentials that make farming a success.

If we need some expression of this sort for the result-producing farmer, we suggest the name "soil farmer" for soil is matter in place and indicates life, fertility and possibilities. This expression would also indicate that this farmer was not engaged in a starched collar activity and that his hands, at least, got soiled in his endeavors.

If this suggestion is accepted we can then put farmers in three great classes: Dirt farmers, soil farmers, and urban agriculturists. The latter never work up a perspiration by their farming endeavors.

Mother and Maiden

MAYBE you remember me tellin' all about Son and Sire when me and Sam went and et with the Ladies' Aid and I told the boys what they was comin' to.

Well, this time Sophie and sister went, but I don't know whose Aid they et with. Anyhow, I had to stay home and take care of the baby, this bein' the celebrashun of mother and daughter.

Now, I can't report the meetin' 'cause I wasn't there and didn't say nothin'. But I kin say a few words on the subject, 'cause of my experience. Now, I know I ain't no Ma, 'cause I just couldn't make our little Sarie stop cryin'.

I went at her what you call systematic-like to hunt the trouble, and I found all the pins and other machinery O. K. But the horn kept a tootin' right along no matter how ruff-like I acted to her.

Well, when Sophie gets home she says, "All she wants is somethin' to eat." Since then I've been wonderin' what I coulda done about it.

But you know, when you think of it, motherhood is wonderful, for Mother is the beginin' of creashun, the beginin' of life for all of us. And then Mother is sufferin', happiness, sadness, love and home. Seems like the world's history is repeated with each mother.

We men folks go 'round like banty roosters, but what would we be if it wasn't for Mother? I know I would be nothin' but now I am Hy Syckle, all because of Mother. (Mother ain't never said if she was proud of her accomplishment).

And then the maiden—what is nicer than maidenhood? There ain't no nicer blossom bloomin', and I like flowers awful well. We wanta keep it precious and pure for there ain't nothin' more sad-like than a withered blossom.

I'm kinda hopein' Mother and maiden don't get in what you call a secret conspiracy against sire and son 'cause we wouldn't stand no show if they do. But I know they won't, 'cause they ain't that way.

HY SYCKLE.

Opportunities in Seed Production

Michigan Is Becoming Famous As A Pedigreed Seed Producing State.

By H. C. Rather

THE Michigan Crop Improvement Association is just completing one of its most successful seasons. This organization, open to any farmer in Michigan, is cooperating with the Michigan Agricultural College and the Michigan State Farm Bureau in the production, maintenance, and distribution of quality seed from high-yielding crop varieties.

While practically every farmer has experienced the adversities of depressed agricultural conditions the grower of pedigreed seeds has found this specialty bringing in splendid returns through it all.

Farmers and others interested in agriculture have long appreciated the value of quality seed. With many of the acre costs of production practically standard whether the yield be large or small, the user of high-yielding seed finds that he is employing a factor which aids materially in bringing his yield per acre well above the average, thereby lowering his cost of production per bushel or ton and leaving him a wider margin of profit.

Work in plant breeding is a recognition of this important factor in the farm business and men at the Michigan Agricultural College have been busy for years selecting, breeding, and developing varieties that would place crop production on a more stable and economical basis. That their work has been effective is recognized in testimonials at every hand by satisfied growers of Red Rock Wheat, Rosen Rye, Wolverine Oats and Robust Beans.

But the work of developing improved varieties is only a part of the better seed movement. Pure seed does not stay pure of its own free will. Cross fertilization, mixtures in threshing machines, in farm bins, and in elevators soon bring down the quality of good seed unless careful precautions are exercised. It was for this reason that the Michigan Crop Improvement Association came into being. Its purpose is to make permanent the benefits derived from the development of

better varieties. One feature, for inspection is found to be of such superior quality as would make it especially suited for further seed production. It must be grown from Elite seed or the previous generation of registered seed. The price at which it is sold is considerably above the commercial market and it is the foundation stock for the pedigreed seed grower. The third kind of pedigreed seed is called certified seed. Its purpose is to make available large quantities of guaranteed seed of high-yielding adapted varieties at a small margin above the commercial market. It is used by

be seed producers and that some of our crops must find their way to the mills, the canneries, and the feeding stalls, still Michigan has built up an enviable reputation as a seed producing state. During the past three years the demand for Crop Improvement Association seeds has been far greater than could be supplied. This spring Wolverine oats, Michigan Black Barless and Wisconsin Pedigree barley were all sold out at an early date. Growers of Pedigreed Robust beans sold out entirely and were turning back orders eight weeks before bean planting time. All the wheat and rye found a ready market last fall and soybeans and corn are experiencing nearly as good results.

The margin above the commercial market has been such as would pay the grower well for his added care in keeping the seed pure. Pedigreed Rosen Rye seed sold last fall for \$2.00 per bushel; Red Rock wheat brought \$2.25. Of the spring seeds, oats sold for \$1.00 to \$1.50, barley for \$2.00 to \$2.25, and Robust beans brought \$6.00 per bushel. Prices given here were those charged for one to five-bushel lots. When more than five bushels was sold in one order a substantial reduction has always been made.

Much of this demand for Michigan Pedigreed seed may be attributed to the efficient sales service of the Michigan Farm Bureau Seed Department which has developed extensive markets for Michigan seeds in other states, as well as a big business with farmers-cooperative organizations within Michigan. The wants of many of these purchasers both in and out of the state could not be fully supplied this past season and the situation warrants a substantial increase in the number of producers of pedigreed seed. Many new growers who have purchased seed eligible for registration are getting in touch with the association secretary at East Lansing and will assist in a healthy expansion of this profitable seed business.



Some Pedigreed Seed in the Making.

The system of seed introduction, inspection and dissemination which has been followed by the association for years but which has altered slightly and more clearly defined at the annual meeting last winter is as follows:

Three kinds of seed are recognized. The first, produced only in small quantities, is Elite Stock seed, which is seed of pure line selections or of exceptional merit whose superiority has been demonstrated in tests under the supervision of the Farm Crops Department of the Michigan Agricultural College. Its purpose is the introduction of a new variety or improved selections in an old one.

Registered seed is the term used to designate that seed produced by members of the association which upon in-

the grower interested only in securing the yielding characters of such seed and not caring about further inspection.

Inspection supervised by the Farm Crops Department of the Michigan Agricultural College assures that seed produced and marketed by members of the association be of known origin, purity, quality and vitality. Inspections are made both in the field and of a representative threshed sample and, in the future, with registered seed, a third inspection will be made at the cleaning point and all such seed as meets the association requirements will be sold in sealed sacks. An eight dollar inspection fee paid by the grower covers the expenses involved.

While it is obvious that all can not

Management of Young Turkeys

By N. Evalyn Ramsdell

IT is at hatching time that we appreciate having saved the tame pullets for breeders. The typical wild turkey hen resents interference, but the tame one is willing that we share her responsibility and is one of the greatest factors of success in rearing the young. She will allow us to take the little ones from the nest or to feed and care for them without becoming nervous and cross.

When the hatch is completed she should be kept from wandering away as she is instinctively inclined to do, and I have found the following method most satisfactory:

Take the hen and little ones carefully from the nest to the house which is ready for them. This is a good roomy, well ventilated house, the dimensions of which should not be less than three feet by four feet, and four feet high at the front.

Then tie a strong soft cloth to the shank of the hen and to this tie six or eight feet of clothesline. This is fastened to a weight (an old plow point is good) which is placed just outside of the house. After putting her down keep the little poults at a distance until she is accustomed to being tied. She will soon quiet down, call the little ones to her and make the best of

the situation. She can go in and out of the house and can be removed to fresh, grassy places during the day, but is shut in with wire netting door at night and during storms. After a week or ten days she is given her freedom but is brought back to the house at night and in stormy weather until they are old enough to roost. See that the house is kept clean and dry.

First feed is given when from twen-

ty-four to thirty-six hours old. This is dry bread, ground fine and mixed with hard-boiled egg. Feed four times daily, just a little at a time. After three days begin giving rolled oats once a day at first, and later alternately with bread and egg.

When about one week old start feeding a good grade of chick grain, sometimes adding cracked wheat.

At about this time, also, a mash is

added to the ration for the morning meal and is made as follows: Finely chopped greens, (onions, lettuce or dandelions), mixed with bread and egg and with rolled oats. A small amount of granulated charcoal may be added at times. Gradually discontinue the egg and bread and add more of the rolled oats and some bran to the mash.

Never prepare more than you want to feed at one time and never feed more than they will clean up quickly.

Continue this mash, chick grain and rolled oats, feeding four times daily for the first month or six weeks, or until they are ready to go away on range.

They are very fond of lettuce when taught to eat it from your hand.

Sour milk, thick clabbered milk, is a valuable part of the ration. Start giving when three or four days old and continue through the season. Let them have all they will take twice a day. See that they have a supply of fresh water at all times.

Never overfeed. The amount given should not be more than they will clean up thoroughly in three or four minutes.

Feed on clean boards or trays and provide grit (coarse sand), oyster shell, and charcoal where they can reach it at all times.



Future Thanksgiving Dinners Getting a Feed of Lettuce.

Making a Good Bean Crop

Some Why's, How's and When's of Bean Growing

J. F. Cox,

Professor of Farm Crops, M. A. C.

ALL indications are that a substantial increase will be made this season in the Michigan bean acreage. The feeling is widespread among bean growers and bean dealers that beans can be extensively planted with more than usual assurance of meeting with favorable market conditions after harvest. The demand for high-grade seed, particularly of the Robust and Early Wonder varieties, has been unusually strong.

The acreage which is planted to beans is determined very largely by price conditions—the price paid for the past season's crop and the farmer's opinion of the price which will be paid after the coming harvest. Compared with prices on other staples, bean prices have been well at the top of the list.

The present emergency tariff offers protection against foreign beans. The large supply of foreign and domestic, dried and canned beans held over at the close of the war has been practically exhausted. On the market either dried or canned Michigan beans are of the best from the standpoint of quality and flavor. In the production of white pea beans Michigan leads all other states. Factors which make beans one of the most dependable crops for Michigan are adapted soil and climate conditions, farmers skilled in bean growing, a reduced supply in the hands of dealers, a protective tariff, a reputation for high quality, and excellent marketing facilities.

More Beans Per Acre at Less Cost Per Bushel.

There are two classes of bean growers in Michigan—those who plant beans as a special money crop and who have mastered bean production and the other class, those who treat

beans as a catch crop, "in and outers," who plant the crop with little preparation. There are many men who consistently get twenty bushels or more beans per acre in bean growing localities, yet the state average yield for a number of years is only ten bushels per acre. There are altogether too many who are not getting what they should from beans. It costs almost as much to bring through a ten bushel crop as a twenty-five-bushel crop per acre of beans. There are a great many men in Michigan growing beans who plant on poorly fitted seed beds and harvest small yields but there are mighty few, if any, who lose money through over-preparation. A great number use little or no fertilizer. Very few, if any, use fertilizer to the point of diminished returns.

Without doubt at this time most careful growers have secured clean, high-yielding seed of the Robust, Early Wonder or a high-yielding local variety of known worth, but the fitting of seed beans has just begun in most localities. Beans will do best on fertile loams, silt loams or clay loam soils which have been fall-plowed or early spring-plowed to a good depth and which have been manured. Late May or early June plowings should be followed immediately with weighted roller or cultipacker and worked with disc, spring-tooth or spike-tooth harrow, cultipacker or weighted bar roller until the lower part of the furrow slice is well packed and the surface worked to a condition approaching garden tilth. Each bean seed planted is pushed out of the ground again in the

development of the seedling, hence cloddy or poorly fitted ground will give an ununiform stand. Fall or early spring-plowed land can be put in better condition than late-plowed ground by disking and harrowing.

The cost of later cultivation is greatly lessened if the seed-bed is thoroughly fitted so as to control the weeds to a large extent before the bean crop is planted. Extra work in fitting the seed-bed lessens the cost of growing beans.

Eighty per cent of Michigan's bean crop is grown in the Thumb and the region south and west of the Saginaw Bay. Plowing has been delayed this spring and many of those who did not fall-plow will need to give particular attention to fitting the seed-bed.

Phosphate for Beans.

Acid phosphate and complete fertilizers high in phosphorus pay on the bean crop. On ground which has been well manured and is well supplied with organic matter, 250 or 300 pounds of acid phosphate (sixteen per cent), applied broadcast or when fitting the seed-bed or applied when drilling, allowing to go through all drill tubes, will give excellent results. A complete fertilizer such as 2-12-4, used at the rate of 300 to 400 pounds per acre on soils of average or somewhat depleted fertility will give paying results. Fertilizer should be applied broadcast in fitting the seed-bed and not more than 100 pounds drilled with beans at planting time. The bean crop will pay a good profit from much larger amounts of fertilizer than most growers use.

Plant at the Right Time.

Bean planting in Michigan begins about May 25 and continues until June 25 in the ordinary season. As a general rule those who plant on a well-fitted seed-bed before the middle of June harvest the largest and best matured crop. Planting late in the season carries the crop late in the fall when damage from frost and weathering is most likely to happen. The early planter escapes the frost risk in the fall and usually gets his crop off under good weather conditions. It is an old saying that "it is better to have two spring frosts than one fall frost strike the bean crop." Beans should be planted on a firmly compacted bed to a depth of not more than one and one-half inches.

After planting the crop should be cultivated once or twice with weeder or spike-tooth harrow. Cultivation with cultivator should begin as soon as the bean plants show in the row. The first cultivation should come close to the row and may be fairly deep. Later cultivation should be shallow so as not to prune the feeding roots. From three to five cultivations are usually necessary in keeping the bean crop clean, largely according to the thoroughness with which the seed-bed was prepared. It takes from 100 to 130 days to mature a bean crop but the real profit from the crop is determined during late May and June when the ground is fitted and the seed planted.

Without doubt the white pea bean is the most dependable for extensive planting, but during the past few years the red kidneys have brought a nice premium over white beans and have been in good demand. The seed supply of red kidney beans is already so reduced that no very great increase in acreage is possible.

OUR SERVICE DEPARTMENT

IMPLIED EASEMENTS.

A has a piece of low land that is ditched across B's land. B's ditch has been there forty-seven years. At time ditch was dug same man owned both forties. Now B insists on A tiling across to have right of way. B filled up a portion of ditch and when A opens it B fills it up again. Does A have to tile B's land in order to have right to run the water?—L. A. W.

If a person having two tracts of land sells one of them in such condition that the one kept is in servitude to the other, even by artificial drains, the tract sold carries with it an easement for drainage across the other tract retained. The seller or his grantee is liable in damages and may be enjoined at the suit of the buyer for filling the ditch. The buyer is under no obligation to tile the other piece.—J. R. R.

CLAIM AGAINST ESTATE.

My brother-in-law promised me \$5.00 a week when he hired me for five weeks, eight years ago. But he hasn't paid me yet. Could I get my money and the four per cent interest from that time, after his death when things get straightened up, if I don't get it before?—W. L. D. W.

On the face of the statement there is a debt only for the \$25 which outlawed two years ago. The liability for payment for services since rendered depends on the circumstances under which they were rendered, as raising an implication of a promise to pay for them. There is no presumption,

between brothers-in-law as there would be between parent and child that the service is donated. But the acquiescence and continuance to work for eight years without pay would raise a strong presumption that no pay was promised or expected. The claimants against an estate cannot testify in their own behalf. Their claims must be proved by other testimony.—J. R.

HORSE NETTLE.

I have a weed in my garden that the county agent says is horse nettles, others say it is not. It has a white and blue blossom and that forms into a ball of seeds like a small yellow tomato. It has thorns on like rose bushes. I would like to know what is the easiest and quickest way to get rid of it.—H. D.

The weed described is certainly the horse nettle, *Solanum carolinense*. This is, in my opinion, the worst weed in Michigan in view of the difficulty of exterminating it. If the patch is not too large the most economical method in the long run would be to dig out every underground part, spading over the ground with a potato fork to a depth of at least eighteen inches and picking out the roots and root stocks as they are turned up. These should be placed on a bonfire and burned. If allowed to lie on the surface of the ground they are apt to take root again and start the pest in another locality.

If the patch is too big to dig up by

hand the land should be hoed or cultivated at very frequent intervals, taking care not to drag the underground portions of the plant to portions of the field where the pest is not already established. This practically means that the cultivator should be turned around when the end of the patch is reached and run back again. Cultivation should be frequent enough so that no green leaf of the weed is permitted to appear above the ground during the whole growing season, and during the warmer parts of the year if the ground is moist this will mean sometimes cultivating the patch every five days. The field should be kept in a cultivated crop next year also, and you should go over the patch about twice a week carrying a sharp hoe with you so as to chop out as deeply as you can reach any little shoot that may appear above the ground, this, of course, in addition to the regular cultivations. You cannot be too thorough or go to any too great expense in exterminating this weed before it gets too widely spread on your land.—E. B.

RIGHT ON ROAD.

A man owns a farm which has a lake on it, and sells lots bordering the lake. In order to get to the lots he builds a road through his property to a public road. Has the owner of the lake the right to keep people not owning lots off the road?—M. G.

If this is a public highway all persons have a right to use it for any

legitimate purpose of travel. If it is a private right of way, no person has any right to use it other than the ones to whom the right has been given. In order to make it a public way it must have been accepted by the public authorities in some way.—J. R. R.

FERTILIZER.

There was nothing said in the contract about fertilizer. Who should pay for the fertilizer, the renter of the fields or the owner?—J. H.

There is no duty to furnish or pay for any fertilizer under such a contract, neither by the lessor nor the lessee.—J. R. R.

HUSBAND'S RIGHTS IN WIFE'S PROPERTY.

My farm was left to me by my first husband. I am now married a second time. I furnish the farm, tools, seed, taxes and our living. My husband will not buy my clothes nor even pay my doctor bill. I give him half of everything raised on the farm. He charges me for everything. He claims he has a right to everything. What can I do? He put a chattel mortgage on the horses and a cow. Has he a right to do this?—Mrs. G. N.

The husband has no rights in the wife's property, and cannot recover anything for work done on it in the absence of an express contract by her to pay for it. His mortgage or conveyance of her property is simply void.—J. R. R.

Watch Out for Hog Cholera

This Deadly Plague Threatens the Swine Population Again

By E. W. Gage

HOG cholera again is poking its head into pig growing sections. Seldom has there been as much interest in hogs as this season. Farmers have bred their sows to produce a monster pig crop. But, with cholera lurking around the corner—it's a long way from the farrowing pen to the stockyards. Profitable pork production in 1922 will require unusual care, skill and foresight.

We all know that when cholera lurks in the hog pen, it never rains, but pours, and when the real ghost of the pigpen comes it comes to stay until a pig percentage of the susceptible hogs are laid away on the cremating pile, or hidden at least four feet deep under quicklime and soil.

In 1833 cholera first appeared in Ohio, and it was a great pity that the plague was not stamped out, as was later, foot-and-mouth disease. Since then, hog cholera epidemics seem to come in cycles, appearing about every ten or fifteen years. Following a widespread, disastrous outbreak there always is a period of years marked because of relative freedom from it. Then when the swine-growing populace is lulled into a state of apparent but not real security, the fire of the highly infectious cholera flashes, and death reigns in the infected hog lots.

Wonderful progress has been made in combating hog cholera, but the pork producer must keep his eyes open. Losses have ranged anywhere from six up to forty and fifty hogs out of every one hundred possible porkers. In the old days, the only sure way of saving hogs was to slaughter them before the disease arrived. Today, happily, farmers are armed with better knowledge, based on a generation of

experience with the disease as well as the protective serum and virus combination.

In 1913, twenty-nine hogs to the hundred were lost; in 1914, thirteen; in 1915, about six; in 1916, 1917 and 1918 only about two, due probably to the effective use of modern methods of protection, especially the Dorset-Niles hog cholera serum. Today, losses are again on the increase.

Considering the increased number of hogs, more particularly in some sections, the last eight years the danger is greater than with a smaller hog population. But let the farmer prepare to meet the disease if it comes.

A few simple rules should be kept in mind:

1. Keep an eye out for the progress of the disease, especially in your own neighborhood. Watch the papers, local and farm press, and be in touch with your county agent.

2. Make arrangements so the hogs may be treated on quick notice; see your veterinarian; make provision for the ordering of serum, and virus. The best general policy is to have the serum and virus administered by a competent, trustworthy veterinarian. In some places, the farmer may, under certain conditions, treat his own hogs. That is a good thing, if rightly done. Remember, the virus is deadly poison.

3. Keep your hogs as healthy as possible by feeding an adequate, well-balanced ration. Be sure to have a good

mineral mixture, such as equal parts of salt, wood ashes, and bone meal, to each hundred pounds of which is added about one-half ounce of potassium iodide.

4. Kill off the lice, and drive out the worms.

5. Get your hogs out on clean pasture, preferably where hogs have not been kept for two years, and thus get away from the old hog lots, and other places of old infection. Disk and harrow the old lots every few weeks in the sunny season.

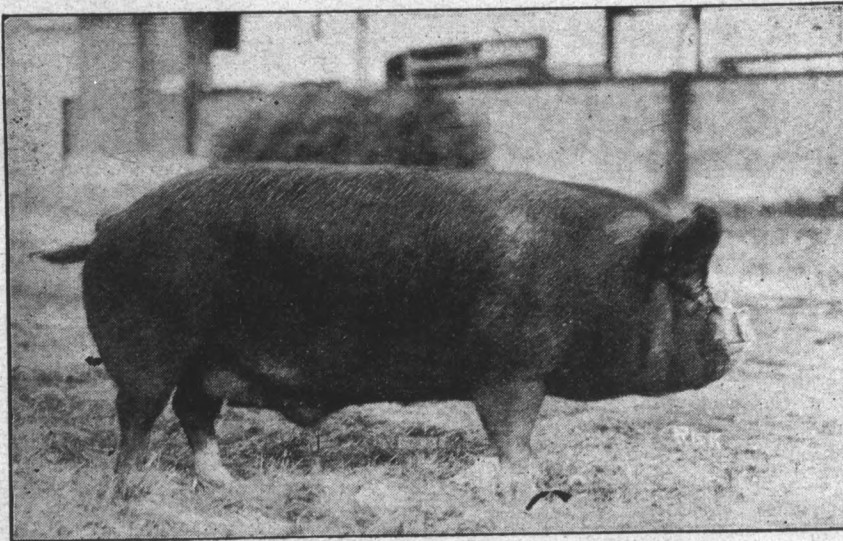
6. Arrange that your neighbors will notify you if the hogs get the cholera, you in turn to notify them if the disease breaks out on your premises.

7. Kill the pigeons that bother in the hog lots, tie up the dog, and keep the stray dogs off the farm. Be skeptical of the vagrant pig. These all may carry the infection. Do not forget the stray cats.

8. Be careful in changing work, or other interchange with the farm that has the disease. Also be careful not to have your hogs in fields adjoining the afflicted herds of others. Keep the hogs away from the public highway along which infection may spread, and remember the hogs are in a dangerous place when they run into a creek that originates up the line. Also, keep hogs away from lots adjoining railroads, where carlots pass, possibly to spread cholera.

9. Try to keep the flies down by keeping the manure hauled out to the fields. The horse flies may be carriers.

When the cholera gets in easy striking distance of your farm, figure out carefully if you can take the chance of severe loss. You owe something to your neighbor.



Youth Helps to Broaden Rural Life

This is Demonstrated by the Hemlock Handicraft and Garment Making Clubs

By Arthur H. Rice

THE new spirit of service and the changed viewpoint of country life that Boys' and Girls' Club work has brought to rural communities was ideally demonstrated last month at the achievement day program of the handicraft and garment-making clubs of the Hemlock village school in Saginaw county. Though it was a gala day in the social life of Hemlock, the event assumes a far more important aspect when viewed as another step forward in the renaissance of rural life. Interest in the work of their children brought together 250 country folk and villagers, from the ministers and the town aristocracy to the foreigners who work in the sugar beet fields.

The keen interest of the village centered upon the achievements of thirty-two boys and girls of their own neighborhood, the wholesome entertainment and social activity provided by the event, and the lesson in cooperation that parents and teachers learned while preparing for the occasion—each brought to the observing stranger a more definite idea of the great things that Boys' and

Girls' Club work is doing for the rural communities of Michigan.

Nor is that all! The greatest impression that the event made upon the visitor was a realization of the untold great good that the clubs are doing for each member. Particularly did he notice the more favorable attitude toward "living in the country" that had been brought into the lives of the children through the influence of club work.

The average farmer is apt to first view new projects from the financial standpoint, and in that respect the handicraft exhibit of the Hemlock Hustlers speaks for itself. Seventy-eight articles suitable for practical use

on the farm and in the home, such as wagon jacks, creepers for automobile repair work, hall trees, medicine chests, screens, clothes chests, foot stools, taberets, ladders and a score of smaller things, were made by eighteen boys of the school during their spare moments last winter. A conservative estimate by R. A. Turner, state club leader, places the value of the display at \$206.25. Many of the articles were made better than the average factory product and were equal to the display of a first-class manual training school class, in the opinion of the state club leader. Several of the boys in written stories told of the appreciation that parents or other relatives had expressed

over receiving a useful article that the boy had made with his own hands. One lad stated that he had partly paid his way through the Hemlock High School (ninth and tenth grades) by selling furniture that he had learned to make in the club.

The work of the twenty-four members of the girls' club also deserves a favorable verdict when judged from a mercenary angle, for during odd moments in the wintry months the young seamstresses had made seventy-six garments valued at \$192.38. Every piece of work was one which the girls were proud to wear to school. One little girl, who was watching a visitor as he examined the display of garments, stepped up to him and volunteered to show him the dresses that her big sister had remodeled from old

clothes, and as she did so she proudly added, "She made them for me to wear to school, aren't they nice!" And the visitor agreed.

Achievement day at Hemlock proved to city folks that the farmer knows just as much, and perhaps a little bit more, about the importance of practical education. (Con. on p. 610).



The Hemlock Handicraft Club and Some Samples of their Work which were Shown State Club Leader Turner.

LATE AGRICULTURAL NEWS

ON CHEAP FERTILIZERS.

SECRETARY A. M. LOOMIS, of the National Dairy Union is using the fact that nearly a half of the cottonseed meal produced is used as a fertilizer material because of its high nitrogen content, as an argument why dairymen should favor the prompt leasing of Muscle Shoals to the most likely applicant, who is, probably Henry Ford. "It is promised," says Mr. Loomis, "that the great cheap electric power at Muscle Shoals will produce air nitrogen for fertilizers, at a cost of about half what cottonseed meal now costs. Farmers who can get this cheap nitrate fertilizer will not buy cottonseed meal, and this will put all the cottonseed meal over into the dairy feed trade. The dairymen surely want it, if it can be bought at a price which they can afford to pay, and will use it at that price."

THE BIG NAVY.

WHEN entire congressional delegations from the middle west states, and more than sixty congressmen from strictly agricultural districts voiced their opposition to the so-called big navy, the naval officials woke up to the fact that there is a close relation between agriculture and the navy. Addressing the Farm Hands' Luncheon Club, Admiral Robert E. Coontz, head of the naval forces, said it had been the "experience of the ages that commerce and naval power are indissolubly united. The goodwill of foreign nations cannot be obtained if this country does not maintain a navy of sufficient size to guarantee the sovereignty of this country and the rights of our citizens abroad. We cannot export or import without ships. Ships cannot bring us foreign trade without first obtaining the goodwill of the foreign nations."

FOR STANDARD CONTAINERS.

THE United States standard container bill, whose enactment is being urged by the American Farm Bureau Federation, is designed to eliminate fraud and lower package costs. Even if many sizes were not fraudulent, it is claimed that we have too many styles and sizes of containers on the market. They are confusing to both buyer and seller; they complicate the matter of quotations and they constitute an unnecessary tax on the fruit and vegetable industry.

MICHIGAN CASH CROPS.

POTATOES are the only cash crop grown in nearly every county in Michigan on a commercial basis, statistics compiled by the United States Bureau of Markets for 1921 reveal. Montcalm county was the heaviest shipper, shipping 3,114 cars. Mecosta was second with 1,173 cars and Oscoda third with 1,114 cars. Nearly all the other high-producing counties were in northern Michigan.

Barry county led in shipments on onions, moving 171 cars during the season. Allegan was second with 141 and Kent third with ninety.

If the federal records are accurate, Kalamazoo county is no longer the celery center of the state. Muskegon forged ahead with 276 cars shipped while Kalamazoo and Ottawa were tied with 196 cars each. Van Buren was next with 184 cars.

In fruit shipments counties bordering on Lake Michigan led in all varieties. Berrien was first in apples, shipping 1,247 cars; Oceana second with 868 cars; Van Buren third with 675

cars; Mason fourth with 553 cars and Grand Traverse fifth with 410 cars.

Mason county was first in peach shipments, moving forty-two cars; Oceana was second with thirty-eight cars. Berrien was first with pears, strawberries and cantaloupes. Van Buren was first in grapes and Grand Traverse in cherries. Kent led in plum shipments.

The Thumb District of Michigan held first place in shipment of beans. Sanilac county led with 899 cars, Huron second with 839 and Saginaw third with 510 cars. Central Michigan swung in fourth place with Gratiot shipping 486 cars.

LAND-CLEARING SCHOOLS IN MENOMINEE.

THE first land-clearing school in Iron county was held near Wallace on May 2, and was attended by about two hundred farmers, it is reported. A field well supplied with white pine stumps was selected for the school of instruction. The farmers were divided into squads and worked on the stump-puller crew, the dynamite crew and the piler crew in turn. Two tractors were used for demonstrations in skidding, piling and breaking. A large number of school children were present to witness the work, school having been let out for the purpose. It is expected that these children will get ideas that will stick until their mature years, when they, too, will be directly interested in this problem of land-clearing. The second school was held at Stephenson on May 3, where the field selected was one recently cleared and covered with green hardwood stumps. Visitors at the schools included the general dairy agent of the Chicago &

Northwestern Railroad and a representative of the Ford interests. There was also a demonstration of rock-breaking by the mud-capping method. For this purpose a granite boulder weighing more than a ton was chosen, and a single charge reduced it to small fragments which were easily removed.

A LIVE STOCK LOAN BILL.

A NEW bill introduced by Senator Arthur Capper, and prepared under the direction of Eugene Meyer, Jr., director of the War Finance Corporation, is designed to meet the needs of the live stock industry. It is to be known as the "Federal Live Stock Act."

This bill provides that the Federal Farm Loan Board shall divide the United States into not less than five and not more than ten live stock districts, to be determined with due regard to the needs of the live stock industry. Upon the application of five or more eligible live stock loan companies in any one live stock district, the Federal Farm Loan Board shall proceed to organize a federal live stock finance corporation in the district.

The Federal Live Stock Finance Corporation shall be under control of seven directors, three appointed by the Federal Farm Loan Board and four elected by the member corporations. All four directors must be residents of the live stock district in which the corporation is located. The capital stock of each finance corporation is to be sold to live stock loan companies, and the secretary of the treasury is required to subscribe to the capital stock a sum equal to twenty-five per cent of the amount subscribed.

No live stock finance corporation can begin business with a subscribed capital of less than \$1,000,000 or with a paid up capital of less than \$500,000.

The corporation is given power to rediscount eligible live stock paper; to make loans and advances to its member corporations on their promissory notes secured by eligible live stock paper; to buy and sell government bonds; to act as a depository of government funds; and to act as the fiscal agent of the War Finance Corporation.

BOOK ON MICHIGAN AGRICULTURE.

THE Macmillan Company, of New York, is bringing out the "Rural State and Province Series," edited by L. H. Bailey, formerly connected with the Michigan Agricultural College and later Dean of the College of Agriculture of Cornell University. The series is designed to cover eventually each state of the Union and each province of Canada. The volume on "Rural New York," by E. O. Fippin, of Cornell University, has recently appeared, and that on "Rural Michigan," by L. A. Chase, of the Northern State Normal School, Marquette, will soon appear. The volume on Michigan will deal with the physiographical conditions of Michigan as related to its agriculture, the rural population, game, live stock, crops, rural organizations, transportation, markets, life and social conditions, education and development. The historical aspect of rural life is emphasized along with the present situation. There will also be statistical tables and photographs.

POTATO COMPETITION.

POSSIBLE competition from potato growers in Montana and North Dakota will be investigated by D. L. Hagerman, of Grand Rapids, agricultural agent for the Pennsylvania Railroad, who has gone to the western states. Potatoes have been introduced into these two states as a cash crop in almost alarming proportions and seriousness of the situation is reflected in the heavy movement out of that region this past year. The west also will be studied from the standpoint of a possible market for Michigan certified seed.

A TUBERCULOSIS CAMPAIGN.

OTTAWA county farmers are taking fresh interest in the campaign to eradicate bovine tuberculosis from their herds and in all probability many of them will back a petition to the board of supervisors urging it to finance the work and make possible state and federal supervision as the work can be pushed. It is estimated there are 34,000 head of cattle in the county.

A SUBSTITUTE FOR THE WAR FINANCE CORPORATION.

THE National Farmers' Union is backing a rural credit bill introduced by Senator Norbeck, of South Dakota, which creates a corporation known as the National Farmers' Finance Union, to have an existence of twenty-five years. The capital stock of this union is to be \$200,000,000, which would be provided by the government.

The Farmers' Finance Union is to succeed the War Finance Corporation, taking over the capital stock of the corporation, and having transferred to it all the assets of the corporation.



Wednesday, May 10.

TWO men caught robbing a pheasant's nest in Belle Isle, Detroit, were arrested and fined \$100 each. Eighty-one per cent of the school children in the first grade in Detroit were found abnormal in some way. Exports of automobile products increased nearly thirty-nine per cent over those of February.

Thursday, May 11.

IN the Elek River Valley of the Russian famine district, over ten thousand bodies have been washed ashore by spring floods. Seventy thousand people are homeless in Mississippi and Louisiana as a result of the Mississippi River flood. Secretary of Agriculture Wallace urges the passage of the Capper conservation bill for the protection of forests. Only 137,000,000 acres of virgin timber are left out of an original 822,000,000 acres.

Friday, May 12.

THE Russian Soviet government demands a one billion dollar loan of the allies. Twenty-eight thoroughbred race horses, valued at \$250,000 were burned to death in a race track fire at Lexington, Ky. President Harding is standing "pat" on his attitude that taxes must be levied to take care of the soldiers' bonus.

Saturday, May 13.

THE famous passion play of Oberammergau is being presented for the first time in twelve years. This play has been presented at intervals for three hundred years. The state

afety department is performing the combined functions of the old state police, pure food and drug departments and fire marshal and oil inspection offices at a great saving in cost.

Sunday, May 14.

THE teacher who wears bobbed hair is ruled out of seven New York towns by a unanimous vote of the school superintendents. Mr. and Mrs. C. H. Sinclair, of Chicago, formerly of Port Huron, have a wedding cake that is fifty years old. It was refrosted for their son's wedding in 1921 and again for their own golden wedding anniversary this year.

Monday, May 15.

THE entire Detroit street car system is now being operated by the city. It is the largest municipal street car system in the world. The railroads of the country have given orders for \$40,000,000 worth of equipment during the last thirty days. United States corn is now reaching adults in the Russian famine district through the American Relief Commission.

Tuesday, May 16.

EIGHT men have been indicted, fifteen more arrested and four more killed as a result of the Chicago labor war. France has asked the United States to participate in the proposed international commission to investigate the Russian situation. Germany's best seller is the memoirs of Crown Prince Wilhelm which is an advance of two hundred thousand copies.

Francisco Farm Notes

By P. P. Pope

SPRING time is clean-up time, but sometimes it is hard to find the time. Such seems to be the case with us at the present writing. Due to the demand for outside work which has required more or less of our personal attention during the past few years, we find a greater accumulation of odd jobs than usual about the farm this spring. Various factors, such as unfavorable weather and insufficient help have contributed to delay in getting things done, and now the heaviest of the field work is upon us. But the tractor makes light of it and is working fine, but it has one great drawback—it hasn't any brains. It will not work one bit unless you are right with it. It doesn't even



know enough to turn at the end of the field, or stop unless you are right there to turn or stop it. It doesn't mind the word at all. For these and numerous other reasons it has given the most satisfaction when the owner was the engineer. No doubt many of you tractor operators who read these lines have learned as much. So when a customer comes for a pig, or another bowls in from another county to visit or look over the cattle, or the typesetter is waiting for this sort of material, or some letters must beat the mail carrier to the box, the tractor just sands idly by. A friend suggests that we might do this sort of stuff nights and rainy days. So we are wondering if we could actually keep up with all the odds and ends if all the time were nights and rainy days. The manure spreader doesn't choose a rainy day to break a drive chain and send one scurrying off to town for repairs, with the town folks still using war-time clocks and saving the late afternoon hours for sport, there is little use of making a trip to town after supper except to see the movies—it is better to run the tractor—the pigs and the cattle do not always choose bad weather to demand some special attention, so the overseer of affairs goes on high gear and such is life on the farm in the spring.

We do not believe in taking too much time to plan or to complain. When a mountain of work seems to loom up on all sides and numerous jobs press for attention at one time, and the feeling inside corresponds to that of a torpedo with the fuse burned short, it is good advice to "spit on the fuse," concentrate on one task at a time and eliminate it. It is then often surprising how rapidly one of those mountains after another will dwindle away and the satisfaction of work well done be the compensation.

KEEP THE BEES COOL.

SOON it will be so warm in the bee hives that the busy workers will find it necessary to idle away their hours on the outside of the hives in order to avoid the excessive heat of the interior. One bee man suggests this remedy: He tips the hive backward so that the front is raised about one inch from the baseboard. He uses a tapering splinter or wedge under each side to support the hive. Another method is to use hives with a reversible bottom board. This furnishes either a narrow or wide entrance as may be desired. In this connection it is

important to locate the hives in a shady place.

PLOW EARLY FOR SOY-BEANS.

ALTHOUGH soy-beans should not be planted until the ground is thoroughly warmed up, and the danger of frost is past, the plowing should be done early to give the soil opportunity to settle down and make a good seed-bed. This condition is improved by giving the field extra harrowing until it is time to plant. The easiest, cheapest and most efficient time to do thorough cultivation is before the crop is planted.

BUG MEN TO ATTACK GRASS-HOPPER.

AT a recent conference of entomologists from Canada and the United States, plans were completed for carrying out a series of experiments to determine the most effective poisoned baits for the various species of grasshoppers which infect different regions. An international map is also to be drawn showing the grasshopper conditions in both countries. This may be used as a future record to give the scientists a closer knowledge of probable future outbreaks of this pest.

VARIATION IN LIMESTONE.

EXPERIMENTERS in Ohio are noting that commercial hydrated lime sold in that state for agricultural purposes, varies widely in its neutralizing power. Tests this year show the effectiveness of these limes to range from 101 to 162. It would take a ton and a quarter of the brand testing 162 to do as much good to the soil as would a ton of brand testing 101. It is advisable to consult the county agent where there is any question regarding the strength of lime.

CONTROLLING WEEDS IN THE CORN FIELD.

TO prevent weeds taking their large toll from the corn crop, it is important that measures be instituted early in order that the enemies of the corn plant may be kept in subjection at the least possible cost.

The main way of keeping down the weeds is by cultural operations. The land should be prepared some time ahead of planting date and the weed seeds be given an opportunity to germinate so that the young plants may be destroyed by discing or harrowing just before the corn is planted. The harrow should again be used after the corn is in, and perhaps a second time before the plants are large enough to cultivate.

While such culture may destroy now and then a hill of the corn, this damage is many times over-balanced by the benefits in the way of keeping down weeds and warming up the soil for the more rapid growth of the corn.

Many successful growers adjust their cultivators so that the dirt is thrown away from the row during the first cultivation when the plants are small and later reverse the process and work the soil toward the row, thus covering up any small weeds that may have started and still keep the soil fairly level.

Walt Mason Sang It: "Oh, every fly that skips our swatters will have five million sons and daughters, and countless first and second cousins, and aunts and uncles, scores and dozens, and fifty-seven billion nieces; so knock the blamed thing all to pieces!"

Here's Good Advice: Relieve Your Fatigue With Sleep. Avoid Stimulants

THERE is nothing in the world so reconstructive as sound, refreshing sleep. During sleep the system rids itself of the fatigue poisons that have accumulated during the day. The finished elements in the food are taken up by the various tissues that require rebuilding nutriment.

It is important that you get plenty of health-bringing sleep. Anything that interferes with your sleep hampers and hinders you—mentally and physically.

A common cause of physical weakness and mental depression is the reaction following over-stimulation caused by the drug, caffeine, and other elements found in both coffee and tea.

If you have an idea that coffee or tea drinking may be injurious to your health, why not stop it for a week or so, and drink delicious, fragrant Postum instead.

Postum is a rich, golden-brown, pure cereal beverage. It contains no harmful elements of any kind. You can drink Postum as many times a day as you or the children desire a grateful, refreshing beverage.

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

Postum for Health "There's a Reason"

Mount Gilead CIDER PRESSES
draw the Business

Big Money made with M-G Cider Presses. Small investment. Quick, clean profits with little labor and expense. Demand for cider greater than ever. Install the reliable

Mount Gilead Hydraulic Cider Press
Standard for 44 years. Largest juice yield. Easy to operate. Fully guaranteed. Sizes from 10 to 460 bbls. daily. Complete outfits ready to ship. Also Hand Power Presses for Cider, Grape Juice, Fruits, etc., and a full line of accessories such as Juice Evaporators, Pasteurizers, Vinegar Generators, etc. Write for catalog.

HYDRAULIC PRESS MFG. CO.
198 Lincoln Ave. Mount Gilead, Ohio

AGAIN I've Smashed Profiteers

Protect your neglected buildings. Paint and roof now. My spring sale is on now full blast, and my prices are way down to 1914 figures. I've dealt another blow to profiteers.

GET MY FREE BOOK
Roofing, fencing and paint of the highest quality for which Jim Brown has become famous among 600,000 customers. Prices that will astonish you. Costs nothing to get my book of proof. Write today.

Address: Jim Brown, President
The Brown Fence & Wire Co., Dept. B495 Cleveland, O.

Fish Bite like hungry wolves, any season, if you bait with **Magic-Fish-Lure**. Best Fish Bait ever discovered. Keeps you busy pulling them out. \$1. Box Free to introduce our new fish and animal traps. Write us to-day.

J. F. GREGORY, Dept. 71, Lebanon, Mo.

Cyclone Lawn Fence

Your premises enclosed with Cyclone Lawn Fence reflect your thrift and progressiveness; also your pride in your home.

Affords effective property protection against outsiders. Made of heavy galvanized wire in handsome designs; strong and durable. For complete satisfaction and economy be sure to buy Cyclone. Write Dept. F500 for our 1922 catalog.

Cyclone Fence Company
Waukegan, Illinois

SEE YOUR DEALER

THE KANT SLIP WIRE SPLICE
ONE CENT A SPLICE

Will repair broken wire without splicing in a piece. Great for taking up slack in loose fence. Used on either barbed or single strand. No waste. Easy to apply. If your dealer can not supply you order direct. \$1 Per hundred postpaid.

The Currier Mfg. Co.
402 Bangor Bldg., Cleveland, O.

GALLOWAY'S BARGAINS
Regular Eye Openers

Gal. loway blasts the way to normal times with low prices. Get the big Galloway catalog before you buy an engine, separator, sprayer, cash or credit, fence, farm machinery or household necessities. Save one-fourth to one-half. Startling bargains offered. Prices that are a sensation in merchandise world. Satisfaction guaranteed. Write for catalog today.

WM. GALLOWAY COMPANY
Dept. 157 Waterloo, Iowa

Agricultural Lime High calcium hydrate lime in 50 lb. paper bags, in car lots of 20 tons or more. Delivered, price promptly mailed on request.

Northern Lime & Stone Co., Petoskey, Mich.

Mention The Michigan Farmer When Writing Advertisers

GRAPES and other small fruits should be sprayed with Pyrox



Currents, berries, plums, cherries—all are kept free from bugs, rot, mildew, by Pyrox. Try it. It combines a powerful fungicide with a deadly poison. It invigorates the foliage; holds the fruit on; gives it color and finish.

Read what users say in the Pyrox Book

At one cost for Pyrox, one cost for labor, you get triple crop insurance. It mixes easily, sprays through finest nozzle without clogging; sticks like paint on the foliage. The improved formula, an evolution of 23 years, makes Pyrox better than ever. Try it on all garden crops.

Write today for the free Pyrox Book. If your dealer does not have Pyrox, tell us about it.

Bowker Insecticide Company
49 Chambers St., New York City
Baltimore, Md. Chicago, Ill.

Pyrox

the powerful
triple-duty spray

\$1000 Guaranteed Rat-Killer

NOT A POISON!

Newly discovered virus guaranteed to wipe out every rat and mouse, but absolutely harmless to poultry, live stock, cats, dogs or humans. Destroys them by infecting them with rat-cholera, a spreading plague that gets them *ALL*.

THEY DIE OUTSIDE!

No odors from dead rats. No traps or fuss. And the cost is a trifle with results guaranteed with \$1,000 bond.



GET YOURS FREE!

To introduce \$1,000

RAT KILLER in your locality we'll pay you 100%

profit and give you yours FREE.

Send only \$1 for 3 Dollar-size triple strength bottles. Use one free, sell the other 2 to your neighbors for \$2. We pay postage.

SEND NO MONEY! If you prefer we ship all three Dollar-bottles C. O. D. by mail for only \$1 and postage. Each dollar bottle guaranteed to clear your house or barn. Don't wait, write today!

GARFIELD LABORATORIES

Dept. 141 3935 W. Washington Blvd.

CHICAGO, ILLINOIS

Stump Puller \$10 Only

Easy to own the famous KIRSTIN One-Man Stump Puller. Pays for itself as you use it. You, without extra help, can pull large stumps easier, quicker, cheaper. Send now for low prices, easy terms, and demonstration. **FREE** Write today for 80 page Land Clearing Book. **A. J. KIRSTIN CO.** 318 Lud St., Escanaba, Michigan.

Fruit Packages and Quart Berry Baskets
Highest quality. Attractive prices. Made up of white wood. This is our specialty. Write for our prices. **THE H. J. ALEXANDER CO.,** Minerva, Ohio.

Horticulture

SPRAYING BUSH FRUITS.

IN the handling of bush fruits, it has not been found as practical to control diseases attacking these plants by spraying as it is for similar troubles on tree fruits. The general practice is to cut out and burn all old canes as soon as the fruit has been removed. Other diseased canes may well be taken out upon the first appearance of the ailments. It is wise to select varieties that are resistant to diseases.

Caterpillars on the leaves of raspberries and blackberries can be controlled with a spray of arsenate of lead. Use one pound of the powdered arsenate to fifty gallons of water.

Mildew, which appears as a grayish powdery fungus is controlled by an application of potassium sulphide used at the rate of one ounce of the sulphide to two or three gallons of water.

Plant lice are controlled by nicotine sulphate. This should be applied, however, before the leaves curl, since this folding of the leaves prevents the spray from reaching the lice.

GROWING MELONS FOR HOME USE.

WATERMELONS and muskmelons are relished by many people, and more farmers would grow a small patch for home use if they were always sure of getting a good crop. The following method of growing a small patch is a good one:

It is a good plan to select a place where the soil is well drained and of a sandy nature, preferably near the house. Fertilizer or manure should be mixed in the hills so the ground will be in good condition. The hills can be about eight feet apart, and in the center of each hill place a three-inch tile on end with about five inches protruding above the ground. Now plant the melon seeds in a circle around the tiles, keeping about four inches from them. When they come up and get about four inches high they can be thinned down to four or five good healthy plants to a hill.

Of course, the tiles are put in the hill so the melons can be watered during the dry weather. If you notice the ground getting dry to a considerable depth, fill the tiles with water once a day. The water will soak out of the tiles and come up to the surface around the outside, making the ground moist right where the roots are, and in the driest weather they will grow right along. When the vines get big and the young melons start to set in, you can fill the tiles twice a day, preferably in the morning and evening.

We have grown a small patch of melons by the above method for the last two years and we got splendid results each time.—W. F. Diegel.

NITRATE OF SODA FOR EARLY GARDEN.

FEW understand that available nitrogen very early for starting the garden off quickly has a value far in excess of its natural value. In the late summer there is plenty of available nitrogen in the soil but it is as soluble in water as sugar and how much sweetness would you have in the surface soil by spring after the fall and winter rains soaked it out no matter how much sugar you should distribute in late summer. You would have to apply it in the spring. The same is true of nitrogen. Bacteria make nitrogen available in the warm weather, but plants need it sooner than that. Early garden will be given a good start by an application of ni-

trate of soda, which contains nitrogen all ready for use. You do not need to scatter it all over the garden but just along the rows. A pound to a hundred feet of row will do nicely. Sprinkle it on the ground when pulverized or mix with water and soak the soil in the row with that. If pulverized nitrate is used stir it down a little.—Agnes Hilco.

WIND POWER.

HAVING learned that William W. Simcoe was installing a wind-propelled electric power plant on his farm in Montcalm county, we called last week while on a trip through that section, to inspect the plant.

Several years ago, such a plant was in operation in Wisconsin, and last season and the year before a number of mills equipped to generate electricity were erected in the central corn belt states. So far as we had been able to learn, these mills were rendering satisfactory service. It was natural, therefore, that we should be interested in Mr. Simcoe's venture.

The great disadvantage of using wind as a source of power has been its uncertainty. When power was needed at definite times, the wind could not be depended upon. Plans which included the use of such power always had to be made with a proviso. The disposition of the atmosphere was a condition in making out programs of work.

But this disadvantage has been very largely, if not entirely, overcome by transforming the energy developed by the wind wheel into electrical power. This power can be stored in a series of storage batteries and then used when the operator needs it.

The design of these plants is simple. A large fourteen-foot wind wheel, op-



Erecting Wind-propelled Electric Plant on Farm of William Simcoe.

erating through a step-up gear of one to forty, propels an electric generator from which the electric current is carried by wires through a control board conveniently located in the residence to a series of batteries. The current is then taken from these batteries for the various lighting or power purposes for which the operator wishes to use it. This battery overcomes the great disadvantage which has prevented a wider use of wind power in the past.

According to parties who have tried these mills in other sections, little attention is needed in operating an equipment of this kind. About the only requirements at the power end of the plant is oiling once a year. The majority of the mills are made with a

large gear case in which a gallon of machine oil can be poured. This is sufficient to keep these gears properly lubricated for at least twelve months. The remainder of the equipment, being standard, needs the same attention that is given to the average storage battery outfit.

Naturally the big advantage offered is the light cost of upkeep. No fuel is required and there is an abundance of power, although at times it might be a little better distributed. In this respect, however, the United States government has furnished data covering a single year showing that the longest period in that year during which the wind did not blow over six miles per hour in the state of Michigan was thirty-six hours.

No doubt this type of farm power will be given a thorough test by farmers. Should its advantages, which now seem so apparent, prove out, then it is probable that in the future this unlimited sources of energy will be drawn upon more and more to serve the purposes of rural people. It is possible that with further development of the storage battery the energy from the moving atmosphere will be used not only for lighting and motor power for small machinery, but possibly for heating and field work.

YOUTH HELPS TO BROADEN RURAL LIFE.

(Continued from page 607).

The proper use of tools and sewing equipment that the boys and girls have learned through experience in club work will be a big factor in their future, for each has learned to be useful and to rely upon his own ability.

Added to the financial and educational value, is the social side of club work. "Busy hands keep the Tempter away"—while the young folks are busy making something useful they are not getting into mischief. Each club is under the direction of a local leader who has been chosen not merely for his ability to supervise but because of his qualifications to be a moral example for young people.

The evening program at Hemlock's achievement day was one that would be a credit to a high school literary society. From the address of welcome by the president of the girls' club, Miss Delia Woodhull, to the closing address by the superintendent of the school, everything was conducted according to the established rules of parliamentary order. A burlesque on hat styles, presented by about fifteen of the smaller girls of the schools, was deemed such a novel stunt that it was repeated upon request at the program of the Saginaw county achievement day, while members of eighty-three others Boys' and Girls' clubs looked and laughed.

An address by Mrs. Pearl Watson, who represented the parents of the pupils, left no doubt in the minds of her audience but that the community approved and appreciated club work for its children. The reply of the superintendent of the school showed that parents and teachers had learned to work in harmony in rural districts in Saginaw county. Saginaw county, by the way, is leading the state in its rural parent-teacher movement. The occasion provided an opportunity for the state club leader, R. A. Turner, his assistant, Miss Elda Robb, and the county club leader, Arthur L. Strang, to encourage the community in its support of club work and to bring visions of future progress.

As the eyes of Saginaw county were focused on Hemlock and the achievement of its boys and girls, is it to be doubted that these children and their parents have learned that their duty is to stay where they are, to carry on the uplifting of village life and to further the progress of agriculture.

A Year of Cow-Testing Work

The Cow-Tester Has a Dual Job

By J. H. Mathieson

WHEN we started the year we only had a half association and sales and tuberculin tests have made it necessary for us to take in new dairymen right along, the majority of whom have not finished their yearly record yet. Many of those cows have a very good start, one of the best ones being owned by Mr. E. M. Stewart, of Inkster. She has been tested six months and has in that time produced 14,422 pounds of milk and 454.4 pounds of butter-fat.

The averages for four highest herds for the year are as follows:

	Lbs.	Lbs.
	Milk	B.fat.
Martin McLaulin, 6 cows	1216.2	405.7
Mark Lathers, 13 cows...	1078.9	370.6
Perry Hix, 6 cows.....	1012.5	363.6
Wolfram Bros., 13 cows	929.9	325.5

In the last year's work, it has shown clearly how much value it has been to have plenty of alfalfa hay. We also find that the best results have been from cows that have been dry for

get calves that later would show that they know why they stay in the barn. We do not need to go to other states in order to get a good bull. He will not gain on the train and we have plenty of good bred bull calves right here in Wayne county. We have several of that kind in the association ready for service.

Lately quite a lot of gluten has been sold to feed in addition to the home-grown grain when cows are on pasture. It should be remembered that cottonseed and gluten are heating and if an udder disturbance, such as caked udder, is present they should be taken from the ration, as these feeds will tend to aggravate the trouble. I would not advise feeding both of them in the ration at the same time.

Many farmers prefer to buy a balanced ration but as a rule it pays to mix your own ration because the dealer charges too much for that work. Run your dairy as a business and be a

The Following Cows Produced Better than 400 Pounds of Butter-fat.

Owner and Name of Cow.	Lbs. of B.Fat.	Value of Products.	Cost of Feed.	Value Above Feed Cost.
Martin McLaulin, Treva M. P. K.....	626.0	\$431.85	\$139.08	\$292.77
Martin McLaulin, Gerben P. K.....	598.3	393.03	129.57	263.46
Mark Lathers, Beatrice W. P.....	498.1	323.18	109.05	214.13
Mark Lathers, Canary G. K.....	487.5	304.86	110.13	194.73
Mark Lathers, Helen T. DeK.....	480.4	294.44	111.24	183.20
Martin McLaulin, Mary B. P.....	465.0	300.22	113.28	186.94
Wolfram Bros., Hazel DeK.....	453.8	318.42	104.98	213.44
Perry Hix, Daisy.....	451.9	286.12	91.68	194.44
Buena Vista Farm, Segis L. K.....	451.6	292.62	104.99	187.63
Wolfram Bros., Karoline DeK.....	448.9	300.63	101.91	198.72
Buena Vista Farm, Jane Esparanza..	441.4	280.32	99.35	180.97
Wolfram Bros., Hartog DeK.....	437.6	271.89	80.45	191.44
Buena Vista Farm, Lady Endora P.D.K.	417.9	261.74	76.83	184.91

about eight weeks. It is a fact that a high-producing cow often gives more mineral matter in the milk she produces than she gets in the ration fed. Therefore, she usually reaches the end of her lactation period with her supply of phosphorus and calcium depleted and the ration fed during the dry period is not sufficient to restore them if the dry period is so short, unless she is fed a ration which makes it possible for her to assimilate liberal quantities of both elements. There is no doubt that a cow's milk yield may be markedly influenced by the nutriment she receives seven to eight weeks before her calf is born. Feed your cow right when she is dry and you will have less calving trouble and it will be easier to get her with calf again. This is one reason why we like to start the Cow-testing Association work when the cows are dry.

It is sometimes difficult to show results of the work in a short time, in fact, it often takes several months before it shows good results. Sometimes the farmer doesn't like the suggestions for changing the rations and it occasionally happens that an old farmer who is feeding ground rye, corn-and-cob meal, and timothy hay says: "Do you think you can teach me to feed a cow? I fed cows before you were born." Those are the places where it takes time to show results. Real cow-testing is a test of cow and man both. It is up to the tester to show a profit but he can't do it if the farmer won't take his advice.

There are too many farmers in Wayne county, even in 1922, who have a grade bull in their barns used for breeding, and raise calves from him. We need several bull associations here in this county. We would be money ahead and save feed if we had one good bull in place of six or seven grade bulls in small herds. Then we would

specialist. It pays better to do one thing right than several wrong.

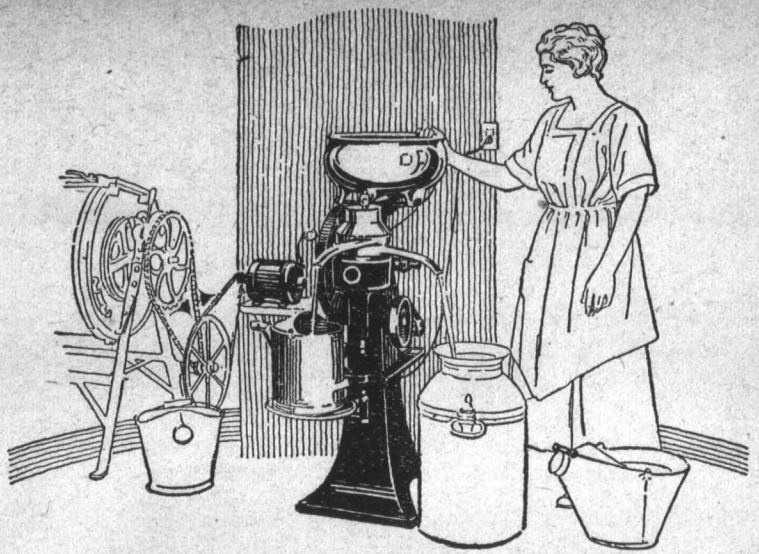
We want to thank Mr. O. I. Gregg, county agent, and Mr. Mark Lathers, secretary, for their help with the past year's work.

SWAT THE POOR COW, BUT FEED THE GOOD ONE.

DAIRYMEN are now realizing more keenly than ever the necessity of getting rid of the cows that are scarcely paying their board. These cows place too heavy a tax upon the herd to make the dairying go as it should. The policy being adopted by many is to eliminate these slackers and then feed the better cows a ration that will enable them to produce greater profits. This enables the dairyman to get by on a less amount of labor and at the same time increases the net profits. The plan is also commendable because it does not increase the surplus of milk being thrown upon the market. Nothing compares to a good cow-tester in helping get the herd in the way of bringing profits.

COOLING THE MILK.

THE coming of warm days has made it necessary for the dairyman who is supplying whole milk to the trade to go over his equipment for cooling the product before it is delivered to the transportation companies. It is important that the milk be reduced in temperature before it starts on its journey to market. If it is warm, there is a tendency to churn the milk and make it lumpy as a result of the action in transit. By being properly cooled and having the cans filled to capacity and protected from the sun's rays, the losses from rejected milk will be reduced to a minimum.



You Don't Pay For a De Laval It Pays For Itself

A truer statement was never made. Ask any one of the millions of De Laval users and they will invariably reply, "My De Laval doesn't owe me a cent. It paid for itself in less than a year, and ever since has been making me money."

Why? Because the minute you start using a De Laval you get something to sell for cash—cream; and in addition you get skim-milk to grow into another crop of calves, pigs and chickens. Two sources of profit, and a steady cash income every day.

Even if you don't own a De Laval you are probably paying for one anyway—especially if you are using a cheap, inferior or badly worn separator, or are skimming by hand—in the cream that is being lost. No other method of separating cream from milk is so efficient, easy and economical in the long run as the De Laval.

There is a De Laval Separator just right for you, no matter if you have one or a thousand cows. Furnished with hand, power, electric or steam turbine drive. See your De Laval Agent now or write us about getting one.

The De Laval Separator Co.

NEW YORK CHICAGO SAN FRANCISCO
165 Broadway 29 E. Madison St. 61 Beale St.

Sooner or later you will use a

De Laval

Cream Separator and Milker

World's Best Roofing
at Factory Prices

"Reo" Claster Metal Shingles, V-Crimp, Corrugated, Standing Seam, Painted or Galvanized Roofings, Siding, Wallboard, Paints, etc., direct to you at Rock-Bottom Factory Prices. Save money—get better quality and lasting satisfaction.

Edwards "Reo" Metal Shingles
have great durability—many customers report 15 and 20 years' service. Guaranteed fire and lightning proof.

Free Roofing Book
Get our wonderfully low prices and free samples. We sell direct to you and save you all in-between dealer's profits. Ask for Book No. 167

LOW PRICED GARAGES
Lowest prices on Ready-Made Fire-Proof Steel Garages. Set up any place. Send postal for Garage Book, showing styles.

THE EDWARDS MFG. CO.
617-567 Pike St. Cincinnati, O.

FREE Samples & Roofing Book

\$139 NOW BUYS

ROSS
Ensilage Cutters

The leader among cutters, 72 years' reputation built into them. Some after 50 years of service still in use. Thousands of owners testify that Ross cutters are 25 per cent cheaper to operate, make 25 per cent better ensilage, have larger capacity, more improvements.

Ross cutters at present low prices are biggest bargain of any cutter made. Our easy terms—no cash, no deposit, no interest means it's cheaper to own a Ross than rent a cutter or pay to have silo filled. Write today for terms, etc.

THE E. W. ROSS CO.
Dept. 522 Springfield, Ohio

FREE For 30 Days
as a special introduction offer to establish Ross cutters in every community, we make a special proposition of knife grinder pictured above or choice of five other articles free to first buyer in each community. Write today.

Open Lights Start Fires!

DELTA No. 10 HAND LANTERN

Here's a lantern that burns continuously by the hour. Gives three times more light than a flashlight. Safe as daylight. Can use kerosene, oil, grease, dirt or odor. 7 1/2 in. high.

Strong steel case. Ball and grid handles. Reflector heavily silver plated. Snap switch at back. Finished in baked red enamel nickel trimmings. Uses two ordinary dry batteries. At your dealer or sent prepaid for \$2.75 less batteries.

Delta Electric Company, Delta Block, Marion, Ind.

Hoosier
WOOD SILO

The wise, careful farmer builds the Hoosier silo not because they are the cheapest but because they are the best. Perfect anchoring system, convenient doors, strong and substantial door frame. Choice of Yellow Pine or Oregon Fir Standard Lumber for Wood Silo construction.

Roofs, Chute, Paint, Hollow Building Tile, Glazed Tile Silos

We also manufacture a complete line of roofs chute, paint for all farm buildings, glazed building tile and glazed tile silos. Prices reduced to pre-war level. Write for literature and prices before buying.

Hoosier Silo Co. Dept. M99, Albany, Ind.

Cheer Up!
TOWER'S FISH BRAND REFLEX SLICKER \$4.50
knocks rainy day gloom — into a cocked hat —

TOWER'S FISH BRAND

A.J. TOWER CO.
BOSTON

BOOK ON DOG DISEASES And How to Feed

Mailed free to any address by the Author

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

WITTE
Log Saw

OUR BEST AND BIGGEST OUTFIT \$65.00
Save \$15 to \$50—Big, complete, ready to use—Powerful Engine—Lever Control—Lifetime Guarantee Catalog Free.

WITTE ENGINE WORKS
From Pittsburgh \$70
2198 Oakland Avenue, Kansas City, Missouri
2198 Empire Building, Pittsburgh, Pennsylvania

MILK BOTTLE CAPS

WILL FIT ALL STANDARD MILK BOTTLES
PARAFFINED AND PRINTED RED LIKE DESIGN.
BOX CONTAINS 1750 LIP CAPS or 2000 WITHOUT LIP. PARCEL POST PREPAID—ORDER A BOX NOW. A BOX THE AMERICAN MILK CAP CO. 5 NORTHWESTERN STATION, DETROIT, MICH.

BINDER TWINE

Get our low 1922 price. Club orders and car lots our specialty. Farmer Agents Wanted. Samples and circular free. **THEO. BURT & SONS, Melrose, Ohio.**

Rapid Radio Development

The First Article of Our New Radio Department

By Stewart Seeley

IN 1897, just twenty-five years ago, Marconi made the remark in reply to a query that if sufficient power were obtainable and a large enough antenna erected it might be possible to transmit messages a distance of twenty miles through the air. Today there are boys in the United States, some of them as young as twelve and fourteen years who think very little of carrying on a wireless communication with their friends four and five hundred miles away.

When the radio telephone, and especially the telephone broadcasting stations first came into use there were only a few amateurs and the operators of the so-called commercial stations to listen to the music and lectures that were thrown out into the air. From the very first the concerts and programs have been of the highest order and well worth listening to and the added interest of knowing that they have come hundreds of miles through space made them all the more entertaining. Today there are nearly one hundred high powered radio telephone broadcasting stations which serve the public, wherever they may be, with music, lectures, weather forecasts, news of the world, base ball scores, church services, etc., and what was in the beginning merely an experiment or an interesting form of amusement is fast becoming almost a necessity. Some say it is merely a fad that has taken the country by storm which will die out in time but this is not true. It was bound to come as soon as the radio telephone reached the proper state of perfection and now that it has come it is here to stay. As it gradually assumes its place in the world of activities we will come to be more and more dependent upon it. It may be a good many years before the radio telephone is used to any great extent for intercommunication in the manner of the wire telephone of today but it will be of increasing importance as a means of communicating news, entertainments, business affairs, etc., from central broadcasting stations.

At present there are approximately two thousand radio receiving sets, per day, being installed in the United States. Farmers can get the daily quotations on grain and live stock beside the weather forecasts. Bankers in the smaller towns need never be without the current quotations on bonds and stocks. Those who live miles from the nearest large city may hear the music of the wonderful symphony orchestras and the church services, the pipe organs and the songs of the choir boys from the large cathedrals and churches. Great men and noted orators are brought into your living-room. President Harding has spoken a number of times to large audiences by means of the radiophone. Out in the garden and over your housetop there are waves which, if you will only provide yourself with the right apparatus, become winged messengers to bring the news of the world to your home.

The stations which broadcast programs in the middle western states are located at Madison, Wisconsin, Chicago, Detroit, Toledo and Pittsburgh. These stations have a conservative range of 600 miles to a "single tube" receiving set. The music, lectures and entertainments are all broadcasted on the same wave length, or 360 meters. The market reports and weather forecasts are sent out on 485 meters.

Radio apparatus is more or less complicated, it is true, but it does not require a great deal of actual knowledge of the why and wherefore of radio to be able to operate a receiving set intelligently. The government does not

require a receiving set to be licensed nor are there any laws which govern the installation of a radio receiver. The air is free and any one is privileged to hang out an aerial and "listen in on the universe." Any one who has the inclination and is willing to buy the necessary apparatus may become a wireless fan.

The first question is naturally, "What must I have to hear the radiophone programs?" and the next, "Must I buy the apparatus or can I build it myself?" It is to answer these questions and to help those who are interested in getting started that a radio column has been instituted in this paper.

Those who are lucky enough to be located within thirty or forty miles of one of the large broadcasting stations will be able to construct a simple receiving set that will enable them to hear remarkably well and the entire outfit should cost considerably less than ten dollars. But most of us are not so situated and the apparatus that is necessary includes several parts such as the vacuum tube or audion which cannot be built and must be purchased. However, there is still a good deal that can be made at home and it is always true that we receive more pleasure and enjoyment out of what we make ourselves than from that which we buy. The cost of a complete receiving set with a so-called vacuum tube detectors should not be more than twenty-five or thirty dollars if it is home-made. Those who do not care to build their own sets can buy the complete equipment at a price ranging from ten to three hundred dollars, depending upon the range of the set and the volume of the sound produced. The more expensive apparatus includes amplifiers and a horn that will project the sound out with sufficient volume to fill a good-sized room. Among other things this column will contain descriptions of the various types of receiving sets and simple instructions for building those parts that can be home-made.

Next week we will discuss the first and most important part of the receiving set which is the antenna or aerial.

QUESTIONS AND ANSWERS.

(Mr. Seeley will be glad to assist our readers in their radio problems by answering their questions through this new Michigan Farmer department).

What direction from the house should the aerial run to receive signals to the best advantage coming from the southwest?

The directional effect of a single wire "flat top" antenna is so slight as to hardly be noticeable. Run the aerial in any direction most convenient to get the proper height.

What is the best mineral to use for crystal detector?

Galenite is the most sensitive of the more common minerals though it is not as easily adjusted nor will it hold its adjustment as long as silicon.

Will an ordinary telephone receiver serve the purpose of the headphones of the wireless receiving set?

Yes, to a certain extent; however, the regular radio receivers or 'phones, as they are called, are many times more sensitive.

Wireless waves travel at the rate of one hundred and eighty-six thousand miles, or eight times around the earth, in one second.

It is possible to amplify radio signals to such intensity that the sound would shatter the windows in a house.

The modern radiophone broadcasting station sends out waves which have energy equal to about two-thirds of one horsepower.

Like the Pyramids

—built to LAST



Distributors
WANTED
in territory where "Red Cross" products are not at present being sold.

WRITE Dept. M. for Price List of "Red Cross" Furnaces, Stoves and Ranges, illustrated in color; also Plan Sheet on which our engineers will recommend correct installation without charge.

Co-Operative Foundry Co., Rochester, N. Y., U. S. A.

RED CROSS

EMPIRE

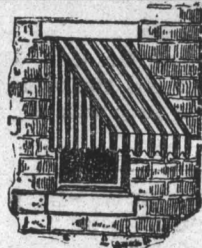
Pipeless Furnace

The sturdy construction of "Red Cross" Pipeless Furnaces, and the long service they give as a result, make them the cheapest in the end to install.

You get more heat from less fuel with a "Red Cross". 70° in every room of any size building is assured. GUARANTEED by over 50 years of experience in building perfect heating equipment.

The "Red Cross"
Prize Range

burns wood, coal or gas. Perfect baker. Has hot water reservoir, warming closets and many other conveniences. Long service at low cost.



44 years experience
back of every job.

Canvas Covers
for all purposes in stock or made to order.

AWNINGS

In smart styles-quality materials, made to order for your home, bringing to it delightful coolness and comfort.

Write for measurement blank with full instructions on how to measure your awnings and hang them.

J. C. Goss Co.
QUALITY
Detroit



BE AN AUCTIONEER AND A BETTER JUDGE OF LIVESTOCK & PEDIGREES

and earn from \$10.00 to \$500.00 per day. Send for FREE illustrated catalog of COL. REPPERT'S AUCTION SCHOOL. The instructors are all men of national reputation. COL. REPPERT will personally instruct each student. Students make bonafide sales daily selling to actual buyers. Term opens JULY 3, 1922. Address

REPPERT SCHOOL OF AUCTIONEERING, P. O. Box No. 8, Decatur, Ind. Please mention this paper when writing for catalog.



Fits the Back

All Peninsular work shirts are made with pointed yokes. They fit the back without drawing or wrinkling. They are the same well known, reliable shirts that have set the standard for 47 years for comfort, wearing qualities and correct fit. More cloth in them than in any other. Always cut 36 inches long. Peninsular dress shirts, flannel shirts and hosiery maintain the same high standards of quality. If your dealer cannot supply you, write us direct.

GEO. F. MINTO & CO.
Dept. M. Detroit



For our
Factory Distributors

The Uni-Hete 1922 Model Gas Burner makes summer cooking and baking a pleasure. Sets in fire-box of any range or cook stove. Makes its own gas from common kerosene. Double valve control—red-hot fire quick—no coal or wood. Every housewife wants one. Costs little—sold on FREE TRIAL—and guaranteed. A rapid money-maker for agents. Full details postpaid.

ACORN BRASS MFG. CO.
532 Acorn Bldg. CHICAGO, ILL.

The Columbiaville Woolen Co.
are in the market for a large quantity of wool direct from the grower and will pay above the market price. If growers will load a truck and come direct to the mill they will be paid on the spot. When brought over fifty miles, local railroad freight charges will be allowed. Where considerable quantities can be gotten together the mill will send a buyer. Local shipments can be made in sacks furnished by us and payments made within five days after arrival. Mr. A. Lawrence, Manager of the Columbiaville Co-operative Association, will verify weights and wool. References—Columbiaville State Bank, Columbiaville Woolen Company, Columbiaville, Mich.

Peonies Write for Special Offer. O. L. RINGLE, Wausau, Wis.

300 STRAWBERRY PLANTS, POSTPAID 150 Sen. Dunlap, 150 Warfield, HAMPTON & SONS, Bangor, Mich. \$2

TRIAL 16 big issues utility and farmers semi-monthly poultry paper, 25 cents. POULTRY GUIDE, Box D, Montpelier, Ind.

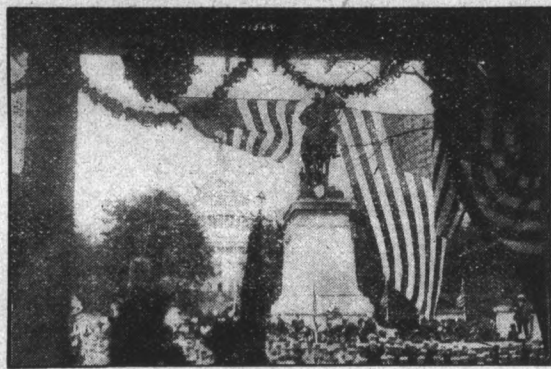
WORLD EVENTS IN PICTURES



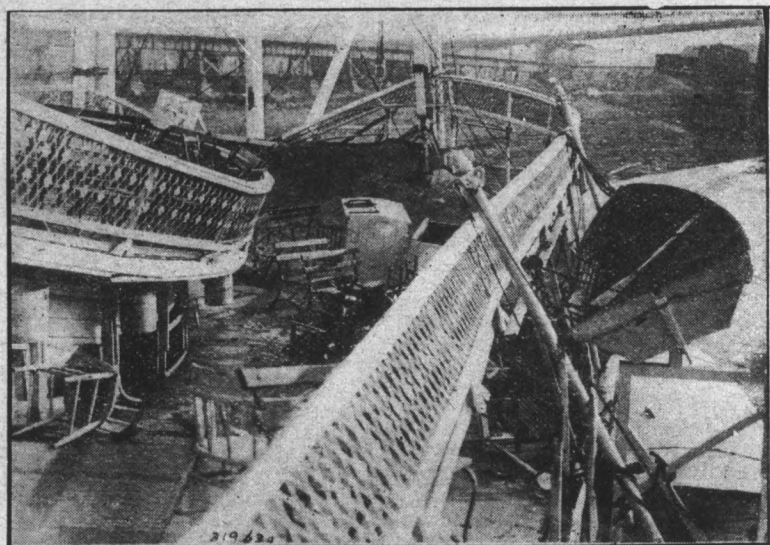
Lady Astor, American born, first woman member of British Parliament, is popular with newspaper men on visit here.



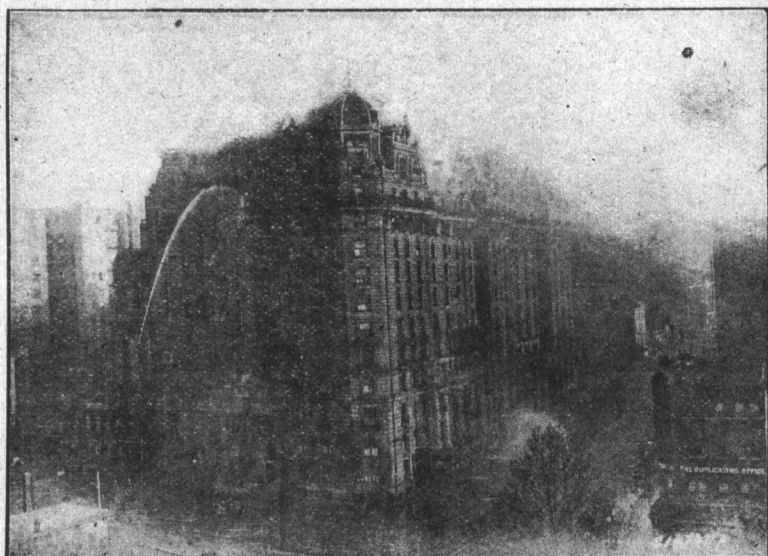
Clarence De Mar, champion long-distance runner, breaks world's twenty-five mile record.



Grant memorial which was unveiled in Washington, D. C. on Grant's birthday, by granddaughter.



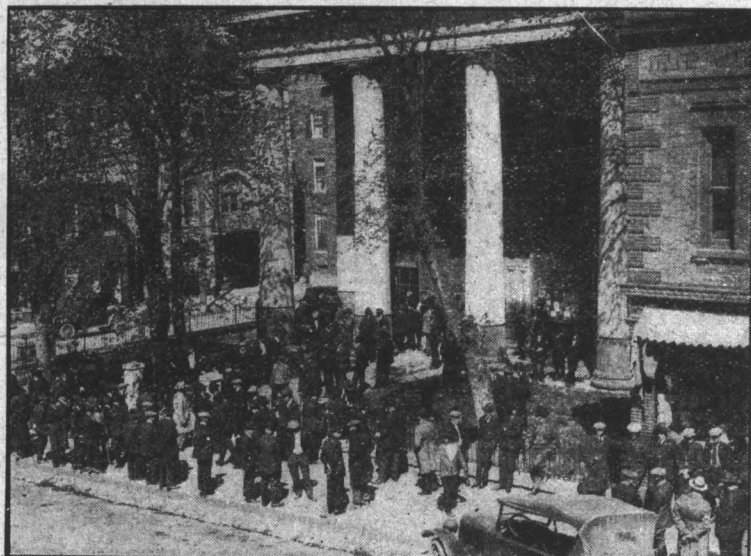
Steamer Island Queen which collapsed while carrying a large number of people to the Grant celebration at Point Pleasant, Ohio, Grant's birthplace. Quite a few were injured.



The Willard Hotel in Washington, D. C., whose ballroom was destroyed by fire shortly after the Gridiron Club banquet, which President Harding and other notables attended.



Two brave girls, not because of the clothes they wear, but are professional rat catchers.



The court house in Charleston, W. Va., where John Brown was sentenced to death for treason in 1859, and where the union miners are now being tried on the same charge.



Harry K. Eustice is in New York to take in big town after spending 27 years in African jungles.



Where President Harding delivered his speech at Point Pleasant, Ohio, on Grant's birthday. His speech was broadcasted by the large radio amplifiers on the tower.



The eight of the Columbia University of New York, in training on the Harlem River for the annual boat race against the Yale University.

THE BLIND MAN'S EYES

By William MacHarg and Edwin Balmer

Copyright by Little Brown & Company

The blind man did not wait for any answer to this; he straightened suddenly, gripping the arms of his chair, and got up. There was more he wished to ask; in the bitterness he felt at his blindness having been used to make him an unconscious agent in these things of which Avery spoke so calmly, he was resolved that no one who had shared knowingly in them should go unpunished. But now he heard the noise made by approach of Eaton's captors. He had noted it a minute or more earlier; he was sure now that it was definitely nearing the house. He crossed to the window, opened it and stood there listening; the people outside were coming up the driveway. Santoine went into the hall.

"Where is Miss Santoine?" he inquired.

The servant who waited in the hall told him she had gone out. As Santoine stood listening, the sounds without became coherent to him.

"They have taken Overton, Avery," he commented. "Of course they have taken no one else. I shall tell those in charge of him that he is not the one they are to hold prisoner but that I have another for them here."

The blind man heard no answer from Avery. Those having Overton in charge seemed to be coming into the house; the door opened and there were confused sounds. Santoine stood separating the voices.

"What is it?" he asked the servant.

"Mr. Eaton—Mr. Overton, sir—fainted as they were taking him out of the motor-car, sir. He seems much done up, sir."

Santoine recognized that four or five men, holding or carrying their prisoner between them, had come in and halted in surprise at sight of him.

"We have him!" he heard one of them cry importantly to him. "We have him, sir! and he's Hugh Overton, who killed Latron!"

Then Santoine heard his daughter's voice raised in a half cry, half sob of hopeless appeal to him; Harriet ran to him; he felt her cold, trembling fingers clasping his and beseeching him. "Father! Father! They say—they say—they will—"

He put his hands over hers, clasping hers and patting it. "My dear," he said, "I thought you would wait for me; I told you to wait."

He heard others coming into the house now; and he held his daughter beside him as he faced them.

"Who is in charge here?" he demanded.

The voice of one of those who had just come in answered him. "I, sir—I am the chief of police."

"I wish to speak to you; I will not keep you long. May I ask you to have your prisoner taken to the room he occupied here in my house and

given attention by a doctor? You can have my word that it is not necessary to guard him. Wait! Wait!" he directed, as he heard exclamations and ejaculations to correct him. "I do not mean that you have mistaken who he is. He is Hugh Overton, I know; it is because he is Hugh Overton that I say what I do."

Santoine abandoned effort to separate and comprehend or to try to answer the confusion of charge and questioning around him. He concerned himself, at the moment, only with his daughter; he drew her to him, held her and said gently, "There, dear; there! Everything is right. I have not been able to explain to you, and I cannot take time now; but you, at

"My name is Lawrence Hillward."

Santoine asked nothing more for the moment. His daughter had left his side. He stood an instant listening to the confusion of question and answer in the hall; then he opened the door into the library and held it for the police chief to enter.

CHAPTER XXV.

"It's All Right, Hugh"—at Last.

EATON—he still, with the habit of five years of concealment, even thought of himself by that name—awoke to full consciousness at eight o'clock the next morning. He was in the room he had occupied before in Santoine's house; the sunlight, reflected from the lake, was playing on the



ceiling. His wounds had been dressed; his body was comfortable and without fever. He had indistinct memories of being carried, of people bending over him, of being cared for; but of all else that had happened since his capture he knew nothing.

He saw and recognized, against the lighted square of the window, a man standing looking out at the lake.

"Lawrence," he said.

The man turned and came toward the bed. "Yes, Hugh."

Eaton raised himself excitedly upon his pillows. "Lawrence, that was he—last night—in the study. It was Latron! I saw him! You'll believe me, Lawrence—you at least will. They got away on a boat—they must be followed—" With the first return of consciousness he had taken up again that battle against circumstances which had been his only thought for five years.

But now, suddenly he was aware that his sister was also in the room, sitting upon the opposite side of the bed. Her hand came forward and clasped his; she bent over him, holding him and fondling him.

"It is all right, Hugh," she whispered—"Oh, Hugh! it is all right now."

"All right?" he questioned dazedly.

"Yes; Mr. Santoine knows; he—he was not what we thought him. He believed all the while that you were justly sentenced. Now he knows otherwise—"

"He—Santoine—believed that?" Eaton asked incredulously.

"Yes; he says his blindness was

used by them to make him think so. So now he is very angry; he says no one who had anything to do with it shall escape. He figured it all out—most wonderfully—that it must have been Latron in the study. He has been working all night—they have already made several arrests and every port on the lake is being watched for the boat they got away on."

"Is that true, Edith? Lawrence, is it true?"

"Yes; quite true, Hugh!" Hillward choked and turned away.

Eaton sank back against his pillows; his eyes—dry, bright and filled still with questioning for a time, as he tried to appreciate what he just had heard and all that it meant to him—dampened suddenly as he realized that it was over now, that long struggle to clear his name from the charge of murder—the fight which had seemed so hopeless. He could not realize it to the full as yet; concealment, fear, the sense of monstrous injustice done him had marked so deeply all his thoughts and feelings that he could not sense the fact that they were gone for good. So what came to him most strongly now was only realization that he had been set right with Santoine—Santoine, whom he himself had misjudged and mistrusted. And Harriet? He had not needed to be set right with her; she had believed and trusted him from the first, in spite of all that had seemed against him. Gratitude warmed him as he thought of her—and that other feeling, deeper, stronger far than gratitude, or than anything else he ever had felt toward any one but her, surged up in him and set his pulses wildly beating, as his thought strained toward the future.

"Where is—Miss Santoine?" he asked.

His sister answered. "She has been helping her father. They left word they were to be sent for as soon as you woke up, and I've just sent for them."

Eaton lay silent till he heard them coming. The blind man was unfamiliar with this room; his daughter led him in. Her eyes were very bright; her cheeks which had been pale flushed as she met Eaton's look, but she did not look away. He kept his gaze upon her.

Santoine, under her guidance, took the chair Hillward set beside the bed for him. The blind man was very quiet; he felt for and found Eaton's hand and pressed it. Eaton choked, as he returned the pressure. Then Santoine released him.

"Who else is here?" the blind man asked his daughter.

"Miss Overton and Mr. Hillward," she answered.

(Concluded next week.)

AL ACRES—Al Thinks "Fair Exchange" is Robbery Especially When It Comes to Butchered Prices. —By Frank R. Leet.

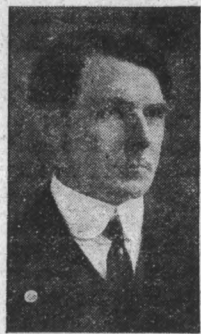


Influence of the Bible

Our Weekly Sermon—By N. A. McCune

WE will consider the international Sunday-school lesson for May 21. The title used is, "Hilkiah's Great Discovery," but the lesson has that only as its starting point, and goes on to touch on many things, particularly the influence of the book of God in human life. The fact that the discovery of one book of the Old Testament had the effect that it did, is very interesting and significant.

Back of the picture is the figure of a boy. The young king Josiah began while very young to "follow the Lord." How is it that the son of a bad king and the grandson of a bad king should be so good a king? Does heredity



count more, or environment? If the boys walk in the footsteps of their fathers, as we are told, this appears to be an exception. There is a good explanation, that the young king was taught by the prophet Zephaniah. It was his youthful training that counted. By the time he had ascended the throne his character was formed. Looking over the generation of young folk today, many people are disturbed because they appear so indifferent to the worthwhile things and so keen for the worthless things. Is the explanation not to be found in the fact that forty years ago all through the middle west and west, life was comparatively simple, and people were obliged to toil for what they had? Life was simple and luxuries were few. But thousands of hard-working folk prospered and became at least moderately wealthy. With wealth has come leisure and the letting-down of moral standards. Nothing takes the place of hard work. The present king of England was trained as a sailor, asking no favors and receiving none. Perhaps that is the reason he is one of a very few monarchs left in Europe.

THE finding of a good book has often been a blessing. A minister once called on a poor woman who earned her living by the wash tub. The premises were unkempt and the cottage was dirty. In a month or two he called again, and beheld a very great change. Everything was different. Even the fence around the house had been repaired and whitewashed. He inquired the cause of all this. The woman pointed to a clipping pinned on the wall. She had found it in a newspaper in which some laundry was wrapped. It was Longfellow's poem, "Maidenhood," and it had recalled to her the days of her happy girlhood in a good home. One of the greatest editors of recent times was W. T. Stead, of the London Times, who lost his life on the Titanic. As a lad of fifteen he one day bought for one cent (think of it!) a paper-bound copy of Shakespeare's Hamlet. He says, "I shall never forget the shock—the bewildering shock—which I received from the last scene of Hamlet." He could not believe that Hamlet had to die in that last scene. He read it again, and it was one of the turning points in his life. He became a lover of literature. A new world was opened to him.

The Bible has had that effect though in a much more powerful way, and with wider results, in many instances. One was the case of Luther. Sitting in the monastery and poring over an old Latin Bible was the birth of the Reformation. A few students once gathered each morning early to read the Greek New Testament. They were

changed by it, and went out to visit the poor in the prisons, and to evangelize the neglected. It was the beginning of the great revival in England that later gave birth to Methodism, abolished slavery in British colonies, and reformed the prisons of Europe.

TODAY the Bible is the "best seller" among books. No other book approaches it in actual sales. It was the first book to be printed after the invention of movable type. The labor of love which has been bestowed on the Bible in translating it into the many languages and dialects almost passes belief. When the war broke out, it was being sold in fifty-three dialects in Russia alone, and fifty-three in Egypt. Up to 1919 Bibles had been distributed by the American and British Bible societies to the number of four hundred and forty millions, and in one year while the war was raging, these two societies disposed of thirteen millions of copies. It is no wonder that when a part of the Old Testament was discovered in the temple, and was read to the king, that such a sweeping series of reforms resulted. Reforms have always followed in the wake of a revived interest in the reading of the Bible.

No more wholesome and rewarding movement could take place in America today, than a general revival of Bible reading. The greatest literature in the world is to be found in it, from a literary point of view, alone. Poetry, history, orations, letters, are all there. Professors of literature state that the greatest stories to be found anywhere, are within the covers of the old book. Some years ago a prize was offered for the selection of the best short story ever written. A prominent English writer voted for the story of the woman taken in sin, told in John's gospel, twelfth chapter, and he received the prize. It contains two hundred and five words.

I AM practicing up on the stories now, telling them to my small son, aged three. He has been introduced to Daniel's adventure with the lions, and his sojourn in the fiery furnace. Each night he demands to hear about the lions. A child has a fair start toward a knowledge of the greatest literature if he has been told the stories of the Bible, and he ought to know them before he is old enough to read. Ruskin, one of the bright lights of nineteenth century literature, had a very strict Puritan mother. While a tiny lad she made him commit to memory entire chapters of the good book. The list he memorized is almost staggering. He later passed through Oxford University, and traveled repeatedly all over Europe. But he states that the most satisfactory portion of his education were the Bible chapters he had committed when a boy. As a book for study, nothing equals the Bible. It is almost inexhaustible. An educator in the east makes this statement: "A knowledge of the Bible without a college education, is of more value than a college course without the Bible." Fortunately one does have to choose either alternative. He may have both. The Scripture that was discovered in Josiah's time was probably only a portion of the book of Deuteronomy, but it had a marked effect. We are more happy than Josiah was, for there are vast areas of Scripture familiar to us of which he knew nothing.

In the most convenient kitchens, stove, table, water and storage are within a six-foot radius of each other.

MULE-HIDE
NOT A KICK
IN A MILLION FEET
**ROOFING
—AND—
SHINGLES**

**Distinctive—
Permanent—
Economical**
—That's MULE-HIDE
Roofing and
Shingles

MAIL THIS COUPON NOW!
THE LEHON COMPANY
44th to 45th Street on Oakley Avenue, Chicago
Dept. M
I am interested in ☐ Roll ☐ Shingle Asphalt Roofing. Please send me descriptive literature, samples and name of dealer in my locality.
Name _____
Address _____

"Not A Kick In A Million Feet"

Old Reliable
Coffee is reliable
Always the Same—Always Good

ONE MAN PULLS 64 Stumps in 3 Hours
World's Record
with the marvelous wheelbarrow stump-puller at big Minnesota Land Clearing Demonstration—outclassing all competitors. Made of best steel, strong, speedy, powerful, and easily moved from place to place.
MARTINSON MFG. CO.,
1404 Lincoln Bldg., Duluth, Minn.
Free Trial
Guaranteed. Try it for 10 days free. Terms if you wish. Write today for particulars.
MARTINSON WHEELBARROW STUMP-PULLER

SCOPE
HOT SPOT
Cheaper Gas for Ford's
Guaranteed to save 20 to 30 cents on each dollar. More power, quicker warming up, sweeter running, no carbon. Accomplished through complete vaporization by the Scope Hot Spot. Price \$5.00 installed. Sold by any garage. Or send \$4.00 for sample with plain directions. Satisfaction or money back.
Local Agents, Write for Money-Making Proposition
Briscoe Devices Corporation Dept. F Pontiac, Michigan

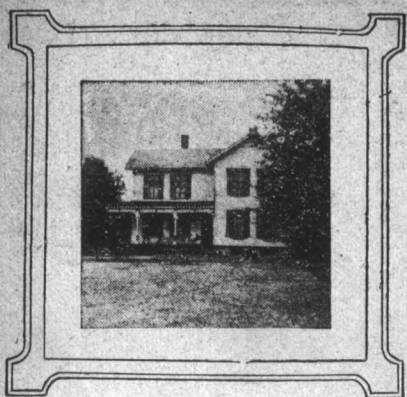
BUG-PROOF SISAL TWINE 7 3/4 cents
per pound shipment from Chicago. We also offer Standard and Manila.
M.F. COOPER TWINE CO., MINNEAPOLIS

WALL PAPER
1,000,000 ROLLS
Per Roll
Write for Free Sample Catalog of 50 new designs and colorings.
Why use Paint when 82c will paper Room 12 x 14, 9 ft. high
Martin Rosenberger
236 ROSENBERGER BUILDING
Cincinnati, Ohio

PAINT—\$1.17 PER GALLON
Get factory prices on all paints. We guarantee quality. We pay the freight. Write today.
Franklin Color Works, Dept. M, Franklin, Ind.

Vegetable
Plants for sale. All kinds of transplanting vegetable plants, bedding and flowering annuals. Chelsea Greenhouse, Chelsea, Mich.

Please Mention The Michigan Farmer when writing to advertisers



Reflect upon your present blessings of which every man has many, not on your past misfortunes of which all men have some.—Dickens.

Woman's Interests



Rhubarb "Tones" the System

By A. L. L.

FEW are the farm gardens that do not contain rhubarb, and equally few are the families where it is not welcomed when long winter days have passed and the "spring fever" in our blood is demanding something fresh. According to Pattee, rhubarb contains oxalic acid, which is valuable in toning the system, but it must be confessed that rhubarb as a food contains but little nourishment. A half-cup of stewed rhubarb contributes but ninety-seven calories and as most of these calories are contributed by the carbohydrates in the sauce, it is open to suspicion that they come more from the sugar added than from the fruit itself. However, rhubarb furnishes variety, which helps the appetite, and is not to be despised as a useful member of the food family.

One standing objection to rhubarb sauce among thrifty housewives is the amount of sugar it requires. This amount may be lessened by adding a little soda to the rhubarb just before it is removed from the fire and sweetened.

As a change from stewed rhubarb, try steamed rhubarb, but do not try to steam it in the steamer. Cut it in inch pieces, after washing, and cook in the double boiler until the pieces are tender. Do not stir while cooking, and remove from the fire before it goes to pieces. If it is cooked too long it loses flavor. Sweeten after removing from the fire.

If the oven is going, try baked rhubarb. Wash, cut in inch pieces without peeling, and arrange in layers in a baking dish, sprinkling each layer with sugar. Cook until the rhubarb is tender. The food value of this dish is increased by using alternate layers of figs, dates or raisins which have been boiled five minutes on the stove before adding to the rhubarb.

Rhubarb pie, either one crust or two crust, if properly made, is a welcome springtime dessert. There are various ways of making the one crust pie. Some cooks favor cooking the rhubarb and baking the crust before combining, while others cook the two together. The latter way has the merit of being easier and taking less time, and the result is just as satisfactory. In making the pie this way, cut enough rhubarb to fill the pie plate, beat two egg yolks with one cup of sugar which has been sifted with two level tablespoons of flour, stir the rhubarb into this egg and sugar mixture, fill the pie crust and set in a cool oven. Increase the heat gradually and bake until the rhubarb and egg combine into a rich custard. Frost with the egg whites.

If you are going to can rhubarb, do it by the cold water method. If you have running water, pack the fruit jars with rhubarb, adjust sterilized rubbers, taking care to use only new ones, and set the cans under the tap. Let cold water run into the can for ten minutes, and seal without shutting off the water.

If you haven't running water, put the rhubarb into clean cans, adjust new rubbers, and set the can into a deep pail. Pour on clean cold water

until it comes above the top at least five inches. Then, while still leaving the can in the water, seal tightly. Rhubarb canned in this way will keep indefinitely.

Rhubarb and pineapple, combined in the proportion of one part rhubarb to two parts pineapple, makes a delicately flavored sauce. Cut the rhubarb into inch pieces and dice the pineapple before measuring. Sweeten to suit. A half-pound of sugar to each pound of fruit makes a good proportion.

In making rhubarb jams and conserves the fruit and sugar should be combined in layers and allowed to stand over night before cooking. There are many combinations of fruits and nuts which may be used in making these conserves, or jams.

Rhubarb and Fig. Use six pounds of rhubarb to one of figs, and the grated rind and juice of three lemons to this amount. Five pounds of sugar gives the right consistency.

Rhubarb, orange and nut conserve. Six pounds of rhubarb, the grated rind and cut-up pulp of six oranges, and one pound of broken walnut meats.

Do not add the nuts until the mixture is nearly cooked.

Rhubarb and raisins. Follow directions for making rhubarb and fig conserve.

Rhubarb jam may be made by taking equal weights of rhubarb and sugar, and the grated rind and juice of one orange to each three pounds of fruit. Let rhubarb and sugar stand over night in the preserving kettle. In the morning add the orange, let simmer a half-hour, then boil a half-hour. Store in sterilized cans.

Rhubarb water makes a refreshing drink, either in cases of sickness or for hot summer days. To make, wash and cut in very thin slices four medium-sized stalks of rhubarb, without peeling. Put in a saucepan without breaks in the enamel, or in a deep earthen bowl and pour over it four cups of "boiling" water, in which has been dissolved four tablespoons of sugar. Cover, and let stand until it is cold. Then strain off the liquid, add the juice of one lemon, and more sugar if desired. If you have no lemons, this may be used without the lemon juice. However, the addition of lemon juice to any fruit drink helps to bring out the flavor of the other fruits.

WHEN THINGS REFUSE TO STICK.

FREQUENTLY the need for a paste which will stick paper is felt about the home. Buying this kind of paste is unsatisfactory as it frequently dries out and becomes useless. The Michigan State Normal College has sent out the following tried formula for a paste for schoolroom use which meets all such needs. The paste is not intended for wood, glass or rubber or for any heavy work for which glue is needed. Neither does this paste stand freezing.

Put one tablespoon of powdered alum in one quart of water and bring to a boil. Boil twenty minutes, in it put one cup of flour that has been wet and stirred smooth. (Be sure to boil it briskly for twenty minutes). Stir constantly to prevent lumping. When removed from the stove add to it twenty drops of oil of cloves. Remove all the lumps and pour into glass or stone jars. If it becomes too thick, thin with water. It will not harden.

A photographer once gave me this as the best paste he could find and which he used for all kinds of work even mounting. Prepare a thick laundry starch as you would for hot starching of clothes. Cook until it clears and stir to avoid lumps. Strain and to each pint add twenty drops of carbolic acid to keep it from souring.

Either of these make excellent paste for children in school for which there is a constant demand.—Mary M. Allen.

REFINISHING OF FURNITURE.

ARE you going to paint that chair or table that is stored away in the attic or shed this spring? Painted furniture is very popular nowadays, why not make the most of what we have and bring in those old dejected pieces of furniture and rejuvenate them?

To make a perfect job of an old varnished piece, every bit of varnish should be removed. Unless this is done the work will not be entirely satisfactory. Varnish may be removed on smooth surfaces by scraping with a knife blade, piece of glass, steel wool, or sandpaper. This is too harsh a treatment for veneered or delicate surfaces. Care must always be taken not to mar or dent the wood.

Ammonia, turpentine and alcohol will dissolve varnish but the most satisfactory method is to use a commercial varnish remover. There are many of them on the market and all are about equally good. They soften the varnish and it can be easily removed by scrubbing or wiping with a heavy cloth. For final cleaning use gasoline or turpentine. These will remove all traces of the varnish remover. If, however, it takes too much time to remove the varnish, be sure the varnish is absolutely clean, for paint will not stick to greasy surfaces. Rub with steel wool, emery paper, or a fine grade of sandpaper. This will smooth the rough pieces of varnish and at the same time scratch the smooth surface so that the paint will adhere to it.

Use a no-gloss house paint for the first coat, and two coats of a light-colored paint is to be used over a dark surface. Allow each coat to dry thoroughly, then add a coat of enamel paint of the color desired.—Louise H. Campbell, M. A. C.

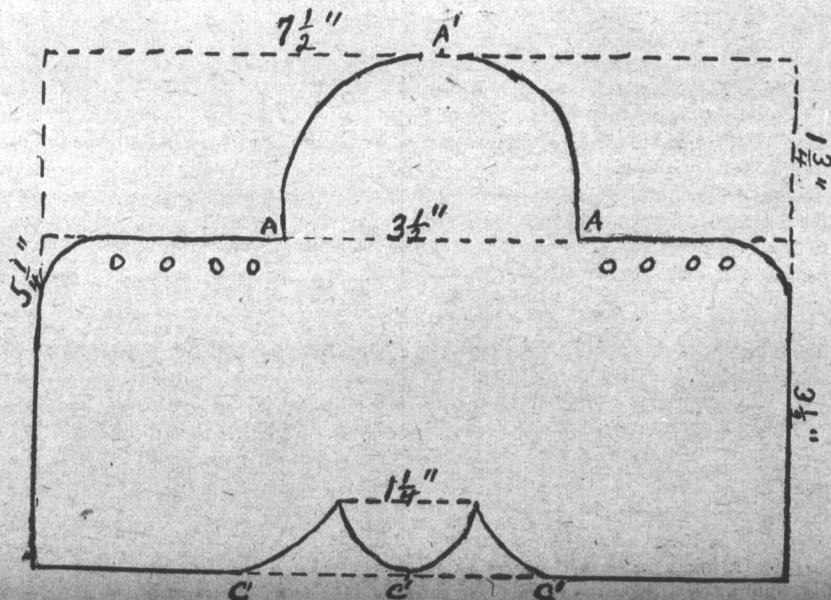
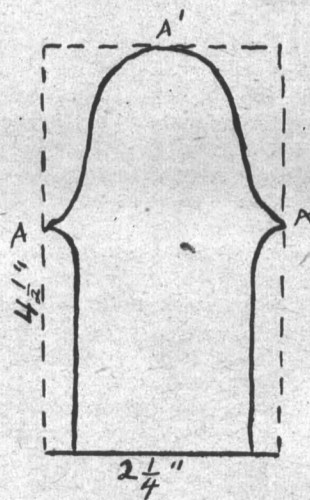
Home-Made Moccasins

By Alice Draper

HAVE you tried a substitute for the expensive shoes while baby is creeping? All too often a new pair is needed more quickly than we who are paying for a home can manage. Perhaps the little moccasin pattern which solved my problem may prove as much of a godsend to others.

This moccasin will fit the average six-months-old child when made with these measurements. They may be made from old coats, kid shoes or felt hats.

The pattern is simple and quickly made. Cut and join as shown in the diagram and sew up with small seams on the outside, that there may be nothing to hurt the tiny foot. Punch holes as shown and lace up. A few stitches of mercerized embroidery floss added in the many varied patterns is an improvement.



Don't Send 1 Penny

SUIT Bargain

This is the greatest bargain ever offered. The suit consists of a tuxedo jacket, which can be worn as a separate coat or sweater, and a plain circular skirt to match, both for the remarkably low price of \$3.98. This suit would retail for about \$10.00.

The material is a knitted ratine jersey cloth of excellent weight, which will give wonderful satisfactory wear. Most stylish material ever designed for sport clothes. It is a copy of the fine all wool sponge which sells for \$6.00 a yard.

The jacket is designed with tuxedo front, cuffs and sash belt of brushed yarn. Has set-in sleeves and serviceable pockets. Cut full. Unlined.

The skirt has elastic waistband and two patch pockets. Cut full and roomy.

This suit can be worn for all occasions. Our price is ridiculously low.

COLORS: Oxford gray, brown or tan. Sizes to fit misses 14, 16 and 18 yrs; women, 32 to 44 bust.

Don't Send 1 Penny

Just send your name and address—no money. When the postman delivers this suit at your door, pay him \$3.98 for it. We have paid the transportation costs. If, for any reason whatsoever, it is not better than you expected, return it at our expense and we will cheerfully refund your money. Could anything be fairer? Order by No. 39.

Walter Field Co., Dept. T1101, Chicago

POULTRY

HIGH-GRADE CHICKS

At Reduced Prices for May and June!

We hatch only chicks from tested, purebred, heavy-laying flocks that are money makers. If you want a practical big-paying flock you can get it at a low price by ordering our S. C. English White Leghorns, Barred Rocks, or R. I. Red chicks. Catalogue and price-list.

MICHIGAN HATCHERY, Holland, Mich.

CHICKS

Thorough-bred Varieties of Tom Barton English White Leghorns, S. O. R. I. Reds, Parks Barred Rocks, Strong and Healthy chicks from tested heavy producing stock, correct in plumage and color as well as being EXCELLENT LAYERS. 100 per cent live delivery guaranteed. Order your May and June chicks now at my new low prices. Interesting catalogue free. Importer.

BRUMBER'S POULTRY FARM, Holland, Mich.

CHICKS

Seven varieties, from excellent purebred stock. 100% live delivery guaranteed. Parcel Post Prepaid. None better. Catalogue Free.

Lee's Poultry Farm & Hatchery, Edison, O.

Useful Anconas Your success depends upon the strain. At Michigan's largest poultry show, (Grand Rapids) won 1st and 2nd cock, best shape male, 5th cockerel, 5th hen, 3rd pullet, 4th pen, utility and exhibition pens, every bird Hogan tested, eggs and chicks at hatchery prices with three times the quality. My 18 page booklet "Useful facts about Useful Anconas" tells you many things you ought to know before buying elsewhere. Michigan's Ancona Headquarters, College View Farm, R. 3, Hillsdale, Mich.

Chicks and Pullets

From trap-nested, English S. C. W. Leghorn hens. We hatch of nothing but our own trap-nested egg-bred stock. Pullets ready for delivery May 15th Start right by getting some of our unexcelled winter laying stock. Prices moderate.

Hudsonville S. C. W. Leghorn Ranch Hudsonville, Mich.

B. Rocks
R. I. Reds
Anconas
W. Leghorns
B. Leghorns
Minorcas
Ask for our free catalogue and price list for May and June delivery.
H. H. PIERCE, Jerome, Mich.

Day Old Chicks

BABY CHICKS

We have just the chicks you have been looking for, the large, strong, vigorous kind from free range flocks that have been culled for heavy egg production. Shipped prepaid parcel post. Safe arrival guaranteed. Ask about 8 wk. pullets. Catalog free.

Gilt Edge Poultry Farm, Zeeland, Mich.
S. C. W. Leghorn Pullets 10 weeks old, 85c each. One year old hens \$1.25 each now ready to deliver. HENRY WATERWAY, R. 4, Holland, Mich.

Rural Health and Sanitation

Conducted by Dr. C. H. Lerrigo

GREATLY REDUCED.

SINCE the Saturday Evening Post printed some experiences of Cobb, the humorist, about his methods of reducing the rotundity of his waistline to sylphlike proportions, I have had many inquiries from interested readers who desire to know if like treatment may be applied profitably in a case in which they have had special interest.

I always try to read the articles about health that appear in the popular magazines, because they bring me so many letters from our people who want to know about them. So I read Irv. Cobb's articles about reducing the weight, with much interest. Stripped of their adipose tissue they give one significant fact: You can reduce your weight by reducing your eating.

True? Certainly it is true. I have been giving it forth as the truth for many years. But it is not a very palatable truth to the fat person. He very much prefers that advice that tells him to "eat, and grow thin." He is willing to do special exercises, to take baths of very special kinds, to try hydrotherapy, electrotherapy, mechanotherapy and many other therapies. But he does dislike the idea that he must stop eating.

To me one of the most valuable parts of Mr. Cobb's articles is that in which he describes the twenty-four hours of agony of his first serious effort to limit the magnitude of his splendid appetite and then goes on to tell of the great reward that came to him as a result. All the distress of the effort was amply recompensed by the improved tone of his whole body within forty-eight hours.

"Before night of the second day that all-gone sensation had vanished. Already I had made the agreeable discovery that I could get along and be reasonably happy on from thirty-five to fifty per cent of what, until then, I had deludedly thought was required to nourish me. Before the week ended I felt fitter and sprier in every way than I had for years past: more alive, more interested in things, quicker on my feet and brisker in my mental processes than in a long time."

There's the whole story. I doubt if many will get results as quickly as Mr. Cobb. If we depend in the least degree upon the illustrations of the article he was due to get quick results or none. But stay by it two weeks or a month and see what you get.

Most persons eat too much, after middle life is reached. Children and young people in the years of growth need an abundance of nourishing food. Men and women who are engaged in heavy manual labor need more and different food than those in sedentary occupations. But there are few of those of us who have reached middle age who may not profitably review our accustomed diet and see if a reduction in its bulk and a change in its character may not make us more mentally alert and physically fit.

TOENAIL CAUSES SUFFERING.

I would like to know what will cure an ingrowing toenail. I have a case like this on my big toe which I suffer from quite a bit.—Subscriber.

The principle in curing ingrowing toenail is to remove the pressure. Do not try to cut out the ingrowing portion at first. Usually the tissue around it is too tender for manipulation. Take an old safety razor blade and scrape the whole top of the nail until it is as thin as you can make it without cracking or breaking. In a day or so this

thinning of the nail will cause it to crowd up in the center and thus relieve the pressure at the edges. By keeping the nail scraped thin for a time and wearing sensible shoes you will effect a complete cure. If there is much proud flesh it may be destroyed by applying powdered burnt alum after soaking the foot in very hot water.

RECEIVED BLOW ON EAR.

I have been troubled with my ear. About one year ago I received a blow on the side of the head, which ruptured the ear drum. It healed nicely, that is, never discharged, but left a small perforation. There was a terrible noise at first and it still annoys me at times. I have seen the doctor. He seems to think it will leave. I can hear out of it and it doesn't hurt, but is annoying.—Reader.

I think you were very fortunate to get off so well. A blow of that nature often causes total deafness in the affected ear. Your doctor is wise in refusing to interfere. The noise will disappear as the drum entirely heals.

CONTRARY HAIR.

I have very contrary hair; can't do anything with it. It is dry most of the time and will only set the way I like it while I wet it, and then not for long. What can I do?

Hair in such condition indicates that the oil glands of the scalp are inactive. This is very common among boys in their teens and sometimes in girls. The remedy is to brush the hair vigorously with a good stiff brush twice daily, thereby stimulating the scalp and its glands. Do not wet the hair with water. This serves to spoil the effect of such oil as you naturally have.

AUTO-INTOXICATION.

Why do I have so much general aching and a feeling as if everything was going to the bad? I bloat badly, and when I sleep, dream something awful. I would like to know what to do.—J. P.

This is often noticed in persons who do not have proper bowel movements. They may have an action every day but it does not really clear the bowel. The result is self-poisoning, which causes aching, soreness and heaviness of body and mind. Get your constipation really cured and these symptoms will disappear.

A CURE FOR NEURALGIA.

I have suffered with neuralgia for about twenty-five years. Is there any cure for it? I am fifty-one years old.—Mrs. W. J.

I think there is a cure but I doubt if you have ever tried seriously to get it. Most patients are perfectly willing to buy one or a dozen bottles of advertised medicines or to rub on lotions by the barrel, but that never cures. All neuralgias can be cured by removing the cause. The first thing, then, is to find the cause. This means that you must be examined from head to toe and from the skin to the deepest organ. It means that the urine, the blood, the sputum and all the different organs and their secretions and excretions be examined. I remember a woman who consulted me about a long-standing neuralgia of the ear. She had suffered for years and had tried everything, even a surgical operation on the nerve. I sent her to an X-Ray specialist who took a picture that showed a wisdom tooth that had never come down. With its removal the neuralgia ended.

Says Sam: It's better to have father and son meetings at the church than in the woodshed.

A HEATING SERVICE THAT SAVES COAL



COAL is expensive. Every ton should produce all the heat that is possible. Considerable waste in fuel is due to two things: a heating system that doesn't fit the house or the owner's lack of knowing how to operate his furnace properly. The result is always the same—wasted fuel and an uncomfortable home; and the furnace is liable to get out of order.

The Gilt Edge Home-Owner's Heating Service eliminates these costly and annoying heating troubles entirely. Your dealer, backed by the Gilt Edge organization, is fully equipped to give you a complete heating service. Let him help you choose the furnace best adapted to your home.

This service insures absolute satisfaction. The Gilt Edge dealer understands how to install, operate and repair Gilt Edge furnaces. He is a heating expert. Ask him today about the proper heating system for your home.

The R. J. Schwab & Sons Co.
271 Clinton St. Milwaukee, Wis.

PIPE and PIPELESS GILT EDGE FURNACES

Wipe Out Every Rat and Mouse

Amazing New Discovery Quickly Kills Them All. Not a Poison

Rats, Mice, Gophers—in fact all Rodents can now be wiped out easily and quickly. Imperial Virus will do it. This new discovery is a fluid, true Virus. Entirely harmless to humans, poultry, stock, pets, etc.



Infects Rodents only. Greedily eaten on bait sets up burning fever. The pests communicate it to others, and all die outside, hunting air and water. Imperial Virus is put up in sealed bottles, thus insuring full strength and potency. Only safe, sanitary method to overcome these pests. Protect your Poultry, especially Baby Chicks and Egg Hatches.

YOU CAN GET YOURS FREE

Here's how! Send \$1.00 today (currency, M. O. Check, etc.) and we will ship you by return mail, postpaid, two regular, full sized (double strength) \$1.00 bottles of Imperial Virus. Use one to rid your place of these pests, and sell the other to a neighbor, thus getting yours free. Special inducements to represent us.

If more convenient, send no money, just your name and address. Pay postman \$1.00 and few cents postage when two bottles arrive. Guaranteed to do the work to your entire satisfaction within 30 days, or your \$1.00 will be cheerfully refunded.

Imperial Laboratories

Dept. 474
2110 Grand Ave., Kansas City, Mo.

POULTRY

CHICKS 10c

Barron's S. C. W. Leghorn and Sheppard's Ancona chicks for June delivery. Stock from trap-nested stock with egg records from 200 up to 270. We prepay all shipments and guarantee safe delivery. Order now as our supply is limited. Write for catalogue. Byron Center Poultry Farm, Byron Center, Mich.

STRONG CHICKS

from our S. C. English White Leghorns and Anconas. Records of 200 and up, at 12c each by prepaid parcels post, 100 per cent alive guaranteed. A chick well hatched is half raised. Riverview Poultry Farm, R. 2, Zeeland, Mich.

POULTRY

PULLETS

WHITE LEGHORNS-ANCONAS

50,000 pullets for 1922 delivery. Because we raise on such a tremendous scale we can furnish pullets at extraordinary low prices. For heavy egg production get the Z. P. F. STRAIN. Pullets for sale every Week. Catalog and price list free.

Zeeland Pullet Farms

Zeeland, Mich.

"Pioneer Pullet Producers"

Chicks That Satisfy



Our 11th year.

S. C. Brown Leghorns, English type White Leghorns.

GREAT LAYERS.

Large White Eggs.

100% safe arrival

guaranteed.

Get our prices at once.

We can save you money.

Large instructive catalogue free.

WOLVERINE HATCHERY,

R. 2, Zeeland, Mich.

BABY CHIX

The Old Reliable Breeds

S. C. WHITE LEGHORNS

English and American Strains

Barred Rocks Anconas

S. C. Brown Leghorns

HERE we are, just a few hours from your door, with baby chix from the best breeds. Our growth from one small incubator to 22,000 egg capacity has been steady and denotes honest dealing. Get our prices on chicks from our healthy, free range, heavy laying stock. Send today for handsome catalog in colors.

CITY LIMITS HATCHERY & POULTRY YARD,
Route 5, Box 11 Holland Michigan



COLUMBIA Baby Chicks

Buy your English Strain White Leghorns and Ancona baby chix from the Columbia Hatchery. They are vigorous purebred, heavy-laying stock. Shipped by parcel post prepaid. Special price on 1,000 lots. Columbia Hatchery, 24 W. Main St., Holland, Mich.

CHICKS

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

Mankel Ideal Hatchery,
Box B. Upper Sandusky, Ohio

200,000

Baby Chicks

FOR 1922

Shepard's Anconas, English Type White Leghorns and Brown Leghorns and Barred Rocks. Why pay two prices when you can buy direct? Our chicks are from strong, vigorous flocks of fine quality and excellent layers. Chicks are shipped prepaid with 100% live arrival guaranteed. Order now, catalogue free.

KNOLL HATCHERY,
R. 12, Holland, Mich.



LOOK!

JUST-RITE Baby Chicks 11-2 MILLION chicks for 1922. POSTAGE PAID. 95% live arrival guaranteed. MONTH'S FEED FREE with each order. A hatch EVERY week all year. 40 breeds chicks, 4 breeds ducklings. Select and Exhibition grades. Catalogue free, stamps appreciated. Nabob Hatcheries, Dept. 15, Gambier, Ohio

CHICKS, Have shipped thousands each season since 1904. Let us send our prepaid prices. Freeport Hatchery, Box 12, Freeport, Mich.

HA! HA! CHICKS 75,000 and up. Buy Hi-grade Profit Paying Bred-to-Lay Chix. From tested egg strain. Best foundation stock ever produced. Hatching eggs, ducklings, 10 varieties. Cir. stamps appreciated. Laurence Poultry Farm, R. 7, Grand Rapids, Mich.

BABY CHIX

May & June delivery prices. Barred Plymouth Rocks, White Rocks, B. I. Reds, Black Minorcas, White Leghorns or Anconas, 25 for \$5.50; 50 for \$10.00 or 100 for \$16.00 prepaid, 100% live delivery guaranteed. Our 12th year producing chix that please. July price 2c less per chick. Green Lawn Poultry Farm, R. 3, Fenton, Mich.

Our Boys' and Girls' Department

Club Project Beginning of Unique Business

Success in Canning Club Work Shows the Way to a Profitable Occupation

By G. O. Stewart

SEVERAL years ago Louise Devers, a young Wayne county girl, came into possession of a motherless lamb. She immediately laid plans for its shelter and care, not realizing then what a pet lamb might bring to her some little time ahead. Tad, as he was called, developed slowly for several months, but good warm, sunny weather and plenty of Louise's attention brought forth great changes, and soon he was shown to all visitors of



"Tad," Beginning of Louise's Success. Robindale Farm as the "biggest little orphan" ever raised.

The profits that Tad brought to Louise were used the next year for another new adventure. Club work

was just being introduced in Wayne county and one of the neighbor ladies asked Louise to join a poultry club. She invested in a few Barred Rocks. At the same time some girls preferred to have a canning club, so Louise decided to join both clubs. After attending a canning demonstration by an expert from M. A. C., Louise decided to purchase additional and better canning equipment. The first thing she bought was a steam canner and some good glass top jars. Later on several dozen special square white glass jars were purchased, the latter being used for exhibit packs only.

Not long after the new clubs were organized Louise found that she just naturally drifted to canning. She stuck to the poultry work too, and made an excellent showing. But the untold quantities of garden products that often went to waste were not to rot in the fields any more. Louise worked hard all summer, and in the fall made a wonderful showing at the local and county club exhibits. She entered twelve of her best jars at the Detroit State Fair in 1919 and carried

away nine blue ribbons. This was in the open class exhibit. At the county fair she won even a larger number of firsts, several seconds and some thirds.

At the County Achievement Day that fall Louise was announced as the county canning champion of Wayne county and was awarded a scholarship at M. A. C.

The next year she increased her canning and put up a total of 423 quarts of fruits and vegetables besides several dozen glasses of jelly and jams. She received special recognition at the State Fair again in 1920, and several of her packs were selected by the state club leaders to be sent to the Smithsonian Institute at Washington, D. C. In addition to this she won a free trip to Chicago to attend the International Live Stock Exposition that winter.

After Louise reached the age limit in club work she felt that she could not stop her canning work. New things were coming up all the time, and city



Louise's Canning Cabin.

people were beginning to learn they could buy good home-canned goods at Robindale Farm. Her profits were gradually increasing until newer and better equipment was added, the last being a mechanical sealer for sealing tin cans. Louise found that if her products were of good quality and the canning process done carefully, home-canned products brought as good or better price than commercially canned produce. Last year her output reached a thousand cans, and all outside of their home needs were sold. Louise finds that canning in tin is so much cheaper, easier and quicker. She gets a better product, and when she passes out a sample can she impresses on the mind of her future customer that the quality they find in her samples is in every other can. In other words, she guarantees quality or refunds their money. There is always a market when your labor carries that guarantee.

The Robindale Log Cabin is the newest addition to the farm. Louise now joins her father in roadside marketing, and the two together do business in one of the most attractive roadside markets in the Detroit area. Passing out Michigan avenue from Detroit, you will find the Robindale Log Cabin three miles west of Dearborn. With the exception of some fruits practically all their products are home-grown. The partnership of father and daughter which has been strengthened from year to year, has given Louise the real sense of ownership.

From the 4-H standpoint, Louise Devers has become widely known among club members of Michigan as one who became very skillful of hand with her garden products and canning equipment; used her head so effectively in being able to sell canned goods at a nice profit; showed the truthness of her heart by her honest pack, and fortified her health by her outdoor work.—G. O. S.

Our Letter Box

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

Dear Uncle Frank:

I am a boy fourteen years old, and am in the eighth grade. I have one brother and two sisters older than I, and a sister and brother younger.

My younger brother, Fred, and I have five rabbits and also five small ones about three weeks old which we expect to make some money for ourselves. We have a pony and a small stoneboat, which we hitch him to and do light things. When we first got the pony we could just ride him. When we first hitched him to the buggy he would not go, but when he knew we really meant it, he went all right.—Marquis Baker, Carleton, Mich.

With the rabbits and the pony you boys ought to have a lot of fun. Let me know how your rabbit business turns out.

Dear Uncle Frank:

I received your letter today and was glad to be able to enter the contests. As you asked me to write some about the west, I will try.

Golden is situated in a valley and surrounded by mountains. To the west of us is Lookout Mountain. Buffalo Bill's grave is on the summit of it and there is also a museum there containing his personal relics, such as the clothes he wore, weapons with which he fought the Indians, and skins and heads of animals he has killed in his hunts, besides many other things. The road leading up the mountain is called the "Lariat Trail." I took the trip on my birthday and it certainly was a wonderful trip.

The weather here can't be beaten. The sun shines every day and the sky is always so blue, but there is very little rain. All the water we have to use is stored in large reservoirs and is from the snow that melts in the mountains.

One of the sports that is enjoyed most in summer is hiking in the canyons and mountains. In the winter there is skiing on Genesee Mountain.

Although Colorado is a fine place, I'll be glad when I am able to return

to Michigan. That suits me best.—Hazel Crowell, Golden, Colo.

Hazel is west for her health. I am sure all we stay-at-homes are glad to hear from our pal in Colorado. Write us again, Hazel.

Dear Uncle Frank:

Rap! Rap! Rap! May I come in? I hope I can.

I just finished reading the Michigan Farmer, and the Boys' and Girls' page is very interesting.

I will describe myself. I am a girl twelve years old, in the eighth grade at school, four feet eleven inches tall, with light hair and blue eyes. My birthday is the thirteenth of June. Have I a twin? If so I would like to hear from her (or him). I will answer all letters I receive.

I hope this letter escapes the waste paper basket.—Frances Chamberlin, Bad Axe, Michigan.

Don't rap, just walk in. The door is open and welcome is on the door mat. There are no high-signs necessary to enjoy anything in this department. Just enjoy it and help make it enjoyable.

Dear Uncle Frank:

I have been watching the Boys' and Girls' Department with interest for some time. My oldest sister answered one of the contests but did not win, and when I received the check yesterday as one of the winners in the April 22 contest, I sure was a happy boy, and I want to thank you very much. This was my first attempt and I feel there is nothing worth having that is not worth trying for.

Besides being beneficial along the educational lines the Read-and-Win contests will help to make us better farmers and farmerettes when our turn comes and much of our success we shall owe to the Michigan Farmer, and our own department.—Thomas E. Nelson, South Lyon.

I am glad this department interests you so. I always thought we could make such a department interesting. Come again, Thomas.

Some Words About Wishes

By Uncle Frank

SOMEbody said: "If wishes were fishes I'd have a fry." I believe I can have several fries as the wishing fishing was good this last week.

It made me glad to have this contest show that most boys and girls are unselfish, so many of the wishes include a consideration of other people. These are truly the right kind of wishes to have, for there is greater happiness in endeavoring to help others help themselves than in trying to seek happiness for one's self. There is a heap of satisfaction in endeavoring to add to the world's store of happiness through service and in preparing one's self so that this endeavor is made more efficient.

The wishes which, to my mind, best expressed these sentiments, are the following:

By Charlotte R. Stables, Traverse City, Michigan.

"My greatest wish is that I may discover and use wisely the talents with which I have been endowed, for the greatest good to humanity."

By Oliver Angell, Lansing, Michigan.

"My greatest wish is to be an honest, honorable farmer, mentally, morally and physically clean."

By Don Brown, Brutus, Michigan.

"I wish that I may graduate from high school and attend college so that my life will be more useful to myself and others."

By Dorothy M. Hoke, Beverton, Michigan.

"That I may at all times be regarded by everyone about me as their sincere friend and helper."

By Susie McLaren, Millington, Michigan.

"My greatest wish is to finish school and become a teacher so that I may partly repay mother for the great debt which I owe to her."

These five are the prize winners in this wishing contest, the announcement of which appeared in our issue of April 29.

A great many boys and girls showed that their school work and examinations were foremost in their minds at this time for they wished that they would pass their examinations. Many also showed the influence of a christian teaching for they expressed a desire to live a clean Christian life. These are truly laudable desires which can be fulfilled by keeping the mind clean.

A wish with a real modern tendency was expressed by Irene Jobin, Lincoln, Michigan, when she said: "My greatest wish is that I might be as good and great as Abe Lincoln. If I could be, I might be president some day." It is not at all unlikely that when Irene becomes of presidential age that women may be candidates for that office.

Some of the young folks were undoubtedly thinking of Christmas or birthdays when they expressed their desires. For instance, William Neubauer, of Montague, wants a bicycle, while Earl Bowen, of Lapeer, would like a little car, or racer, painted yellow and red. Raymond Loomis, of De Witt, would like a pony as he has a cart for one. In other words, "he has the cart before the horse." Walter Hyde, of Adrian, says he wishes for "a very small horse as black as coal and with a white spot on its forehead and a white foot." He would also like to have a saddle for it.

Several have indicated what they would like to be when they grow up. For instance, in the Smith family, at Fowlerville, Evelyn would like to be a nurse, Naomi a teacher, and Lester a doctor. Ruby Hyde, at Adrian, wants to be an artist, while her sister Helen

wants to go back to Virginia, her birthplace. Wyanda Sanborn, of Morenci, wants to be a good piano player, while Grace Hansen, of Powers, must like outdoor life as she wishes to be a boy so she can milk and do chores instead of washing dishes, etc. Do you think it is necessary to be a boy to be able to do those things, Grace?

Alice Sundstrom, of Felch, would like to be a good writer and gain fame as an author. Osmond L. Beckwith, of Ovid, also wishes to be a writer. He says he wants to be able to write stories as well as Shakespeare and James O. Curwood so he would write about his Collie dog, whose name is Buck. Even though he may not be able to write as well as he would like, I think he ought to write us about Buck, don't you?

Oscar Allen, of Lowell, says that he wishes "that Thursday would come every day. My heart seems gladdened when Thursday comes, and to know that our Boys' and Girls' Department is at home ready to read." This indi-

Our Sport Contest

THIS time I have selected "The Sport I Like the Best, and Why." Here is a chance for the boys to come strong, but the girls should be in on this, too. Please write your contest letter on this subject fifty words long, or less. Maybe your favorite sport is base ball, croquet, swimming, hiking, camping or even work may be a sport for some. Whatever it is, just tell us about it. The five best letters from boys or girls will win one dollar each. Please have your letters in by May 26, and address them to Uncle Frank, Michigan Farmer, Detroit, Michigan.

cates that the boys and girls can get up a real interesting department when they get at it.

Ada Cousineau, of Herron, hopes to live to see the country people have better educational advantages. Esther Kropschot, of Litchfield, wishes that "boys and girls from the city could take a vacation and come to the country and see how beautiful it is. And Grace Timson, living at Alto, asks for "Wisdom; for if I have Wisdom I have everything—health, loves, friends and money." I believe that wisdom put into practice will bring all the things Grace mentions.

Now, it is nice to have wishes, to have dreams for they are essential to a useful and happy life. But to make our dreams come true we must use our backbone as well as our wishbone. It takes real serious endeavor to make laudable wishes come true.

In closing, I wish to say that you boys and girls have fulfilled my wish for this wishing contest. There were many other good wishes received that I would like to comment upon if I had the space.

A NEW CORN CLUB PLAN.

BOYS' and Girls' Corn Club work is receiving a real boost in the vicinity of Washington, Macomb county, through the efforts of the Washington Farm Bureau elevator. This elevator furnishes seed corn for corn clubs in Macomb county under a new plan. The requirements are that a club member sign a contract with the farm bureau to belong to a standard corn club and to grow his corn according to the best practices and to make a standard exhibit at the county fair.



BABY CHICKS

Best Laying Breeds on Earth

Barron English White Leghorns, also American White Leghorns, S. C. Brown Leghorns and Anconas, 25,000 large strong super-hatched chicks every week from Hogan tested flocks culled out Semi-annually by our Poultry Experts.

17 Years of Careful Breeding for Egg Production

You get the advantage of 17 years of careful breeding which brought our flocks up to their present High Standard. Our wonderful winter layers are headed by large, vigorous and Pedigree sired males of exceptional quality.

Thousands of Satisfied Customers Make Big Money

Mr. F. L. Hess, Chicago, Ill., writes: "I averaged 112 eggs a day from 140 of your pullets and sold \$158.00 worth of eggs in February."

Mrs. Wittenbach, Amherst, Ohio, writes: "I sold \$357.30 of eggs in two months from 200 pullets of your stock."

Raise Good Stock and Reap a Golden Harvest

Intelligent chick buyers of today do not take chances with ordinary stock. Our enormous output enables us to sell these money makers at a price that positively cannot be equalled.

We Ship Thousands of Chicks Each Year

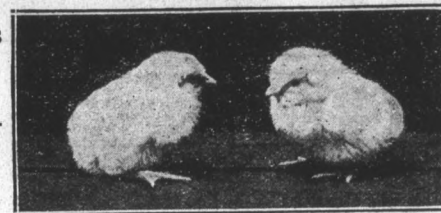
Every shipment is sent by PARCELS POST PREPAID, and we guarantee 100% live delivery. Send for our illustrated catalogue and prices today, it's free.

Wyngarden Hatchery, Box M, Zeeland, Mich.

CHICKS-PULLETS

BABY CHICKS for JUNE DELIVERY.

Free Range Vigorous Healthy Stock.



8 WEEKS PULLETS AT BARGAIN PRICES.

Send in your order NOW.

Tom Barron English White Leghorns Brown Leghorns—Anconas

Live Arrival and Complete Satisfaction Guaranteed

—WE SAVE YOU MONEY—

Send for Free Bargain List Today

Superior Poultry Farms & Hatchery, Box 2053, Zeeland, Mich.

Royal Chix



Guaranteed to Satisfy

Reduced Prices for June Delivery

English Type White Leghorn Brown Leghorns

Get your order in at once for these dates as they will soon be sold at this price. Our chicks are from heavy laying selected breeders, with large combs and deep bodies. Our chicks are hatched right and will live. Safe arrival guaranteed. Order direct or send for our illustrated catalog.

ROYAL HATCHERY, R 2, ZEELAND, MICHIGAN

BUY HUBER'S



RELIABLE CHICKS

Special Summer Prices After June 1st.

By Parcel Post Prepaid. Guarantee Live Delivery.

Don't fail to take advantage of these prices for they will include our Number One Grade Chicks. Our stock is bred for Quality and Heavy Egg Production. Will ship any number of chicks from 25 on up. Our 13th Year, S. C. White and Brown Leghorns and Odds and Ends at 10 cts. S. C. Anconas at 12 cts. R. C. and S. C. Reds and Barred Rocks at 13 cts. S. C. Buff Orpingtons, S. C. Black Minorcas and White Wyandottes at 15 cts. S. C. Buff Minorcas at 20 cts.

30,000 chicks every week. Order direct from this advertisement. Attractive Catalogue Free.

Huber's Reliable Hatchery, East High St., Fostoria, Ohio.

Barred Rocks-Proven Layers And Winners

Official Records 212 to 257 eggs. In Dec. Nat'l. Laying Contest 4 pullets averaged 24.5. I have won 4 special prizes so far at this contest. Some record. Here's your chance to get the best money can buy. Chicks and Eggs. I also manage The Forest-Grove Hatchery, this is where the best English White Leghorns in America are bred. We hatch from only the best flocks which are severely culled and use only pedigreed males. So why take chances when you can buy stock of this kind in Rocks and Leghorns. Special Bargain prices in May and June. Write at once for catalogues.

G. CABALL, Box M, Hudsonville, Mich.

POULTRY

DAY OLD CHICKS
HOMESTEAD FARMS

Michigan people: Here is something in your own state to interest you. Let us send you a description of our Pure Bred Practical Poultry.

Here is an egg producing poultry stock such as the farmer poultry-woman wants. It is proving out in actual eggs in the hands of the farmer poultry people who buy it.

White, Brown and Buff Leghorns; Anconas; Black Minorcas; Barred, Buff and White Rocks; Rhode Island Reds; Wyandottes; Orpingtons.

This stock is culled and bred on the plan of the state Agricultural College, and all the Hens in the Breeding Colonies are practical egg-producing Hens.

If you will send for a description and egg record of this Pure Bred Practical Poultry, you will find stock that it will pay you to buy. Buy Day Old Chicks this year and see the results you will get.

EIGHT WEEKS OLD PULLETS

We shall have 5000 Eight-weeks and Three-months Pullets to sell in May, June and July in all our breeds. Orders can be placed now for these Pullets. We will send you description and Price List.

STATE FARMS ASSOCIATION
Box A47, Kalamazoo, Mich.

Look Guaranteed
Baby Chicks

White Leghorns and Anconas exclusively from the largest chick producing center in the world, remember this is not just ordinary stock. Our females are all selected birds and are bred for egg production. Our flocks are culled by M. A. C. experts, and are headed by vigorous pedigreed males. We are getting testimonies every day from our customers such as this, "The best lot I ever got from any hatchery." One order will convince you. Write for catalog at once.

SILVER WARD HATCHERY
Box 252, Zeeland, Mich.



BABY CHICKS

Eight leading Standard Varieties. Every chick from pure bred, healthy, carefully selected stock. We are not jobbers. We personally know what we are selling. Delivered at your door, parcel post prepaid. 100% live delivery guaranteed. Catalogue free.

MUNCIE BABY CHICK CO.
Lock Box 274, Muncie, Indiana

BABY CHICKS
BOOKLET GUARANTEED

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

DAY OLD CHICKS

White Leghorns \$12 per 100; \$6.50 for 50; and \$3.75 for 25. Barred and White Rocks, White Wyandottes and Rhode Island Reds \$17 for 100; \$9.00 for 50; and \$4.75 for 25. Order from this ad, terms cash with order. Custom hatching 5c per egg, hatchery capacity 9600. Hatchery 4 miles east of Mt. Morris on Mt. Morris road one mile north and one east. Valley Phone No. 14-5. ROSS WADE, Prop. Meadow Brook Hatchery, Mt. Morris, Mich.

Free ROYCROFT Book
B-A-B-Y C-H-I-X

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

Valuable Booklet with first order for twenty-five or more
CRESCENT EGG COMPANY
Allegan, Michigan

Snowy White Rocks Fishel Strain, dandy layers. Eggs \$1.50-15; \$3.75-50; \$7.00-100. All prepaid. Mrs. Earl Dehnhoff, Vanburen, Ohio.

Rural Baby Chicks & Pullets

Tom Barron English White Leghorns and Anconas. Extra selected stock. Summer prices. Catalog free. Rural Poultry Farm & Hatchery, R.1, Zeeland, Mich.

WE BREED

Parks' Strain Barred Rocks and Barron Strain White Leghorns. The two greatest strains of utility poultry in America. Baby chicks for May delivery should be ordered soon. They are very reasonable and the finest of the seasons hatches. Our stock is northern bred for northern conditions. Early hatched pullets now ready to deliver.

PINE BAY POULTRY FARM, Holland, Mich.

SINGLE COMB BUFF LEGHORN

baby chicks. Willard Webster, R. 2, Bath, Mich

WHITTAKER'S RED CHICKS

and Eggs for Hatching. Both Combs. Blood tested for white diarrhoea. Michigan's Greatest Color and Egg Strain. Write for Free Catalog. INTERLAKES FARM, Box 39, Lawrence, Mich.

Baby Chicks \$12.00 per 100 and up

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

CHICKS



From Michigan's Old Reliable Hatchery. American and English White Leghorns, Anconas, Barred Plymouth Rocks and R. I. Reds. Strong sturdy chicks from Grand bred to lay, Hogenized, free range broodflocks. Sent by Insured Parcel Post, prepaid. 100% live delivery at your door. Guarantee satisfaction, or your money back. 15,000 each week, 14th season. Get my low price and valuable illustrated 1922 free catalog and place your May and June orders where you get best quality at lowest prices.

W. Van Appleton, R. 7, Holland, Mich.

Baby Chicks and Hatching Eggs from trap-nested, Park's strain Barred Rocks. Heavy laying strain Rhode Island Reds. English White Leghorns. Quality, not quantity. Prices reasonable. Write us Lakeview Poultry Farm, Box 3, R. 8, Holland, Mich.

Bred-to-Lay White Wyandottes 50 hens laid 1170 eggs in Jan. Eggs \$2.00 per 15; \$10 per 100. EVERGREEN POULTRY FARM, Blanding & Sons, Greenville, Mich.

DAY OLD CHICKS

S. C. English strain White Leghorns, Brown Leghorns, Anconas and Barred Rocks, free and safe delivery guaranteed. C. BOVEN, R. 12, Holland, Mich.

BABY CHICKS White and Buff Leghorns, Barred Plymouth Rocks, Buff Plymouth Rocks, White Plymouth Rocks, Rhode Island Reds and White Wyandottes, 25 for \$5.25, 50 for \$10.00, 100 for \$18.00. FENTON CHICKEN HATCHERY, Box 244, Fenton, Michigan

EGG BRED CHICKS, from high pro-range stock. 19 years experience in hatching and raising White Leghorns, Barred Rocks and Anconas. Circular. Frank Heinz, Box 6, Comstock Park, Mich.

CHICKS—BRED-TO-LAY

S. C. W. Leghorns, S. C. Anconas and Barred Rocks. Quality chicks that please, guaranteed full count, 100% alive on arrival. Price post paid. Circular. SUNNYBROOK POULTRY FARM, Hillsdale, Mich

DAY OLD CHICKS

Order your Baby Chicks now from selected heavy laying strain. Single Comb White Leghorns, English strain Brown Leghorns, Anconas, Reds. Send for price list. Hillcrest Hatchery, R. 2, Holland, Mich

5 to 6 Lb. White Leghorns

Larger hens, better winter layers. Free catalog describes them, tells a new way to cull hens, feeding methods, how to make a mash hopper that won't waste feed or clog, and other information. A. WAUCHEK, Gobleville, Mich.

Barred Rock. Hatching eggs from Parks 200-egg strain from stock direct from Parks best pedigreed pens. \$2 per 15, \$6 per 50, \$12 per 100. Prepaid by parcel post in non-breakable containers. No chicks for sale. R. G. KIRBY, Route 1, East Lansing, Mich.

Baby Chicks and Hatching Eggs

S. C. English White Leghorns. Bred from heavy egg producing strain from our own free range poultry farm. Circulars free. VILLAGE VIEW POULTRY FARM, R. 3, Zeeland, Mich.

Barred Rocks. Hill's heavy-laying prize-winning strain. Eggs 15, \$2.00; 50, \$5.00; 100, \$9.00 prepaid. Lucian Hill, R. 3, Tekonsha, Mich.

Barred Rocks from Rocky Ridge Hatching eggs from Park's Pedigreed Selected Stock \$2.00 per 15. Prepaid by P. O. Circulars orders for day old chicks. W. T. Richardson, Hanover, Mich.

100,000 Chicks 10c & Up. Of pure bred finest egg producing flocks. Built directly from laying and exhibition contest winners hatching eggs. Ducklings. Catalog, 20 varieties. Early bookings avoids disappointment. Beckman Hatchery, 26 E. Lyon, Grand Rapids, Mich.

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

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

Barred Rocks S. C. Reds, W. Wyandottes, eggs, cockerels. Howard Grant, Marshall, Mich.

Buy Chicks Where Quality Counts.

All my flocks culled. You get chicks from nothing but best layers. Safe arrival guaranteed by prepaid parcel post. Ask about P. O. pullets. HERMAN J. COOK, 133 W. Main St., Zeeland, Mich.

Day Old Chicks, S. C. White Leghorns. They are from the big, thrifty, persistent producing stuff for which Macalwhite Poultry Yards are becoming noted. We know we can give you satisfaction. Send for our circular. Macalwhite Poultry Yards, Caro, Mich.

GUARANTEED CHICKS AND PULLETS! Low prices for pure-bred stock. Single Comb English Whites, Brown Leghorns and Anconas, and Barred Rocks. Catalog free. Free Delivery. Fairview Hatchery, Zeeland, Mich. R. 2, John Bos & Son.

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

RHODE ISLAND WHITES

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

BABY CHICKS 1922 delivery now hatching. White Rocks, Buff Orpington, Buff Leghorns, Barred Rocks, R. I. Reds, Black Minorcas, S. C. Anconas. Guaranteed pure bred and live arrival. Postage paid. DURAND HATCHERY, Fenton, Mich.

STRICTS POULTRY FARM

Hudsonville, Mich., R. R. 4, Box M. S. C. English White Leghorns. Official records from 1000's of 208 to 244. Chicks and Eggs. Write for catalogue.

Trap-Nested Strain S. O. W. Leghorns. Heavy winter layers, snow white, high on shank, pelvic bones thin and well spread. Baby chicks and hatching. Have few choice cockerels and pullets for sale, shipped on approval. Leonard Sumner, R. 2, Box 97, Romulus, Mich.

White Wyandottes Winner at Detroit and Ann Arbor 1922. Eggs \$3.00 per 15, \$5.00 per 30. Write for my mailing list. DAVID RAY, Ypsilanti, Mich.

S. C. W. Leghorns Our Specialty

Get the BIG PROFITS, with
Baby Chicks
That Are PURE BRED

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

Sample of many testimonials that show,

JUNE CHIX MAKE BIG PROFITS

Niles, Mich., Feb. 14, 1922

Simon Harkema and Sons,
Holland, Mich.

Dear Sirs:

The 7th of June last year we bought 600 chix from you and had splendid success with them. Raised 550, have 100 that have not been culled, began laying Nov. 15 and are now laying from 60 to 70 eggs per day. 1 cockerel and 2 pullets took 1st and 3rd prizes at our poultry show here at Niles, etc.

Mrs. Mark Feighner,
Niles, Mich.

SIMON HARKEMA & SONS,
Holland, Mich.Wouldn't You Rather Have
Your Chicks HEN HATCHED?

It would not be practicable to set hens on 250,000 eggs, so we are putting them into Mammoth FRESH AIR Incubators that almost beat the old hen at her own game. All eggs from selected flocks and all hatched in BUCKEYE 2's—the machine with the 3 BIG ELECTRIC FANS. Chicks not taken out and shipped till ripe and right, on the 22nd day. They are not cheap chicks, but cheap at the price. Compare them with the hen hatched kind.

	100	1000	April-May
B. P. ROCKS	16.00	160.00	16.00
R. I. REDS	16.00	160.00	16.00
W. WYANDOTTES	16.00	160.00	16.00
B. P. ORPINGTONS	16.00	160.00	16.00

Add 50c for 1/4 and 3/4 hundreds. 100% live delivery guaranteed. Mailed post paid. All Buckeye hatched in forced draft ventilation. Strong, fluffy, lively chicks.

WASHTENAW HATCHERY, Ann Arbor, Mich.

BABY CHICKS

Price List.	Prepaid to You.	Purebred Stock.
Wh. & Brown Leghorns	12.00	6.50
Buff Leghorns	14.00	7.50
Black Leghorns	15.00	8.00
Ancona & Minorcas	15.00	8.00
R. I. Reds	15.00	8.00
Barred Rocks	15.00	8.00
Buff & Wh. Rocks	16.00	8.50
Wh. & SL Wyandotte	16.00	8.50
Buff Orpington	16.00	8.50
Black Langshans	19.00	10.00
Brahmas	20.00	10.50

Start the season right with chicks that can be depended upon to produce profitable heavy egg producing hens. Mail orders to J. KREJCI, 2165 East 86th St., Cleveland, O.

100,000 Reliable Chicks for 1922

Of quality, real value for your money. Anconas, Brown Leghorns, American and English White Leghorns, with the long deep-bodied loop combed kind that lay the large white eggs, from Hogenized selected flocks. Post paid to your door at reduced prices. Get our information and price list free before you buy elsewhere.

PAUL DE GROOT, Prop.
Reliable Poultry Farm & Hatchery,
Zeeland, Mich., R. R. No. 1

OVIE'S BABY CHICKS

Makes Producers! For years we have been building up utility heavy laying strains of exhibition quality so our customers will be assured of success. 12 leading breeds. 10c each and up. Safe arrival guaranteed by P. O. Prepaid. Catalogue free. Ovie's Poultry Farm & Hatchery, 32 State St., Marion, Indiana

S. C. Black Minorca Eggs No. 1 pen \$3.00 per setting. From No. 2 pen \$2.00 per setting. R. W. MILLS, Saline, Mich.

Silver Laced and White Wyandottes. Eggs from five Grand premium matings \$3 per 15, \$5 per 30, parcel post prepaid. C. W. Browning, R. 2, Portland, Mich.

TEN EGGS for hatching from pure Tonlouse Geese, four dollars and fifty cts. (\$4.50), insured parcel post paid. MRS. AMY SOUTHWORTH, Allen, Mich.

W. Chinese goose eggs 40c each, Pekin duck \$1.50 for 8. R. C. Br. Leghorn \$1.50 for 15 \$8.00 per 100. Mrs. Claudia Betts, Hillsdale, Mich.

Baby Chick Prices Slaughtered

English and American Leghorns now \$12.50 per 100 delivered. Anconas \$15.00, Rocks \$17.00. Our flocks cannot be beat for egg production. Our Anconas are Champions. Only one grade—the best. Special prices for larger orders. Catalogue free. Progressive Poultry Farms, Box Q, Holland, Mich.

SINGLE COMB WHITE LEGHORNS

baby chicks and hatching eggs from our flock of high producing hens raised on free range. Write for circular. RALPH S. TOTTEN, Pittsford, Mich.

Hatching Eggs \$5 per 100 \$3 per 45. \$1.25 per 15 prepaid. R. I. Reds, White Wyandottes, W. Rocks, Barred Rocks, W. Leghorns. Healthy heavy layers, farm raised. Please order from ad. Satisfaction. GORET BROS., Corunna, Mich.

S. C. Brown Leghorns. Eggs, Lt. 15-31; 30-51; 50-50; 50-50; 100-34.75; Dark 15-31; 30-51; 50-50; 50-50; 100-34.75. (288 ped. males) 15-17.75; 30-33; 50-54; P. P. guaranteed, pullets, egg bred. Cat. free, Vera Felton, Box 136-M, Gallup, N.M.

MAKE THE BROILERS PAY.

TWO points must be kept in mind if the broilers are to be made to pay well. They must be hatched early and pushed as fast as possible after being hatched. The price for broilers takes a tumble when the ordinary farm crop comes on the market, but as most farm flocks do not mature to broiler weight under about three to four months the well-grown flock in ten weeks will give prime two-pounders and will come in far enough ahead to bring the price. I have watched the prices for a good many years now and not far from the first week in June they start down, though sometimes they do not take the grand drop until the first of July.

To get the broilers in on the best market it pays to fatten, as this will hurry them up some and give that plumpness that commands the best price going and makes for ready sale. They should be penned when they reach a pound and a half and then given all the buttermilk and corn meal they will consume, with some green to keep healthy, and only a small place to exercise in, for they are not to run off the fat now. Corn is the ideal fattening grain and grinding it saves energy and mixing to a crumbling stage with buttermilk makes it more to their liking, and they should be induced to eat just as much as possible. Any milk will serve if buttermilk is not available, but buttermilk is best.—Agnes Hilco.

SORE-EYED CHICKS.

I have over a hundred little chicks hatched out, but when they get about two weeks old an oblong scab forms on the lower lid of their eyes and keeps the eye from opening. When a few days old I greased their heads with salted lard, sifted the mother hens with a louse killer and put them in coops on the barn floor where there is some hay chaff. What do you think caused these scabs, and what can I do for them?—J. F. C.

Chicks may have sore eyes because of dusty litter on a barn floor. We would advise washing the eyes with a solution of equal parts of peroxide of hydrogen and water. Then place the brood coops out on the ground where the chicks can range on a green lawn and hunt for green food. The sunshine, fresh air and range on clean soil covered with green feed will be apt to improve their vitality and clear up the condition of the eyes.

Cold winds early in the spring sometimes cause chicks to catch cold. Possibly the grease on the heads and the louse killer used on the hens caused an infection of the chicks' eyes. We would use the lard very sparingly on chick's head and then only when they have become infested with head lice so that the treatment is needed. We prefer to treat setting hens with blue ointment to keep down lice rather than with the insect powders. A slight dab of blue ointment properly rubbed in will kill all the lice and do no harm to the chicks. The blue ointment is only for the hens and not for the chicks.—R. G. K.

HATCHING DUCK EGGS.

Will you please tell us how long duck eggs can be kept for hatching and if they are all right to set if they are laid in the water?—R. C.

Duck eggs can be saved for hatching as long as three weeks. They should stand on end in a room where the temperature will remain between fifty and sixty degrees. Of course, the fresher the eggs the greater the chances for a large hatch of vigorous ducklings. Eggs laid in the water might prove very satisfactory for hatching but eggs that are washed are not quite as good as those which are clean and dry as some of the natural bloom which protects the eggs is removed by the water.

White Diarrhea

Remarkable Experience of Mrs. C.M. Bradshaw in Preventing 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—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk. If you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

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 instantly 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 nearly three times as much as small. No war tax.

SOME CHICK SUGGESTIONS.

FINE powdered charcoal is useful in keeping down digestive troubles in chicks. It can be bought for about five cents per pound at feed stores or made by running charcoal through a feed grinder. If the charcoal is stored it must be in a rather dry place. It soon absorbs moisture and then loses much of its value to the chicks.

Eye troubles and colds among growing chicks result from overcrowding in dusty brooder houses. As soon as the brooders are removed it pays to install roosts. Even if a few crooked breasts should result from early roosting they are less loss than an epidemic of colds.

Most poultry troubles can be prevented. A great many of them are difficult to cure. There is often a tendency to neglect the poultry and then expect to give them a couple of pills and have everything all right. Successful management of hens consists in anticipating trouble and avoiding it before it occurs, by careful management.

Provide Shade.

Growing chickens need shade where they can rest during the heat of the day. If the birds are in fenced yards it pays to start sunflowers or corn just outside the fence so the shade will reach inside. A double yard is still better. Then a growing crop is easily started on one side and the hens can be turned in when the plants are too large to be injured.

If you provide artificial shade for the chicks be sure it is substantial. They may seek such protection in severe wind or rain storms. If it blows over there may be a serious loss. Colony houses and brood coops can be protected in wind storms by driving down two by fours or strong stakes and spiking to the sides of the houses.

A windbreak of evergreens is very useful on the poultry range during hot weather. Poultry dislike the hot dry winds. Often the windbreak is difficult to start all in one year as some of the trees may die. It pays to fill in the vacant places for a year or two until the solid line is well established.

LIVER ENLARGED.

Just had a fine Rose Comb Barred Rock rooster drop dead. He had been fighting with another rooster; head turned awfully dark so I cut him open and found heart half again as large as it should be, and liver of enormous size. He seemed normal in every way and ate good, but he had no fat inside.—Subscriber.

The rooster had inflammation of the liver and this is often due to an absorption of poisons from the intestines. When the liver is congested a rupture might result from violent exercise, such as occurs in fighting. You have the right idea in performing a post-mortem on a bird that dies suddenly. It helps to clear up any uncertainty and should be more generally practiced among poultrymen.

There is no cure for such troubles in poultry as the condition is not located until the bird is dead or too sick for treatment. They do not occur often when the hens have a balanced ration and plenty of exercise in obtaining their scratch grain.

TURKEYS WITH WORMS.

There was someone that asked what to do for geese that had worms. The answer said to give turpentine, but I have forgotten the amount. I have some turkey hens that are passing small worms with the droppings. They are not sick, but poor. Both are laying.—W. T.

The remedy suggested was equal parts of oil of turpentine and olive oil. A dose of about thirty drops will be sufficient. A tablespoon of castor oil should be given each bird two hours later.

WIN \$1000.00

SEND NO MONEY!



Get the Big Picture Puzzle FREE

Send at once for big clear copy of the small picture puzzle shown here. Complete instructions and full details will be sent at once by first class mail. Do not try to solve puzzle from the picture, but get a good clear copy to work from.

FIND THE MOST OBJECTS BEGINNING WITH "C".

You can find quite a few "C" objects in the above picture even though it is small. Get the big free picture and full details and if you intend to go in for the big prize, send no money but just use the coupon and make your answer eligible for the big prize at once.

FOLLOW THESE RULES

First prize will be given for the largest number of words which correctly name objects shown in the picture beginning with "C". Prizes will be awarded according to the prize list shown here and in case of ties the full amount of the prize will be awarded each tying contestant. Each object can be named only once. Webster's New International Dictionary will be used as authority for all words by the judges, and one credit will be given for each correct word and one credit deducted for each incorrect word. Do not include obsolete, hyphenated or compound words. Winning lists will be based upon all the applicable words submitted and not from any master or predetermined list. Where the singular is used the plural cannot be used and vice versa. Where several synonyms are equally applicable to any object, any one of such synonyms will be given credit. Answers must be mailed by June 24, 1922. The winning answer will be published and a copy sent to anyone sending in a self addressed stamped envelope.

The Prizes

Winning answers will receive prizes as follows:		
If No. 1		If \$2 Worth
Laymore is Ordered		Laymore is Ordered
1st	\$20.00	\$1000.00
2nd	15.00	300.00
3rd	10.00	150.00
4th	5.00	75.00
5th	5.00	40.00
6th	3.00	30.00
7th	3.00	20.00
8th	3.00	20.00
9th	2.00	15.00
10 to 15	2.00	10.00

Laymore "Makes the Lazy Hen Lay" SEND NO MONEY

Thousands of poultry raisers are making big money by using Laymore. This scientific discovery acts on the laying organs of the hen with amazing results. In order to get more people acquainted with Laymore we are putting out this big booster picture puzzle campaign. If no Laymore is purchased 1st prize will be \$20.00; but if you wish to try for the big \$1000.00 prize fill out the coupon and the Laymore will be sent without your advancing one penny. Pay the postman \$2.00 plus the small postage fee and your answer will be eligible for the \$1000.00 prize. The Laymore will be sent at once, but your answer can be mailed any time up to June 24th. Mail the coupon now.

MAYER COMPANY
620 Washington Ave. N. MINNEAPOLIS, MINN.

USE THIS COUPON

MAYER CO., 620 Washington Ave. North MINNEAPOLIS, MINN.

Send me the big picture puzzle and full instructions FREE. Also send me 5 packages of Laymore for which I agree to pay the postman \$2.00, plus postage, on arrival. This order makes the answer I will send in eligible for the big \$1000.00 Prize.

NAME

TOWN

Ancona Baby Chicks

The S. C. Anconas have proved to be the most valuable fowl for the farmer today. We have the Bred-To-Lay Sheppard Strain, and are offering these chicks at extremely low prices, let us have your order and prove to you the wonderful laying ability of our birds.



For those who prefer S. C. White Leghorns we have some of the very best stock obtainable. Get some of our chicks and you will be on the road to success. We pay all Parcel Post charges and guarantee chicks to reach you in first-class condition.

Prices of Selected Chicks for May.

	per 50	per 100	per 500,	per 1000
S. C. Anconas	\$7.00	\$13.00	\$62.50	\$120.00
S. C. White Leg.	\$6.50	\$12.00	\$57.50	\$110.00

Order direct from adv. Prompt shipment. Satisfaction guaranteed.

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



Baby Chicks Pure Bred for 1922

LOOK AND LISTEN WHAT WE SAY AS TO PRICE FOR JUNE & JULY

Bred To Lay and they do it. Buy them, try them and be convinced. Quality means Success. To your door prepaid parcel post. Live delivery guaranteed. Order from this Ad. and save delay in your order. No order for less than 25 chicks.

S. C. White Leghorns, S. C. Brown Leg., S. C. Buff Leg.	12c Each
Barred Rocks, S. C. R. 1. Reds, Anconas	14c "
White Rocks, W. Wyandottes, B. Minorcas, R. C. R. 1. Reds	16c "
White & Buff Orpingtons	18c "
Odds & Ends Broiler Chicks	11c "

Catalogue Free for the Asking

Wolf Hatching & Breeding Co., Gibsonburg, Ohio

Chickens Sick ? Hens Not Laying

GERMOZONE will rid your chickens of roup, colds, canker, sore head, chicken pox, skin disorders, cholera, indigestion, bowel trouble and such ailments—and keep them healthy. For over 30 years the dependable remedy. Get GERMONE, also famous for FREE BOOKLETS, at drug or feed stores. If no dealer, order by card. Postman will collect 75c and \$1.00 sizes. No extra charge. GEO. H. LEE CO., Dept. F-33 Omaha, Neb.

ANCONAS "Superior Quality"

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

Barron White Leghorn pullets 10 weeks old \$1 each. Park's Strain Barred Rock pullets 10 weeks old \$1.10 each. Write for special prices on large lots. ROBT. CHRISTOPHER, R. 4, Holland, Mich.

Extra good chicks. Plan now on more eggs next winter. Order chicks from pure bred record layers. Tom Barron White Leghorns 100, \$12; Brown Leghorns, 100, \$12; Anconas, 100, \$13. Postpaid anywhere, Catalog free. Queen Hatchery, Zeeland, Mich.

BABY CHICKS All popular varieties from selected flocks. Reasonable prices. LITCHFIELD HATCHERY, Litchfield, Mich., J. H. Adams, Owner.

John's Big Beautiful Barred Rocks are hatched, hen raised. 30 eggs \$3.50; 50-\$5. Postage paid. Circulars, Photos. John Northon, Clare, Mich.

PARDEE'S PERFECT E K I N Ducklings EGGS AND DRAKES Price List Free. Box T. Pardee's, Islip, L.I.N.Y.

Rose Comb Rhode Island Reds. Hatching eggs reduced to \$1 per setting. Mrs. Albert Harwood, R. 4, Charlevoix, Mich.

S. C. Brown Leghorns, excellent layers Vigorous farm range. Selected eggs postpaid 15, \$1.25; 30, \$2.45; 2.50; 100, \$5. Floyd Robertson, R. 1, Lexington, Ind.

Top Quality Chicks Spanish, Minorcas, Rocks, Reds, Wyandottes, Orpingtons. TYRONE POULTRY FARM, Fenton, Mich.

WHITE WYANDOTTES 207 egg average. Eggs all matings, \$2.00 per 15, \$10.00 per 100. Cockerels, hens and pullets \$5.00 each. FRANK DELONG, R. 3, Three Rivers, Mich.

Bourbon Red Turkeys We have them. Order your Birds and Eggs now. SMITH BROS., R. 3, Augusta, Mich.

Please Mention The Michigan Farmer when writing to advertisers

BREEDERS' DIRECTORY

Change of Copy or Cancellations must reach us
Ten Days before date of publication



Aberdeen
Angus

Bred
in the
Purple

ACHIEVEMENT

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

Imp. Edgar of Dalmeny

The Sire Supreme

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

WILDWOOD FARMS

ORION, MICHIGAN

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

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

Brookwood Guernseys

Birmingham, Mich.

During the past year, we have completed Advanced Registry with 7 Guernsey Cows—two of which were heifers with their first calves.

The average butter-fat production of these cows was 650 pounds, and three of them were leaders of their respective classes for the State of Mich.

We have for sale a number of good bull calves from these cows and their daughters, sired by Rosetta's Marshall of Waddington, No. 54420, Grand Champion Bull at the Michigan State Fair last year.

Our herd is not large, but it is select. Visitors are always welcome at the farm. Prices are reasonable, considering the quality of the stock.

JOHN ENDICOTT, Proprietor

Registered Guernseys

A fine bull ready for heavy service \$125.00
J. M. WILLIAMS, North Adams, Mich.

For Sale Guernsey Herd Bull

3 yr. old. Sire, Anton's May King sold for \$7,000.00. Dam, Bonnie's Bloom 530 lbs. B. F. Price \$175. Fall bull calves by above sire. Accredited Herd.
GILMORE BROTHERS, Camden, Mich.

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

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

WINNWOOD HERD
Registered Holsteins

It was through the daughters of
Flint Maplecrest Boy that
Sir Ormsby Skylark Burke

Our Junior Herd Sire:

produced the Junior Champion and Reserve Grand Champion Heifer, at the Michigan State Fair this year, in a class of 38.
His get won first in Calf Herd, also first in get of sire, in a class of 13.

A son of either of these great bulls will help the individuality and production of your herd. We have bulls at dairymen's prices, and we also have bulls at the breeder's price, from dams with records up to 38 lbs. of butter in seven days, and 1168 lbs. of butter in one year.

Ask us about a real bull, a Maplecrest or an Ormsby.
JOHN H. WINN, Inc., Rochester, Mich.

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

Wiscogin Farm offers Holstein-Friesian bulls ready for light service. From sire whose 6 nearest dams average 33.34 lbs. butter for 7 days. A.R. O. Dams from 18.33 to 21.51 lbs. Herd under state and Federal Supervision. Oscar Wallin, Unionville, Mich.

The Traverse Herd

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

TRAVERSE CITY STATE HOSPITAL
Traverse City, Mich.

32 Lb. Bull, \$150

Pure bred, registered, federally tested. Six nearest dams average 30 lbs. Good individual, mostly white, 2 yrs. old. Guaranteed healthy and breeder. Priced to sell quickly. Pedigree on request.
ALBERT G. WADE, White Pigeon, Michigan.

Cluny Stock Farm

Offers Cluny Konigen Pontiac Hengerveld No. 254554.
Born September 20, 1920

A son of our Junior Herd Sire Dutchland Konigen sir Rag Apple whose two nearest dams average over 35 lbs. butter and 720 lbs. milk in 7 days. The 7 nearest dams of the bull we offer average over 600 lbs. milk and 28 lbs. butter in 7 days. His dam is an extra good individual with a wonderful typy udder. Her record is 19.774 lbs. butter from 420.8 lbs. milk at 3 yrs. 7 months. Combining the blood of King Segis Pontiac, Pontiac Korndyke, King of the Pontiacs, Colantha Johanna Lad and other great sires he spells Production, Breeding and Type. He has an extra straight top line and is good in every way. A little more black than white. Price \$150.00.

R. B. McPherson, Howell, Mich.

\$100 EACH

Bull calves ready for service. Grandsons of King of the Pontiacs. From dams with A. R. O. Records of 27 to 29 lbs. for seven days—Federal Tested.

J. B. JONES' FARMS
Romeo, Mich.

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

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

Registered yearling Holstein-Friesian bulls priced to sell, 42 lb. breeding, guaranteed O. K. shipped on approval. B. B. Reavey, Akron, Mich.

Registered Holstein Bull

born Nov. 2, 1919. Dam at 8 yr. 22, 920 milk, 895 lb. butter; at 7 yr. 305 days 16,281 milk, 664 lbs. butter. She has three A. R. O. daughters, one above 25 lbs. in 7 da. 99 in 30 days. He is sired by a 24 lb. grandson of Colantha Johanna Lad. Also three heifers 2 yr. old one fresh heifer calf by side. Other two due in May. Bred to sire above. State and Federal full accredited herd. Priced for quick sale. Pedigrees and photo on request. VERNON E. CLOUGH, R2, Parma, Mich.

HERE IS A GOOD ONE

Born June 2d 1920 by Maplecrest DeKol Hengerveld whose three sisters have each produced over 1200 lbs. of butter in a year. Two of them former World's Champions. Bulls dam has just been tested and made nearly 21 lbs. We believe she will make 30 lbs. at her next freshening. Write for pedigree.
E. B. LAX, Kalamazoo, Mich.

Whitney Farms Holsteins

A grandson of Duchess Skylark Ormsby ready for service. Nicely marked bull calves from three weeks to six months of age. These calves have the type and are priced to sell. Herd under Federal supervision. Pedigrees and prices from WHITNEY FARMS, Whitney, Mich.

Registered Holstein Bulls

No cash required. Best of breeding and priced right. Send for full particulars and pedigrees.
MERLE H. GREEN, Ashley, Mich.

\$250 Buys three high grade Holstein heifers, two yrs. old, all milking and one registered Holstein bull, old enough for service. Herd under federal and state supervision.
HENRY S. ROHLFS, R. 1, Akron, Mich.

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

\$75 buys a registered Holstein Bull ready for service. Sired by 29 lb. bull, nearly all white and not a reactor in our herd.
DORUS HOVER, Akron, Mich.



SOTHAM'S
Earliripe
Hereford Beef
Contract

Will insure your getting highest possible prices for young Hereford Bees. Out of the proceeds of such bees you pay no Commissions, Yard or Feed Charges. Produce quality beef at the minimum cost and do away with speculation in feeders. Raise your own and be assured of receiving the highest possible price. This "Sotham's Earliripe Hereford Beef Contract" guarantees you.
"Earliripe Hereford Beef" producers in over fifteen Michigan Counties.
"Earliripe Hereford Beef" is out in many of Detroit's finest markets.
Write for further information or investigate personally.

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

Herefords

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

ALLEN BROS.,

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

Herefords a few choice October bull calves ready to ship. Come get your pick.
E. J. TAYLOR, Fremont, Mich.

Registered Herefords for sale. Cows and 2 herd bulls.
RALPH CALHOON, Bronson, Mich.

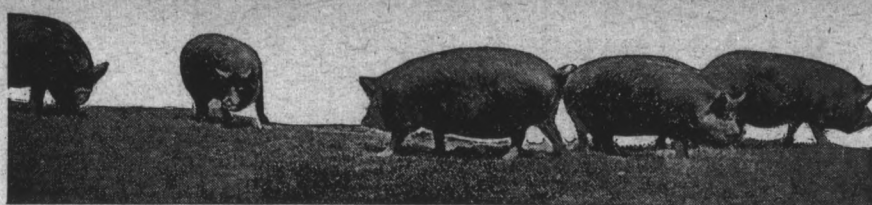
Jersey Thoroughbreds

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

Lillie Farmstead Jerseys Bull calves from B. of M. cows.
COLON O. LILLIE, Coopersville, Mich.

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

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



CLIPPING HORSES.

CLIPPING horses has been practiced in our section for a number of years with varying success. The horses are in some cases clipped closely over their entire bodies with a power machine, and it is claimed that this facilitates shedding and produces greater comfort for the horses during the spring months when they are required to do heavy work in warm weather. However, in some cases it has resulted in some sickness and death of horses because of colds and pneumonia contracted when standing in a cool place after being warmed up to a considerable extent. The lighter breeds of horses, including trotting and driving horses, seem to fall in this class, but it is possible that draft horses, too, are affected just as much.

A system used in some places is to clip the legs and about one-half of the body of the horses, leaving the sides and back covered with the original coat of hair to be disposed of in natural shedding. This appeals to many farmers because it leaves the legs of the horses clean and the hair does not hold so much dirt when the legs get muddy. Clipped in this manner the dirt is easily brushed off and the horses relieved. With the half-and-half treatment a heavy draft horse cannot cool off so quickly, even though warmed up considerably and there is less danger from sickness.

While this style of clipping presents a rather odd appearance, it is not long until the top coat begins to shed and with good rubbing and currying the difference is soon unobservable. The benefits of clipping have been secured without any disastrous effects.—C. M. Baker.

HANDLE WOOL WITH CARE.

THE wool situation has improved materially of late. The market is tending upward and producers are realizing more from their flocks than they have these past two years. This does not mean, however, that rejects and improperly prepared wool will not sell at a heavy discount below clear wool. It is, therefore, more important to the farmer that he exercise care and judgment in getting the fleeces ready for market. Here are some suggestions:

Be certain that the fleeces are dry before the shearing is started.

Provide a clean, well-swept floor for the shearers.

Often fleeces are damaged by the shearers cutting the fibre twice instead of once as they should.

After the fleeces are removed the taggings should be separated and placed in a sack or bundle by themselves.

Each fleece should be tied separately with weathered side down. Use paper fleece twine. Do not use binder twine, nor any other rough twine, since the fibre will mix with the wool and cannot be separated in the manufacturing processes. Use no more twine than is necessary, two strings each way around the fleece being sufficient.

Sack the wool or cover it with burlap or canvas and store in a clean dry place.

CASTRATING COLTS.

AS a rule, the young male colts are castrated when they are about a year old. A few farmers prefer that the operation be postponed until the

animals are two years of age, since it is claimed that the animals will thereby become more masculine. It may be true that some excess in development is thus gained, but if the colts are allowed to go too long they will be difficult to handle and the operation is more apt to result fatally, although ordinarily there is little danger from the operation at any time if performed by a competent person, and the subsequent care of the colt is what it should be.

The operation should always be performed by a reputable veterinary surgeon or by someone who can work skillfully. Perhaps the best season of the year for this work is in the spring, say in May after warm weather has arrived. At that time flies have not yet appeared. The method of operation will, of course, vary with the operator.

After the operation has been performed, with proper regard for clean hands, instruments, etc., the colt should be kept in a clean, roomy stall at night and turned into a pasture field every fair day. It is advisable to feed rather sparingly for two or three days after the operation, though a feed of oats and bran may be given night and morning. Always allow the animal as much fresh water as he desires.

The colt that is allowed to run in a pasture will take sufficient exercise to prevent the stiffening of parts, but if for any reason it is necessary to keep him stabled, he should be placed in a box stall or else be led about the barnyard for a half hour night and morning. When turned out it is well to bathe the wound with a diluted solution of carbolic acid in order to prevent flies from depositing their eggs in the wound. This care should continue until the wound has entirely healed.—W. F. P.

A BIG CROP OF FALL HOGS.

THERE is much evidence that the country will have a large crop of fall hogs to absorb. As noted in a recent number of this journal, federal crop reporters estimate that there were eleven per cent more brood sows on American farms April 1 of this year than at the same date a year ago. Indiana farms report fourteen per cent more, Ohio farms twelve per cent more and Iowa farms twenty-five per cent more. Records at the Chicago market show a close relation between the number of brood sows on the farms in April and the number of hogs marketed during the fall. In about half of the fifteen years, between 1905 and 1920, there were increases of about five per cent in the number of brood sows on hand over the previous year. In the autumn of each year showing an increase of brood sows in the spring, hogs arrived in large numbers at the big packing centers.

On the other hand, there has been an unusually heavy loss in the number of small pigs born this past spring. It is probable that these losses will not offset the increase in breeding sows. Then, too, Europe is short of fats and a return to normal times also may go a long way toward absorbing the surplus animals now developing.

New Yorkers pay fancy prices for dandelions raised under glass. They make good salads, and are no different from the kind that grow in your front yard.

SPRING LAMBS BECOMING NUMEROUS.

SPRING lambs are becoming more abundant each week. Chicago and Omaha received several shipments from California. Kansas City reported the arrival of the first Arizonas, while the bulk of the receipts at St. Louis are spring lambs from Tennessee and Kentucky. Prices upon such lambs have been working lower but fed lambs have been scarce enough to prevent a smash in the market. In fact, both shorn and woolled yearling lambs sold at new high figures for the year at Chicago last week but reacted later. Heavy sheep and lambs are moving to the usual wide discount below light weights which marks the arrival of warm weather. A limited demand for breeding ewes is noted. Prices upon thin fleshed shorn natives two to three years old range around \$6 at Chicago.

CENTRAL MICHIGAN SHORTHORN BREEDERS' SALE.

DESPITE the busy season for farmers and stock men, a crowd of fully 500 was present at the Shorthorn sale and show held at Greenville Fair Grounds on May 10 by the Central Michigan Shorthorn Breeders' Association. Much credit is due to the officers and directors of the association for bringing together a fine bunch of stock and demonstrating the attractiveness of Shorthorn quality in the show ring. Prof. R. L. Mackie, of the Michigan Agricultural College, placed the ribbons during the forenoon and all appeared to be highly satisfied with his judgment.

The sale began at one o'clock. Twenty-five animals, mostly young stock, were sold for a total of \$1,978.50, or an average of \$79.91. Following are the sales:

Females.

Young Dorothy 944205, consigned by M. A. Berridge & Son, of Greenville, sold to John H. McKinley, of Grant, at \$72.

Eureka Butterfly 1074992, consigned by Wm. Hansen, Greenville, sold to A. O. Bosworth, Lansing, \$81.

Mable Welfare, consigned by Hansen, sold to F. N. Bowman, of Shelby, at \$105.

Bonnie Mary 1064931, consigned by Earnest E. Hart, Harvard, sold to R. C. Blackburn, Greenville, \$77.

Maplewood Duchess 5th 730719, consigned by W. F. Kingsbury, of Fennwick, sold to F. N. Bowman, \$44.

Springbrook Pansy 1040215, consigned to T. I. Martin, Ionia, sold to Ferdinand Voss, of Howard City, \$111.

White Rose, consigned by Martin & Warner, Ionia, sold to F. N. Bowman, \$100.

Graceful Rose 1011727, consigned by McLachlan Bros., Evart, sold to Earnest E. Hart, \$141.

Lady Elsie 2d 990340, consigned by E. A. Stokes & Son, of Gowen, sold to Frank R. Davis & Son, Belding, \$78.

Marie's Pride 3d 1078572, consigned by Stokes & Son, sold to Elmer McLinley, Grant, \$59.

Rose of Sharon 715525, consigned by E. F. Tallman, Greenville, sold to E. A. Wansey, Shepard, 72.

White Lassie 1057564, consigned by Tallman, sold to F. M. Bowman, \$77.

Sharon's Maid 1057563, consigned by Tallman, sold to F. M. Bowman, \$66.

White Lily 933034, consigned by Tallman, sold to Olf Andersen, Stanton, \$51.

Lady Gray 762492, consigned by W. B. White, Carson City, sold to R. E. Potter, Greenville, \$62.50.

Missie Young Mary 1030538, consigned by White, sold to Robert C. Wallas, Grant, \$79.

Lady Young Mary 1030537, consigned by White, sold to Wallas, \$96.

Duchess of Bloomer 2d, consigned by White, sold to R. C. Blackburn, \$65.

Lady Snowdrop consigned by White, sold to F. N. Bowman, \$45.

Fancy 641159, consigned by Albert Anderson, Sheridan, sold to E. A. Wansey, \$135.

Males.

Red Boy 1038085, consigned by White, sold to Ora Nickerson, Greenville, \$51.

Count Victor, consigned by McLachlan Bros., sold to L. M. Christenson, of Lakeview, \$95.

Springbrook Master, consigned by Martin & Warner, sold to Preston Esterline, Portland, \$85.

Marquis Hart 1076407, consigned by E. E. Hart, sold to Clyde Harrison, of Greenville, \$62.

Jap Welfare, consigned by Wm. Hansen, sold to Chris Loading, \$62.

Electric light wires hung over nails and oily rags thrown into a corner are two of the things which give the newspapers stories about "fires of unknown origin."

THE MICHIGAN FARMER

West Michigan Holstein Breeder's Annual Spring CONSIGNMENT SALE

AT THE
WEST MICHIGAN STATE FAIR GROUNDS
GRAND RAPIDS, MICHIGAN

FRIDAY, JUNE 2, 1922

48 Head of Good Registered Holstein Cattle

Including two Thirty Pound Bulls, and A. R. O. Cows with records up to 28 pounds.

Here Are a Few of the Good Things We Will Have in the Sale

A five months old grandson of the famous King of the Pontiacs, whose dam and sire's dam are both thirty-pound Cows.

A yearling son of Veeman Pontiac Lake Side Lad, a 34.71 pound Bull whose first 4 daughters to freshen have junior two-year-old records averaging 21.63 pounds of butter in 7 days, and out of a 29.75 pound five-year-old dam. The dam and sire's dam of this young Bull average 102 lbs. of milk per day and 32.24 lbs. of butter for 7 days.

A yearling son of the 34.63 pound Bull, Judge John Lyons and out of a 27.44 lb. Cow.

A yearling son of a 27.59 lb. Cow and two Bull Calves out of good A. R. O. dams and thirty-pound Bulls.

A yearling grand-daughter of King Of The Pontiacs, out of a 30 lb. sire and a 31.62 pound dam.

A considerable number of the Cows in the Sale will be fresh at the time of sale, or nearly due to freshen. Why not attend this Sale and buy your next Herd Sire from among these Good Bulls described above, or if you are looking for Foundation Females, where you will find a better lot to choose from? The most of the Cattle come from "Fully State and Government Accredited Herds" and are sold subject to a 60 Day Tuberculin Re-test, if kept properly isolated where they will not be exposed by other Cattle.

If Interested, Write for Sale Catalog

COL. D. L. PERRY,
Auctioneer

W. R. HARPER, Sales Manager
Middleville, Michigan

"TOP NOTCH" HOLSTEINS

Another Great FOUR PER CENT Bull For Sale

Born April 18, 1921

His Four Nearest Dams Average 30.79 lbs. butter in 7 Days.

His Dam has an Official of 26.95 lbs. Butter in 7 Days, testing 4.32% Butterfat. By actual weight, in her first nine milking periods averaging 349 days each, she gave 101,788 lbs. Milk.

His Sire's Dam and Sire's Sire's Dam are 4% Cows.

His Dam's Sire is by a cow that officially gave 104 lbs. Milk in one day.

His Dam's Dam is a 23.57 lb. cow with 575.8 lbs. Milk in 7 Days.

His Thirteen Nearest Dams are all officially tested.

A splendid individual, nearly half and half in color.

Dehorned and Ringed.

Price \$200.00 f. o. b. Howell.

McPHERSON FARMS CO.,

Howell, Mich.

(Breeder of the only cow in the world to produce 800 lbs. milk in 7 Days having an 800 lb. daughter.)
Herds Under U. S. Supervision

The Tri-State Hereford Association. IN SECOND PUBLIC SALE

At Angola, Ind., Saturday, June 3,

22 COWS

17 HEIFERS

3 BULLS

Sons and daughters of Woodford 9th, Woodford Fairfax, Woodford 100th, Loyal Fairfax, Herman Fairfax, Rex Dorain, Beau Donald 197th, Beau Donald 33d, Paymaster and Wizard Britton (polled). An offering of young cattle, well bred and in good condition. Write for catalogue, come and spend the day with us and be in line for the week of sales following.

J. W. Learned, Hamilton, Ind., Sales Manager

John Letham, Hereford Journal Representative

Fred Reppert, Auctioneer

BARGAIN PRICES

for three young pure bred Holstein bulls, whose dams all have high milk and butter records. Send for pedigrees and prices.
JOSEPH H. BREWER, Grand Rapids, Mich.

\$50 A Year gets a granddaughter of Maple Crest Korn. Bred from best herd in Wayne Co. Cow Testing Ass'n. Federal tested, no reactors.
M. L. McLAULIN, Redford, Mich.

Jersey Bull or Sale Spermfield Owl breeding. Herd tuberculin tested. Satisfaction guaranteed. Age six months.
Fred L. Bodimer, Reese, Mich.

FOR SALE

Polled Shorthorn Cows & Heifers in calf and calf by side. Also a few young bulls. Herd headed by Victor Sultan and Royal Nonpareil.

We can please you in richly bred cattle with quality at farmers' prices.
GEO. E. BURDICK, Mgr. Branch County Farm, Coldwater, Mich.

FRANCISCO FARM SHORTHORNS

FEDERAL ACCREDITED HERD One red Scotch bull ready for service. Two bull calves ten months old. Poland-China weanling pigs ready to ship.
P. P. POPE, Mt. Pleasant, Mich.

Clayton Unit Shorthorn Breeders' Assn. Scotch, Scotch Top and Milking Shorthorns for sale all ages. W. J. Hinkley, Sec'y, Flushing, Mich.

Milking Shorthorns Bull calves for sale. Also 2 cows.
ROSEMARY FARMS, Williamston, Mich.

Shorthorns for sale. White and Roan bulls by Imported sires or from Imported dam.
J. A. BARNUM, Union City, Mich.

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

The Maple's Shorthorns

Kirk Livingston Lad, by imported Hartforth Welfare, in service. Bulls and heifers for sale.

J. V. Wise, Gobleville, Mich.

BIDWELL SHORTHORNS

BUY A BULL

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

BIDWELL STOCK FARM, Box D, Tecumseh, Michigan

Richland Shorthorns

Annual Sale June 21st at the farm. Thirty Heifers - Fifteen Bulls. Best lot we have ever offered. Write for Catalog. Plan to attend. Special prices on Bulls in order to make room for this Sale. Office at

C. H. Prescott & Sons,

Herd at Prescott, Mich.

Tawas City, Mich.

Claradale Milking Shorthorns

We invite the discriminating breeder and farmer, who is in need of a real bull, that will transmit the combine qualities, beef, milk, high in butter fat, type, character, beauty. We do state official milk testing. Come and see us or write for circulars and reasonable prices. F. W. Johnson, Custer, Mich., Mason Co. Box 25

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

Don't you want a good Shorthorn, priced in keeping with the times?
ROBERT MARTIN, R. 3, Woodland, Mich.

HOGS

BERKSHIRES

O. C. COREY,
2423-30 First National Bank Building,
Detroit, Michigan

Brookwater Duroc Jerseys

Gilts bred for summer farrow. Only a few left. Fall gilts - open. Very good. Fall boars. Large enough for light service. Prices reasonable. Mail orders a specialty.

BROOKWATER FARM,

H. W. Mumford, Owner J. B. Andrews, Manager.
ANN ARBOR, MICHIGAN



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

Phillips Bros, Riga, Mich.

Sows & Gilts

bred for July, Aug. and Sept. farrow for sale at reasonable prices. Also a few high class spring and fall boars ready for service and one 2 yrs. old boar, a grandson of Panama Special, at a bargain if you can use him. We guarantee satisfaction. Write for prices and description or better come and see them. Visitors always welcome. Sows bred for spring farrow all sold.

Thos. Underhill & Son, Salem, Mich.

AM SELLING

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

WHITNEY FARMS DUROCS

Well grown fall gilts, either bred or open. A most excellent line of spring pigs at farmers' prices. Several extra fine boars. Stock is insured. Pedigrees and prices from Whitney Farms, Whitney, Mich.

Boars Here is your opportunity to get a real herd boar. We have three boars sired by Faust Top Col. at \$50.00 each. Others at \$25. \$30 and \$35
F. J. DRODT, R. 1, Monroe, Mich.

Woodlawn Farm Duroc Hogs

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

Michigan Farm Durocs

Boars, open and bred sows and spring pigs. Satisfaction guaranteed.
MICHIGANA FARM, Pavilion, Mich.

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

DUROC JERSEYS: A few choice sale.
OAREY U. EDMONDS, Hastings, Mich

Westview Duroc Bred Sows

all sold. Have two spring boars left at a reasonable price. Will book orders for April & May Pigs.
ALBERT EBERSOLE, Plymouth, Mich

Duroc Jerseys heavy boned, low down type breeding stock for sale.
CHAS. BRAY, Okemos, Mich.

Duroc Jerseys Bred Gilts all sold. Now offering some choice fall boar pigs large enough for spring service.
RUSH BROS., Romeo, Mich.

Duroc-Jersey early March pigs, big bone, big litters, either sex, \$12 to \$15, registered. Satisfaction or money back. B. E. KIES, Hillsdale, Mich.

DUROC-JERSEYS Do you want a good Pathfinder boar pig?
E. D. HEYDENBERG, Wayland, Mich.

BIG TYPE CHESTER WHITES

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

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

Chester Whites Spring pigs by Monster, Raleigh B. Choice Prince and others. Money back guarantee. Fred L. Bodimer, Reese, Mich.

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

Additional Stock Ads. on Page 625

LATEST MARKET REPORTS

Tuesday, May 16.

Wheat.

Detroit.—Cash No. 2 red \$1.42½; No. 2 mixed and No. 2 white \$1.40½; May \$1.42½.
Chicago.—No. 2 hard \$1.44½; No. 2 mixed \$1.42; May \$1.45½.
Toledo.—Cash \$1.42@1.43½; July at \$1.26½.

Corn.

Detroit.—Cash No. 2, 67c; No. 3 yellow 65½c.
Chicago.—No. 2 mixed 62¾@63c; No. 2 yellow 63¼@63¾c.

Oats.

Detroit.—Cash No. 2 white 45½c; No. 3, 43½c.
Chicago.—No. 2 white at 40¾@43c; No. 3 white 39½@41¼c.

Beans.

Detroit.—Immediate and prompt shipment \$8.
New York.—Choice pea beans \$7.75; red kidneys \$8.60.
Chicago.—Michigan choice, hand-picked \$7.60@7.75; red kidney, according to quality \$8.60.

Rye.

Detroit.—Cash No. 3, \$1.11.
Toledo.—\$1.09
Chicago.—\$1.09½@1.11.

Seeds.

Detroit.—Prime red clover, cash at \$13.75; alsike \$11.50; timothy \$3.25.
Toledo.—Prime red clover at \$13.75; alsike \$11.50; timothy \$3.10.

Feeds.

Detroit.—Bran \$31; standard middlings \$31; fine middlings \$33; cracked corn \$30.50; coarse corn meal \$28; chop \$24@24.50 per ton in 100-pound sacks.

Hay.

Detroit.—No. 1 light timothy at \$22@23; standard and light mixed \$21@22; No. 2 timothy \$20@21; No. 1 clover mixed at \$17@17.50; No. 1 clover \$16@17; rye straw \$14@14.50; wheat and oat straw \$13@13.50 per ton in carlots.

WHEAT

Owing to the alignment of large grain interests on each side of the market for May wheat at Chicago, conditions in that delivery outcome remains in doubt. About 4,500,000 bushels have been delivered thus far and the rule permitting deliveries on track has been invoked because of a shortage of storage room but the wheat has gone into the hands of exporters and other strong interests who appear to want it and it is claimed that a good deal of it has been sold abroad. The "shorts" are combing all markets for wheat good enough to meet contract requirements and are rushing it to Chicago with a prospect that several million bushels more will be delivered before the end of the month if it can be gotten here in time.

CORN

The corn market has been dragging as the movement to primaries has been above the average for this season of the year and the increase which generally appears around the first of June is showing up in the form of larger country offerings. Industries are buying more corn. Large starch sales have been made to Japan and one plant in Illinois which has been closed down for a month has reopened. The clearances for export which averaged close to 5,000,000 bushels weekly from the middle of January to the first week in April have dropped off 50 per cent in the last month. New sales are being made right along but they do not point to an early renewal of the enormous winter movement overseas.

OATS

Both domestic and export demand for oats is better than a few weeks ago and this grain is disappearing into distributive channels with more celerity. All reports point to a decreased acreage with a high percentage of late-planted grain which generally yields none too well.

HAY

Farm holdings of hay on May 1 were estimated by the department of agriculture at 10,792,000 tons. This is much less than last year when stocks were 18,771,000 tons. The five-year average is 12,417,000 tons. The average condition of hay lands on May 1 was estimated at 90.1 per cent compared with a ten-year average of 89.3 per cent. The production forecast is

103,579,000 tons compared with a ten-year average of 97,331,000 tons. Light receipts remain the chief support of the hay market at most points as buying is limited. At Chicago, for example, receipts in April were only 11,277 tons compared with a four-year average of 21,917 tons. Shipments amounted to 1,316 tons compared with an average of 5,349 cars during the four preceding years.

SEEDS

Stocks of clover seed which were below the average at the beginning of the year are now said to be exceedingly small. There is but little life to the cash demand. Timothy is more active than clover with rather large shipments going into the eastern states.

FEEDS

Limited buying has weakened the feed market although prices have not reacted downward very far. Flour mills are not pressing sales of wheat feeds as their production is light. Much the same is true of corn feeds. Demand for cottonseed meal and linseed meal is small.

BUTTER

The butter market was firm during the early part of last week but became easy again toward the close as it is generally believed that the seasonal readjustment in prices to the new period of flush production is not yet complete. Receipts at the four leading markets increased 25 per cent over the preceding week but the supply was practically all cleaned up and a further small reduction was made in cold storage holdings. The latter are down to about 550,000 pounds at these four cities which is only about ten per cent as much as was available when stocks were at the minimum last spring. Prices on 92-score fresh butter were: Chicago 33½c; New York 36½c. In

Detroit fresh creamery in tubs sold at 34@34½c per pound.

POTATOES

After making marked gains, the potato market has slumped once more under the burden of an unusually heavy supply. Shipments of old and new stock combined in the last ten days were nearly twice as large as a year ago. Northern whites f. o. b. shipping points are quoted at \$1.35@1.40 per 100 pounds sacked and \$1.50@1.60 in the Chicago carlot market. Maine is the chief source of old stock. The new crop in Florida has nearly all been shipped but South Carolina and Louisiana are becoming active. New potatoes comprise about 25 per cent of the supply at present.

POULTRY AND EGGS

The movement of eggs into cold storage continues unabated with 50 to 60 per cent of the receipts at the four leading cities going for that purpose. The available supply is large with receipts running ahead of the corresponding season last year but it is probable that the peak of the movement has been passed. Receipts of dressed poultry at the four leading cities since the first of the year total 67,246,271 pounds compared with 61,378,601 pounds in the same period in 1921. Consumptive demand is large and storage holdings have been cut down to 33,299,000 pounds on May 11 compared with 31,771,000 pounds on the same date a year ago.

Chicago.—Fresh firsts 24¼@25c; ordinary firsts 22@22½c. Live poultry, hens 26c; broilers 38@46c; roosters 15c; ducks 22c; geese 14c; turkeys 25c a pound.

Detroit.—Eggs, fresh candled and graded 24½@26½c; storage 25c. Live poultry, heavy springers at 27@28c; light springers 22@23c; broilers 45@50c; heavy hens 27@28c; light hens

27@28c; roosters 18c; geese 18c; ducks 33c; turkeys 30c.

BEANS

With very few beans available and a good demand, the market advanced sharply to a new high mark last week with \$8.15 paid at the close for choice hand-picked white stock f. o. b. shipping points and a probability that a still higher figure will be reached within a short time. The supply is almost exhausted so that distributors are only able to obtain an occasional car. In order to supply their trade, some Michigan operators are going to California for supplies where white beans are available at \$6.25@6.50. Imports thus far have been small but with the Michigan market on an \$8 basis, offerings of foreign beans should be much more plentiful. Kidney beans are now selling at a slight discount with \$8 the prevailing quotation at Michigan points.

WOOL

Wool prices continued upward last week, Boston reporting an advance of about five cents per clean pound. Seaboard markets were quite active although the supply of wool at these points is small. The range states report an excited trade with wool changing hands as fast as the growers are willing to sell. About 85 per cent of the Oregon clip and the best Utah and Nevada packages have been sold. As high as 42 cents was paid for some fine Utah clips with the medium and coarse wools seldom selling below 25 cents. These quotations show an advance of around 100 per cent as compared with last spring. The rise has been world-wide as British and Australian auctions have been uniformly reported as firm or higher during the last three weeks. The American Woolen Company reports a big increase in orders for cloth.

The Boston market is quoted as follows: Michigan and New York fleeces, delaine unwashed 45@47c; fine unwashed 36@38c; half-blood unwashed 40@41c; quarter-blood unwashed 38@39c; three-eighth blood unwashed 40@41c.

GRAND RAPIDS

Supplies of fresh vegetables were liberal on the Grand Rapids markets this week and prices were slightly lower with the demand active to strong. Openings of the city retail markets bolstered prices and prevented any sensational setbacks. Beetles have commenced working on asparagus and this, assisted by home-canning operations, strengthened the market and all offerings early in the week were absorbed at 50c@51 a dozen bunches, depending on quality. Old potatoes were unsettled with supplies liberal. Farmers were selling at 80c@81 a bushel, mostly 90 cents. Stocks are low, a few growers holding in anticipation of higher prices while others are too busy putting in spring crops to market tubers. Beans are stronger, principally in anticipation of a stronger seed demand at planting time. Grains were steady and offerings light. In live stock cattle were about \$1 per hundred higher but sheep and lambs were off 50 cents. Eggs were steady at 22c per dozen.

DETROIT CITY MARKET

Radishes seemed to be predominant on this market and the tendency is for lower prices as the indications are that offerings will be larger. Asparagus was in good demand and green onions tended to higher prices. Spinach was plentiful. The prices are: Asparagus \$1.25 per dozen bunches; cabbage plants 4@15c per dozen; eggs wholesale and retail 26@35c; green onions 30@50c per dozen bunches; potatoes \$1.15@1.30 per bu; poultry wholesale and retail 28@35c per pound; parsnips \$2 bu; radishes, outdoor \$1@6 per bu. of 40 to 55 bunches; rhubarb outdoor 25@35c dozen bunches; spinach \$1.25 @2 bu; tomato plants various sizes 10 @35c dozen.

COMING SALES.

Holsteins.—June 2, West Michigan Holstein Breeders' Annual Consignment Sale, at Fair Grounds, Grand Rapids, Mich.
Shorthorns.—June 21, H. C. Prescott & Sons, Tawas City, Mich.

Live Stock Market Service

Wednesday, May 17.

DETROIT

Cattle.

Receipts 240 Market strong on all grades.
Choice steers\$ 7.50@ 8.00
Handyweight butchers .. 7.75@ 8.35
Mixed steers and heifers 7.50@ 8.25
Handy light butchers.... 7.00@ 7.50
Light butchers 5.75@ 6.75
Best cows 5.50@ 6.00
Butcher cows 5.00@ 5.50
Common cows 3.75@ 4.50
Canners 2.50@ 3.75
Choice light bulls 6.00@ 6.25
Bologna bulls 4.50@ 6.00
Feeders 6.00@ 6.75
Stockers 5.50@ 6.25
Milkers and springers...\$ 45@ 75

Veal Calves.

Receipts 1119. Market is strong to 50c higher.
Best\$11.00@11.50
Culls and common 5.50@ 9.00

Hogs.

Receipts 2600. Market steady.
Pigs\$ 11.10
Mixed hogs 11.10
Roughs 8.85
Extreme heavies 10.00@10.50

Sheep and Lambs.

Receipts 186. Market steady.
Best lambs\$12.50@13.00
Fair lambs 10.00@11.00
Light to common 5.00@ 8.00
Fair to good sheep..... 7.00@ 7.50
Culls and common 1.50@ 3.00
Spring lambs 16.00

CHICAGO

Hogs.

Estimated receipts today are 16,000; holdover 9,533. Market is steady to strong. Bulk of sales \$10.45@10.95; tops \$11; heavy 250 lbs up \$10.50@10.80; medium 200 to 250 lbs \$10.70@10.95; light 150 to 200 lbs \$10.90@11; light lights 130 to 150 lbs at \$10.50@10.85; heavy packing sows 250 lbs up \$9.60@10; packing sows 200 lbs up at \$9.25@9.65; pigs 130 lbs down \$9.75@10.50.

Cattle.

Estimated receipts today are 11,000. Market steady to strong. Beef steers

medium and heavy weight 1100 lbs up \$8.60@9.25; do medium and good at \$7.60@8.60; do common \$7.10@7.60; light weight 1100 lbs down at \$8.25@9.15; do common and medium \$7.10@8.25; butcher cattle heifers at \$5.75@8.40; cows \$4.75@7.25; bulls bologna and beef \$4.50@6.50; canners and cutters cows and heifers at \$3.75@4.75; do canner steers at \$4.75@5.75; veal calves light and handy weight \$8.25@10.50; feeder steers \$6.25@7.85; stocker steers \$6@7.75; stocker cows and heifers \$4.25@6.25.

Sheep and Lambs.

Estimated receipts today are 16,000. Market mostly 25c lower. Lambs 84 lbs down \$10.75@12.85; do 85 lbs up \$10.50@12.75; do culls and common at \$7@10.50; feeder lambs at \$13@15; spring lambs \$8.50@10.75; ewes \$4.50@7.25; ewes cull and common at \$2 @4.50.

BUFFALO

Cattle.

Receipts 15 cars. Market is steady. choice to prime shipping steers 1400 lbs up \$8.50@8.75; good to choice shipping steers \$8.25@8.50; light native yearlings good quality \$8.50@9; best handy steers \$8@8.50; handy steers and heifers \$7.50@8; western heifers \$7@8; light Michigan butchering heifers \$6.50@7.50; best fat cows \$5.50@6; cutters \$3@3.75; canners \$2@2.50; best heavy bulls \$4.70@5.50; heavy bologna bulls \$4.75@5.25; common bulls \$4@5; best feeders 700 to 800 pounds \$6.50@7.25; medium feeders \$6@6.50; stockers good \$5.50@6; light common \$4@5; best milkers and springers \$60 @85; mediums 35@50. Calves, market is strong with tops at \$11.

Hogs.

Receipts 10 cars. Market is strong. Medium and heavy \$11@11.25; yorkers and pigs \$11.25@11.40.

Sheep and Lambs.

Receipts three cars. Market steady. Top lambs \$12.50; yearlings \$9@11; wethers \$9@9.50; ewes \$6.50@7.50.

For BRIGHT LIGHTS

And Quick Starting

Order a new INTERNATIONAL Old, reliable and internationally famous. Extra sturdy and durable. Fully guaranteed. Thousands of satisfied users. Shipped fully charged, f. o. b. Grand Rapids.

12-Volt 7-Plate. For Dodge, Maxwell, Crow, Elkhart, Regal, Franklin, Buick, etc. \$20.00

You need a good battery now. This is your chance, direct from factory to user. Money back if not satisfied. Agents wanted. Address Dept. A

12-Volt 13-Plate. For Oakland, Vette, Nash, Studebaker, Maxwell, Cole, Chevrolet, Mitchell, Buick, Reo, Hudson, Paige, etc. \$16.00

(Ask us about our International Radio Outfit)



MYERS HONOR-BILT DOOR HANGERS

"MYERS MEANS MERIT" CAN'T get off the track. They stay on—always. This, with patent adjustable feature make Myers Door Hangers absolutely superior. Roller bearings permit easy "push and pull." Twelve styles to fit every need. Myers dealers everywhere handle Myers Door Hangers and the world-famous line of Myers Pumps and Hay Tools. Be sure it's a Myers. See your dealer. Let him point out the Myers improvements. Or write us for catalog. THE F. E. MYERS & BRO. CO. 344 Church St., Ashland, Ohio

Full-Power 14-Cycle Engine

A real 4-cycle engine—small, compact, powerful. Full half horse power, 10 hours on a gallon of gasoline. Air-cooled, can't overheat. Pumps, grinds, milks, runs electric lights, washing machines, cream separators, order sprayers and does other light jobs. A power plant—not just a "farm gas engine" instant pull starter. Meets Underwriters' Specifications.

\$10 With Your Order Balance \$36.50 on delivery. Examine it! "Full-Power" tops all small engines in value, handiness, and power—our guarantee protects you. Send check or money order for \$10 and "Full-Power" 4-cycle engine will be on its way to you. Address Briggs & Stratton Company 7040 Louis Ave., Milwaukee, Wis.

MINERAL COMPOUND FOR SYMPTOMS OF HEAVES

Booklet Free. 53 Pkg. guaranteed to give satisfaction or money back. \$1 Pkg. sufficient for ordinary cases. MINERAL REMEDY CO. 463 Fourth Ave., Pittsburgh, Pa.



Standard \$4.40 per 50 lbs. Bale.

Quality guaranteed full equal any made, and to give satisfaction. 500 ft. to lb. insect proof. Best Pure Manila 1/4 in. Hay rope 5c a ft. Agents wanted. Price List 15 free. A. H. FOSTER CO. Allegan, Mich.

Hennerly Eggs, Broilers Wanted

Ship to Boston, which demands best quality and pays highest prices in the world. Express costs little more than local points. Ask your agent. Prompt returns. Write for weekly quotations. References Nat. Shawmut Bank, Dun or Bradstreet. McArdle Live Poultry & Egg Co., Boston, 16, Mass.

PLANTS 1,000,000; all kinds. Late and early Cabbage, Tomato, Cauliflower, June, July delivery. Leading varieties. Cabbage, mail prepaid: 100, 45c; 500, \$1.15; 1,000, \$1.75. Express: 1,000, \$1.25; 10,000, \$10. Cauliflower, Tomato, prepaid: 50, 40c; 100, 60c. List free. W. J. MYERS, R. 2, Massillon, Ohio

AGENTS, every county, represent varnishes, paints, roofing cements. All or spare time. We deliver and collect. Big commissions paid weekly. Details free. Merit Oil & Paint Co., 610 East 97th St., Cleveland, Ohio.

Sweet Potato Plants Famous Nancy Hall, greatest on earth, and Improved Southern Queen, old reliable, 50c, 100; \$2 per 500. \$3, 1,000, postpaid; \$2.50, 1,000, express. JESSE RUSSELL, R. 2, Bowling Green, Ky.

HAY SHIPPERS, for highest prices bill all cars to The E. L. RICHMOND CO., Detroit.

NATURAL LEAF TOBACCO: Chewing, 5 lb., \$1.50; 10 lb., \$1.50; smoking, 5 lb., \$2. Send no money. Pay when received. Tobacco Growers' Union, Paducah, Ky.

Homespun Tobacco 5 lb., \$1.25; 15 lb., \$3. Send no money. Pay when received. FARMERS' ASSN., Jonesboro, Ark.

Collie Puppies Either sex. Eligible to registration. Bred from trained workers. Write for prices. Charles Beatty, Milford, Mich.

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

CROP REPORTS FAIRLY GOOD.

THE condition of the winter wheat crop as given by the government was slightly higher than the unofficial returns. Average condition was 83.5 per cent which compared with a ten-year average of 87.1 per cent. The crop has improved greatly since December when condition was 76 per cent. It is believed that since May 1 further improvement has taken place although some reports have been less favorable in the last few days.

The acreage abandoned was estimated at 14.4 per cent, or 6,446,000 acres, compared with an average of 10.4 per cent. In the area affected by drouth last fall, abandonment was high, Texas losing 41 per cent, Kansas 27 per cent and Oklahoma 24 per cent. The forecasted yield, assuming average conditions until harvest, is 584,793,000 bushels, or about the same as was harvested last year.

Based on a condition report of 91.7 per cent on May 1, the rye crop was estimated at 79,152,000 bushels, which compared with a ten-year average of 57,060,000 bushels. Only in 1918 and 1919 were larger crops harvested.

The lateness of the spring is shown by the fact that on May 1 only 63.5 per cent of the spring plowing had been completed compared with a ten-year average of 70 per cent and only 53.6 per cent of spring planting was finished, compared with an average of 57.8 per cent.

Foreign crop conditions are a mixture. United Kingdom needs warm weather, North Africa rain, and Germany dry weather. Northern Italy is too wet, southern Italy reports drouth. France reports improvement but is still in bad shape. Excessive rains have done heavy damage to the Chinese rice crop and that country may need large imports of wheat again this year. India's crop is turning out better than expected and Australia's drouth has been relieved, so that planting of the next crop can progress favorably.

A. M. Smith, the retired minister who has made such a success of the breeding industry at his Lake City farm in Missaukee county, has shipped his prize cow, Norman Red Nose, to the National Guernsey Sale at Wheaton, Ill. This cow recently broke the Guernsey world's milk record in Class G, contest for two-year-old cows.

Special Clearance Sale Lally Lighting Plants

I have on hand for disposal stock of West Michigan Lally Light Company. These are new, first class unused plants except as noted. All fully guaranteed in perfect condition, standard three months warranty as to workmanship and materials.

10 1250-watt plants new
10 1000-watt plants new
5 1250-watt slightly used
5 1000-watt slightly used
Prices \$75.00 up. Also some guaranteed second hand water systems at big savings. This is your chance—a fully guaranteed plant at a real saving. Terms to responsible parties. Write at once for complete information to Edward B. Strom, Attorney at Law 450 Houseman Bldg., Grand Rapids, Mich.



Bee Hives, Section Boxes

Comb foundation, Smokers, etc. Complete outfits for beginners. Agents for the A. I. Root Company, in Michigan. Send for catalog. Beeswax wanted.

Berry Baskets and 16 quart crates. A grade wood quart baskets, and waxlined paper baskets. Special offer of 200 waxlined paper baskets postpaid for \$1.70, to towns within 150 miles of Lansing.

Send for Price List.

M. H. HUNT & SON, Box 525, Lansing, Mich.

Limestone

is Nature's method of neutralizing all kinds of soils for good crop raising. Write us for prices in carlots.

The France Stone Co., Toledo, O.

Wanted Position Having sold out large farms, we desire to place our superintendent. He made good in every way. Is 35 years of age, widower, no children. Is man of finest character, well educated, a real man 5 ft. 200 lbs. and a hustler. Address him, Herman R. Franzen, Ephra, Pa.

'35 FACTORY TO FARMER

DIRECT PRICE
Was \$60 300-POUND CAPACITY

UNITED STATES CREAM SEPARATOR

Can you imagine the low price of \$35 for one of the world's champion cream-getting United States separators? Our new plan of selling direct to the farmer gives you this famous 300-pound capacity machine for practically half the former dealer price of \$60. Other models down \$22 to \$50. Picture shows our 500-pound capacity machine.

REGULAR U. S. STURDY VALUE
—NOT OHEAPENED IN ANY DETAIL

Every United States Separator sold at the new low factory-to-farmer price is exactly the same in every detail as the machines that have made the United States the acknowledged leader in the field of QUALITY cream separators. Every working part of the "United States" is made with watch-like exactness and precision. Hence the wonderful U. S. bowl turns so smoothly and easily that the weight of the handle turns it. Only 42 turns per minute required—against 50 to 60 turns of others. Discs assemble in ANY order—a big help in the day's work. One piece sanitary frame. Crank or power can attach to either side.

Clip
and
Mail
This
Ad

Before you even consider ANY cream separator, clip this ad and mail to us. We will send our complete folder "Proving It to the Dairy Farmer," and tell the full story of the tremendous price cut made possible by selling the famous "United States" direct to you.

Vermont Farm Machine Corp. DEPT. MF
Bellows Falls, Vermont



PRICES
DROPPED
\$22.00
to \$50.00
LOWER
THAN
PRE-
WAR
PRICES

30 DAYS' FREE TRIAL

FARQUHAR CIDER PRESS

This Hydraulic Press will work up your apple culls into profitable cider. You can also make money pressing for your neighbors.

Our high pressure construction gets all the juice with minimum power and operating expense. Sizes for individual and merchant service. Also a complete line of Pumps, Racks, Cloths. Catalog and instructive booklet "By-Products of Fruit" free to orchardists on request.

We also make Engines and Boilers, Sawmills, Thrashers, Potato Diggers, Grain Drills, Cultivators. Write for Descriptions. A. B. Farquhar Co., Ltd., Box 112, York, Pa.

24.95 American CREAM SEPARATOR

On trial. Easy running, easily cleaned. Skims warm or cold milk. Different from picture which shows larger capacity machines. Get our plan of easy MONTHLY PAYMENTS and handsome free catalog. Whether dairy is large or small, write today. AMERICAN SEPARATOR CO. Bainbridge, N. Y. Box 7051

Farms and Farm Lands

\$1200 Secures Equipped Farm Between Detroit and Chicago

Owner unable to operate longer, reduces price this fertile 120 acres over \$3000; a big bargain at former figure now a knockout; all advantages handy; 35 acres rich loam tillage, 15-cow pasture, woodlot; orchard, good 2-story house, 76-ft. basement barn, poultry house, etc. For quick sale horses, cows, poultry, tools, crops included, only \$7800, with \$1200 cash. Details page 92 Illus. Catalog 1200 Bargains. FREE. STROUT FARM AGENCY, 814 BC Ford Bldg., Detroit, Mich.

A Real Farm at a Fair Price—\$54 acres of fertile land in Lowndes County, Georgia. Over 200 acres in cultivation and pasture; \$2,000.00 worth of merchantable timber; good fences; fair buildings; mild winters; long growing season; all crops do well; particularly fine for dairy farming or hogs; pork can be made cheaper than in any other part of the United States. Reason for selling—owners cannot live on or look after it. Address J. J. NEWMAN, Valdosta, Georgia.

\$1000 Secures Equipped Farm 40 Acres On Improved Road

Handy RR. town; 35 acres tillage; woodlot; orchard; good 7-room house, barn, poultry house. Owner called away, includes horses, 3 cows, heifer, poultry, machinery, tools, \$3350, only \$1000 cash. MILTON S. HOPKINS, Coopersville, Mich.

Poultry - Dairy - Truck - General Farms

Fully equipped and unequipped. Priced from \$1500 up. Easy terms. Rich fertile valleys; well watered by brooks and springs. Write your wants or come and see us. Best markets. Good roads. Schools. Churches. Interstate Farm Agency, Waverly, N. Y.

WANTED To hear from owner of land for sale.

O. K. HAWLEY, Baldwin, Wisconsin.

HOGS

Chester Whites All sold. Spring boars at weaning time, \$15. ALBERT DORR, Clinton, Mich.

O. I. C. & Chester White Swine. Strictly Big Type with QUALITY. We are sold out of everything but a few choice fat gilts. Will book orders for Spring pigs. Of the best Prize winning blood lines. Will ship C. O. D. And record them free in purchaser's name. NEWMAN'S STOCK FARM, R. 4, Martlette, Mich.

O. I. C.'s. One last fall boar. 8 last fall gilts bred for Aug. and Sept. farrow and this spring pigs not akin. The big kind with good quality. Registered free. 3/4 mile west of depot. Ottizans phone. Otto B. Schulze, Nashville, Mich.

O. I. C. fall gilts ready to breed. Orders booked for spring pigs. Write or call and see our herd. We ship C. O. D. and Register free. GEO. M. WELTON & SON, Middleville, Mich.

O. I. C. and Chester White. One extra good yearling for sale. We ship C. O. D. register in buyer's name and guarantee satisfaction. John C. Wilk, Alma, Mich.

O. I. C.'s Choice Aug. and Sept. open gilts also booking orders for spring pigs. CLOVER LEAF FARM, Monroe, Mich.

O. I. C. Bred gilts all sold. Orders booked for spring pigs. A. J. BARKER & SON, Belmont, Mich.

O. I. C. Bred sow's all sold. Booking orders for spring pigs. H. W. MANN, Dansville, Mich.

O. I. C. pigs at very reasonable prices for June and July shipment. O. J. THOMPSON, Rockford, Mich.

L. T. P. C. Fall Boars

at bargain prices. Fall gilts open or with breeding privilege. Write or see them. A. A. FELDKAMP, R. 2, Manchester, Mich.

Big Type Poland China Spring boars at \$15 each. Sired by Clansman Buster and Hovers Liberator. Also gilts bred for Sept. farrow at \$40 each. All stock shipped on approval. Come and see them or write DORUS HOVER, Akron, Mich.

For 30 years we have been breeding Big Type Poland China hogs on the same farm. We have sold over 100 head each year for the last 15 years for breeding purposes. There's a reason! The farmer has found our kind very profitable. We now offer 25 sows and gilts bred for summer farrow \$30-\$50. JNO. C. BUTLER, Portland, Mich.

L. T. P. C. Gilts bred for Spring litters all sold. Am offering very choice Summer Gilts bred for June and July litters also Fall Boars and Spring Pigs. Clyde Fisher, R. 3, St. Louis, Mich.

L.T.P.C. \$15, \$20 & \$25

Spring pigs with real breeding at the above prices. We are also offering a few choice fall gilts bred for summer farrow. Hart & Cline, Address F. T. HART, St. Louis, Mich.

Large Type P. C.

Largest herd of individuals in state. Everything sold. Nothing to offer until spring pigs are ready to ship. I thank you. W. E. LIVINGSTON, Parma, Mich.

Pig Type P. C. some very choice boars double immune, out 1100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

BIG TYPE POLAND CHINAS

Bred gilts for sale. Choice individuals of rich breeding at prices within your reach. Come see them or write. WESLEY HILE, R. 6, Ionia, Mich.

Large Type Poland Chinas. Some real classy stock carrying Mastodon Clansman and Yankee blood. Everything registered, prices right. ERNEST E. REA, Hillman, Mich.

Large Strain P. C. nothing more for sale at present, I thank you. H. O. SWARTZ, Schoolcraft, Mich.

Big Type P. C. Boar pigs that can't be beat in Mich. Sired by Big Bob Mastodon and Peter A Pan, 50 head to pick from. C. E. Garnant, Eaton Rapids, Mich.

BIG TYPE Poland Chinas, leading strains at lowest prices. Both sex, all ages, and bred sows and gilts. G. A. BAUMGARDNER, R. 2, Middleville, Mich.

LEONARD'S B. T. P. C. Herd headed by Leonard's Liberator. Orders booked for bear pigs at weaning time. Call or write E. R. LEONARD, St. Louis, Mich.

Hampshires book your order for spring boar pigs now. A few gilts, now ready for summer farrow. JOHN W. SYNDER, R. 4, St. Johns, Mich.

SHEEP

A Real Bargain at Kope Kon Farms

We offer 40 big healthy yearling Shropshire and Hampshire Rams all registered at \$25.00 each. Come or write while the picking is good. S. L. WING, Coldwater, Mich.

WOOL WANTED

Write for our prices before you sell your wool!

VREELAND FUR CO.

445 JEFFERSON AVE., WEST, Detroit, Mich.

PROTECTING THE EARLY PLANTS FROM FROST.

NOBODY can tell—not even the weatherman—just which way the thermometer is going to go on a seemingly well-behaved day in April. Hence the necessity for protecting plants set out of doors before the danger of frost is over.

To prevent frost damage, and also to hurry the plants along, quite a few gardeners are using the device shown. The writer was first introduced to this



device on the grounds of the Indiana Experiment Station, but has since met it in various places. It is made of pasteboard, and the glass is held in place by a wire.

"The device costs a few cents, but it saves me more than it costs," one man said to me. "It takes the frost risk out of early gardening. Each one of these is really a miniature coldframe." —E. A. Kirkpatrick.

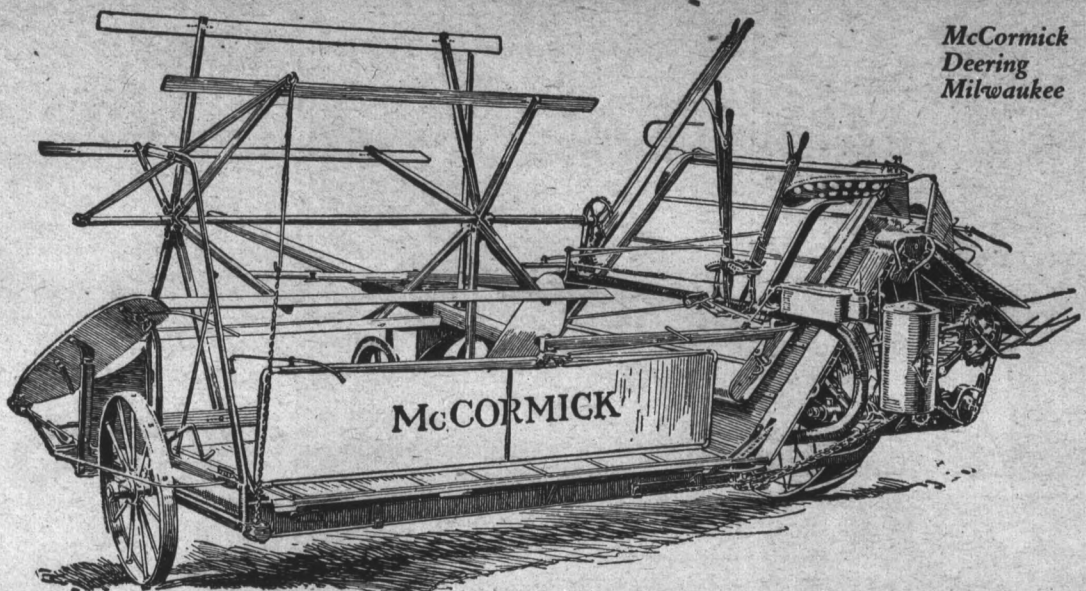
DO RABBITS INJURE TREES?

ABOUT every so often we read of crusades to exterminate rabbits because of the damage they do (?) by gnawing trees. Not long ago two leading states instituted campaigns of rabbit extermination because of misinformation on this subject. Every known means, including the wholesale use of ferrets, was used—anything to get rid of the whole bunny tribe.

Did you ever see a rabbit "girdle" a sapling? I never did, and I've been around rabbits and in the woods considerably. Rabbits eat bark, but not that of standing trees—not to any serious extent. The varying hare of the north likes the bark of small poplars and other young trees, but he gets it from fallen trees; and for a very good reason: He cannot feed successfully with his neck in a twisted position. So how could he girdle a tree?

The proprietor of one of the largest nurseries in western New York states positively that rabbits do not girdle young fruit trees. He says that the damage to young orchards is entirely the work of field mice, and that in his experience covering many years, he has never known an instance where rabbits have been the offenders. Examination of the teeth marks will decide the matter in every case, and it certainly is unjust to make accusations without reliable information.

Along the streams of the Bad Lands, the limbs of cottonwood trees are sometimes entirely stripped of bark. Strangers look at the dying trees, and try to conceive a tree-climbing rabbit! It seems that poor bunny has to stand responsible for all kinds of injuries to trees. Experienced woodsmen know that the nakedness of those cottonwoods is chargeable to porcupines. I suggest that the orchardist remember the existence of field mice—meantime wrapping the bases of his young fruit trees with paper—before he raves against rabbits; L. E. EUBANKS.



McCormick
Deering
Milwaukee

Invest in the Crop-Saving Binder of 1922

Today's McCormick, Deering, and Milwaukee binders are marvels of skill and good workmanship, improved in many ways over the binders of ten years ago. The better steels and bearings in them, and refinements in construction, make for longer service, for lighter draft, and for satisfaction.

At your first opportunity, look over the binder of 1922. Study the outside reel support; the grain-saving floating elevator, the new durable woven straps for the canvases, the perfectly working bundle carrier, and the tongue truck that steadies the load and carries half of it. The new McCormick, Deering, and Milwaukee grain binders are capable of

harvesting economies that invariably surprise the new owner.

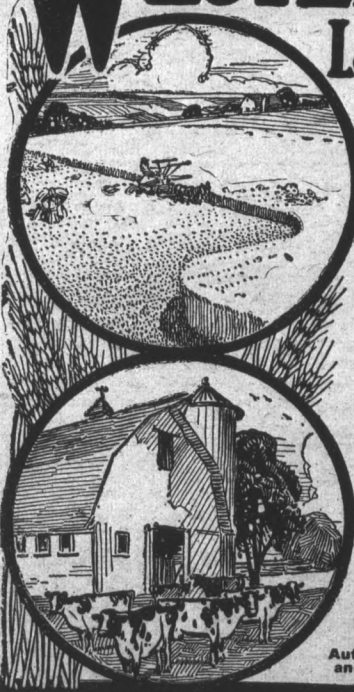
Will your binder stand the test this season? Harvest is no time to be risking trouble with an old machine, too-long repaired, outdated, and outworn.

If any doubt is in your mind, invest in the crop-saving machine sold by your McCormick-Deering Dealer. Remember that you will find the new McCormick, Deering, or Milwaukee the more efficient for each added year of repairing given an old binder. And safeguard the harvest by the use of strictly high-grade twine (McCormick - Deering - International). Then you will be ready for such harvesting difficulties as rough fields, long, short, lodged, and tangled grain, etc.

INTERNATIONAL HARVESTER COMPANY

Chicago of America USA
(Incorporated)
92 Branch Houses and 15,000 Dealers in the United States

WESTERN CANADA Land of Prosperity



offers to home seekers opportunities that cannot be secured elsewhere. The thousands of farmers from the United States who have accepted Canada's generous offer to settle on FREE homesteads or buy farm land in her provinces have been well repaid by bountiful crops. There is still available on easy terms

Fertile Land at \$15 to \$30 an Acre
—land similar to that which through many years has yielded from 20 to 45 bushels of wheat to the acre—oats, barley and flax also in great abundance, while raising horses, cattle, sheep and hogs is equally profitable. Hundreds of farmers in western Canada have raised crops in a single season worth more than the whole cost of their land. With such success comes prosperity, independence, good homes and all the comforts and conveniences which make life worth living.

Farm Gardens, Poultry, Dairying
are sources of income second only to grain growing and stock raising. Attractive climate, good neighbors, churches, schools, good markets, railroad facilities, rural telephone, etc.
For illustrated literature, maps, description of farm opportunities in Manitoba, Saskatchewan, Alberta and British Columbia, reduced railway rates, etc., write

J. M. MacLachlan,
10 Jefferson Ave., East, Detroit, Mich.

Authorized Agent, Dept. of Immigration and Colonization, Dominion of Canada

150 ACRE
FARMS IN
WESTERN
CANADA
FREE

Why Not PUT THIS NEW MILL ON YOUR OLD TOWER

ALBION

Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only main pinion bearing subject to wear. This is oilless, and easily replaceable. Covers by dependable weight without springs. Fits any 4-post steel tower. Why not shorten your chore hours now with a good Windmill? This is your chance—F. O. B. Albion. Erect it yourself. Ask your dealer, or write direct to

Union Steel Products Co. Ltd.
No. 528 N. Berline Street,
ALBION, MICHIGAN, U. S. A.

Ditch, Terrace Special Offer

25 MARTIN.
Farm Ditchers and Graders
FREE — Get This Offer
Get new ditches for drainage or irrigation, clean old ones, build best field terraces. For horses or tractor. You may get a MARTIN without cost this year. Write for our offer. Prices slashed.

Owensboro Ditcher & Grader Co.
Box 315 Owensboro, Ky.

30 DAY SALE OTTAWA

engines sold direct from factory. Cash or Easy Terms.
Try 30 Days At 1914 Prices.
10-Year Guarantee. Write for Free Book and Big Sale Offer.

OTTAWA MFG. CO.
13840 King St., Ottawa, Kane.
Distillate Engines.

Please Mention The Michigan Farmer When Writing to Advertisers