

MICHIGAN FARMER

AND
LIVE STOCK
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DETROIT, MICH., SATURDAY, JULY 14, 1923

ONE YEAR \$1.00
FIVE YEARS \$3.00



Guaranteed for Life!

McCormick-Deering Tractor Crankshaft and Main Bearings

THE crankshaft and the crankshaft ball bearings of the McCormick-Deering 10-20 and 15-30 tractors are guaranteed against breakage, not for a month or a year but *during the entire life of the tractor.*

This guarantee covers breakages from any cause whatsoever, and in the case of the ball bearings guarantees them from wearing out or burning out during the life of the tractor.

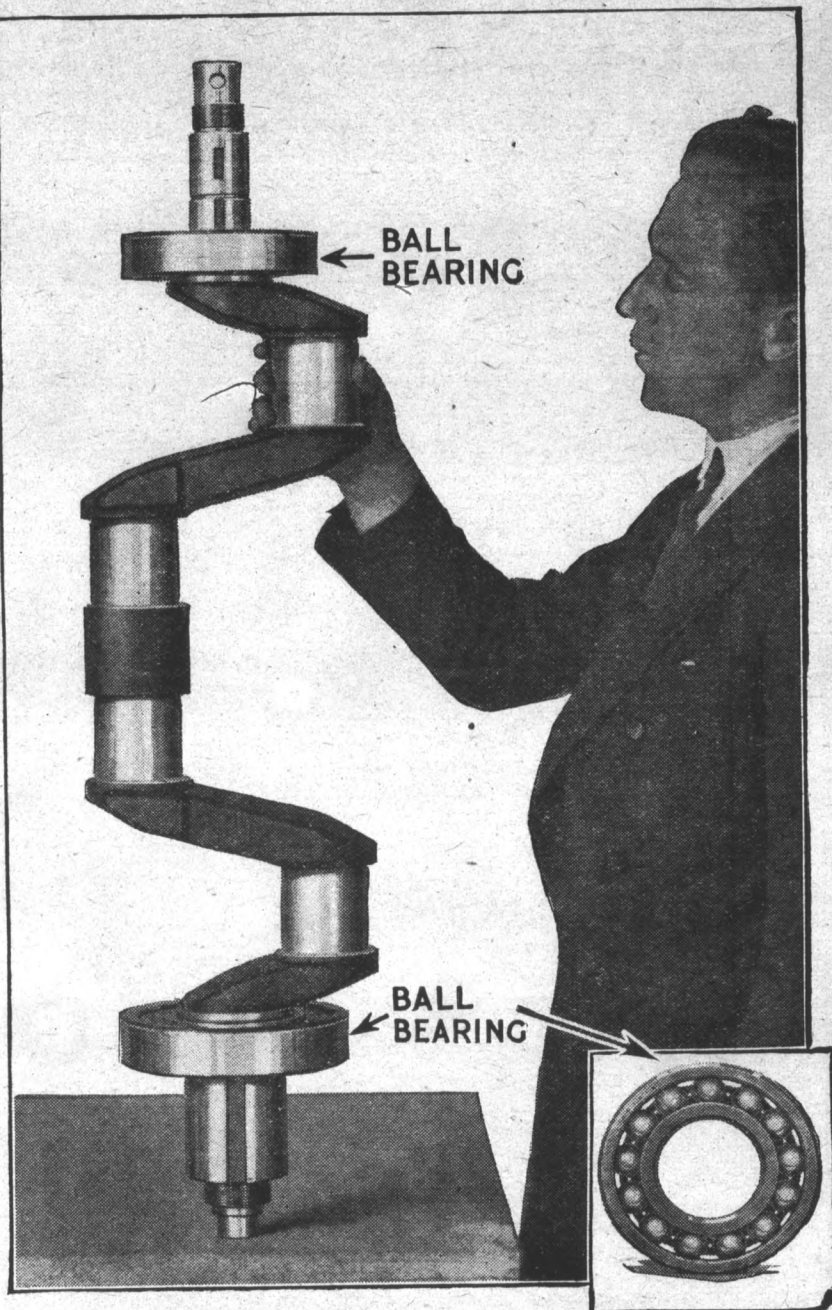
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The seller agrees to replace free the Two-BEARING CRANKSHAFT in any 10-20 or 15-30 McCormick-Deering tractor should it break during the life of the tractor, provided the broken parts are promptly returned to the factory or one of the branch houses.

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VOLUME CLXI

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
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A Practical Journal for the Rural Family
MICHIGAN SECTION THE CAPPER FARM PRESS

QUALITY
RELIABILITY
SERVICE

NUMBER TWO

All Set for Short-time Loans

Machinery for Bringing to Farmers the Advantages of the Intermediate Credit Act Is Now in Place and Properly Oiled

ARRANGEMENTS have been completed for intermediate farm credit operations under the new agricultural credits act which may ultimately solve the problem of giving agriculture credit accommodation suited to its special needs.

The act provides for the establishment of a federal intermediate credit bank in each city now having a federal land bank. This has been done. Officers and directors of the land banks are ex-officio officers and directors of the new banks. Preliminary rules have been laid down governing interest rates and methods of making advances, and applications are pending for charters creating national agricultural credit corporations to take advantage of the facilities provided.

Few Loans Made to Date.

To date the volume of business done by the new banks has been small. This is accounted for in part by the continued operation of the War Finance Corporation, whose life was extended to February 29, 1924, by the same law that created the intermediate credit banks. It is also due in a measure to the prevailing easy condition of the money market, and to the fact that the Federal Reserve Banks are now permitted to rediscount agricultural paper for periods up to nine months.

It is expected the business of the new institutions will increase as their facilities become better known. Co-operative associations especially are likely to find them useful.

But the utility of the banks will not be wholly indicated by the business they do. They are chiefly valuable as a reserve source of credit to which agriculture may turn in an emergency. Their mere existence, as a potential credit agency, may prove an inestimable benefit, say officials of the department of agriculture.

In support of this view the experience of the War Finance Corporation is cited. A considerable amount of the \$457,070,378 of advances approved by the corporation up to May 15 last has never been drawn out by the institutions accommodated. Apparently the knowledge that funds were available did all that was necessary. It gave confidence and opened up private sources of credit, in a way that enhanced the value of the corporation's service beyond anything measureable by the amount of money actually advanced.

Use Existing Financial Machinery.

Rules laid down for their operation provide facilities whereby advances may be obtained by banks, trust companies, cooperative credit associations, agricultural credit corporations, and incorporated live stock loan companies. Loans are not made available direct from the intermediate credit banks to individuals.

It is considered impracticable to establish a personal credit system which would reach farmers in all parts of the country without the use of banks or other organizations as intermediaries. The plan is to make use of exist-

ing machinery as far as possible. Co-operative associations of farmers are the only channel through which individuals can get funds without the intervention of a bank or other credit agency. It is not thought that in practice this condition will put any difficulty in the way of farmers getting the kind of credit which the intermediate credit banks have been created to supply.

Under the old system the trouble has been that intermediate term credit, though indispensable for the crop or live stock turnover, has been obtainable only by the renewal of short-term loans. In time of stringency difficulty has arisen about renewals, because the loaning institutions themselves have been under pressure for liquidation. Now there will be no such pressure on them for the liquidation of rediscounts obtained from the intermediate credit banks. In consequence, the farmer in turn will be relieved of pressure to pay loans before his crops or live stock have matured. In fact, the farmer likely will

get as much benefit from the contemplated indirect loaning through financial institutions as he could get from any other system.

Fixes Rate of Interest.

As a starter, the federal farm loan board has fixed five and one-half per cent as the rate on rediscounts at the intermediate credit banks. The spread over this rate on loans to the farmers must not exceed one and one-half per cent. It has also laid down the rule that, for the present, no paper will be taken with a maturity longer than nine months. Loans can be made now against grain, wool and live stock. This list of commodities will be expanded when warehousing conditions and other necessary conditions permit.

It is expected that the requirements will be liberalized as the board finds it possible to get rid of the initial difficulties that necessarily occur in getting the machinery of the banks into working order. Much will depend on the attitude adopted by country banks. It is not doubted that many of them will recognize the opportunity afforded

them to meet the intermediate credit needs of farmers, without tying up their own loanable funds in non-liquid paper.

Where banks fail to cooperate in making the new system effective, it is probable, say government officials, that special farm credit institutions will be formed to bridge the gap between the individual farmer and the new source of intermediate term credit.

Although the agricultural credits act makes provision for a capital of \$5,000,000 to be furnished each of the intermediate credit banks, only \$1,000,000 has been advanced to each of them so far. This was done because it was recognized that the War Finance Corporation will continue making intermediate term loans until next February, and because, in the present highly liquid condition of the commercial and the federal reserve bank, there is no prospect of an early heavy demand for additional agricultural rediscounts. Moreover, as short-term credit must always form a large part of the farmer's need for financial accommodation, it is felt that the demand for intermediate-term credit may not be as large as was expected.

The important thing, according to department officials, is that agriculture now has a guaranty against sudden pressure for liquidation, a safety credit reservoir in time of need. It is believed that before the next time of acute financial stringency comes, enough experience will have been gained in running the intermediate credit banks to make them entirely adequate against such conditions as those that played havoc with agricultural finance in 1920 and 1921.

Sand Land Demonstrations

County Agents Gather at Demonstration Farms to Study the Hagerman Method of Making Sandy Soils Pay



IT was a warm day and an interested crowd assembled. The occasion brought forth a representation of sandy soil students from half the counties of the state. D. L. Hagerman was host, chairman and marshal of the day. He is the man behind the guns at the Howard City demonstration farm, owned and operated by the Grand Rapids & Indiana Railway, now a part of the Pennsylvania System.

This farm has been in operation for seven years and its object is to study and assist in the solution of the dairy problems of the farmers living in their territory. The man of average means is always kept in mind and visitors are welcome at all times.

There were but eighty acres in the original farm, and the soil is of a very sandy nature. Realizing that soil of this type may be quickly depleted by the ordinary farm practices and eventually thrown into the discard, these people are attempting to take the best teachings available and put them into regular practice upon this farm with the idea of developing a system of

permanent, profitable agriculture for these light lands.

The outcome has been, after long experimentation and study, the working out of a rotation of crops, which Mr. Hagerman has chosen to call the "Keystone Rotation," because the keystone is an emblem of safety and stability. Somewhat remarkable results have been achieved on this and adjoining farms which show the rotation to be well named.

A little booklet describing the practice in detail has been printed and may be secured by addressing the home offices in Grand Rapids. It is well worth the careful study of those whose fortunes place them on sand land farms.

The good work done by this organization has been well received and is being watched closely by many soil students. The occasion above mentioned will result in a better understanding of sandy soils and in spreading practical information regarding the management of them to many established sand land farmers throughout the state.

PUT UP FOR THE BUSY MAN.

It is reported that ten per cent of the Holstein cows making high averages in the United States are owned in Michigan.

Varieties of tomatoes are being tested by the Botanical Department of the Michigan Agricultural College to discover kinds which will be resistant to diseases under hot-house conditions.

The low prices which are now prevailing for broilers and other poultry is the sufficient reason for housewives and young folks in widely scattered sections of Michigan to engage in canning them for future consumption.

Federal entomologists report that the army worm is not likely to invade Michigan territory during this season. Michigan is also likely to escape serious inroads of the seventeen-year locust, the insect having passed to the south of this state.

Mrs. Brummer, of Holland, is finding new joy in farm life now that their splendid strain of Barred Rock fowls entered in the International Egg-laying Contest at M. A. C., has for several weeks been leading that breed in this big event.

MICHIGAN SECTION THE CAPPER FARM PRESS



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VOLUME CLXI

NUMBER TWO

DETROIT, JULY 14, 1923

CURRENT COMMENT

Sensible living makes a ready man.

Bad habits are not compatible with rendering the best service.

Most of us would be a bit happier and possibly more useful if we could sprout a few new ideas in our intellectual garden.

The real secret of keeping a healthy interest in this great business of living, is in constantly getting a mental grip on new aspects and relations of life.

Work
vs. Accomplishment

THERE is a lot of truth in the old adage, "All work and no play makes Jack a dull boy," but Jack is pretty apt to keep a reasonably good balance on this account. In fact, grown-up Jacks could often profitably take a lesson from even the hard-worked boy in this regard.

Farmers occupy a different position than do any other of the world's workers. This is particularly true of the American type of farmer who owns his own farm in the majority of cases and his own farm business in practically all cases. Of necessity, as a factor in the successful operation of the business, he has the working habit. Of necessity, too, he is in most cases obliged to work early and late during this strenuous summer season on account of shortage of help. Of necessity, too, his wife goes him one better in this regard, and easily puts in still longer and more strenuous days.

Too many of us who have the working habit well established, however, do not think clearly about work. We are apt to regard it as a great personal virtue, when as a matter of fact there is little virtue in work for work's sake. There is virtue in a task well accomplished. There is virtue in accomplishing it in an easy and quicker way than we have been accustomed to accomplish it. We are too apt to compliment ourselves, or, worse yet, indulge in self-pity, because we are busy rather than because of our actual accomplishment. As a matter of fact, we would do better to plan more carefully and efficiently to make our work count in visible results, and to consider well the saving in work which might be effected by the use of labor-saving devices on the farm and in the home.

There has been a great advancement along this line in the past gener-

ation. Farm work during the busy haying and harvesting season is nothing like the strenuous proposition it was a generation ago, yet there is a great opportunity for further improvement along the same line on the average farm, and still greater opportunity for similar improvement in the average farm home. Labor-saving equipment within reasonable limits is a profitable investment for the farmer who can keep it employed enough days in the year to make it profitable. It is a still better investment for the farm home where the number of hours in which the equipment can be utilized during the year is much greater than is the case with labor-saving farm equipment.

While labor-saving equipment requires an initial investment which may call for some sacrifice along other lines at the time it is purchased, if wisely chosen it is bound to be profitable through making the work on the farm and in the home more effective in results, thus leaving more time for better planning and needed recreation, which will keep the farmer and his family physically and mentally fit, and give them a more pleasurable and optimistic outlook on farm life.

Being Put
to the
Test

FOR a number of years past, the Danish cooperatives have been held up to us as models of mutual farmers' organizations. Certainly these institutions have wielded a wonderful influence in rehabilitating the agriculture of the little country of Denmark.

At the present time, however, these cooperatives are being put to a severe test. The big market which they have been years in developing has suddenly gone to other lands for supplies. In other words, England has turned to the southern hemisphere and made contracts with New Zealand for a large tonnage of butter. As a result, butter prices in western Europe have each week been going lower and lower until profits are no longer possible under the most efficient marketing plan.

We cite this merely to indicate that it is always a more or less hazardous thing to dispose of our products on a far away market. Usually the greater

the distance the greater are the chances for disturbing influences to interfere with communication between the producer and the consumer.

In other words, other things being equal, the home market is the best market. For this reason, we thoroughly believe that Michigan farmers will not go far wrong in deliberately going about to produce products which can be sold to the people living in the industrial centers of our state.

The
Keystone
Rotation

ON another page of this issue appears a brief account of the recent gathering of county agents and others interested in the management of sandy land at the demonstration farms of the Pennsylvania Railroad at Howard City.

On this farm a rotation has been adopted which seems to meet quite fully the needs of our lighter soils. Already, this rotation has been in use there for several seasons and the results show considerable improvement in the productive power of the land and at the same time there has been removed harvests which exceed those of sandy farms where ordinary cropping is practiced. The designation given this system of farming is the "Keystone Rotation."

The following is a brief statement of the crops used in the rotation:

First year—Peas and oats seeded to sweet clover.

Second year—Sweet clover seeded to rye and vetch.

Third year—Rye and vetch seeded to rye and vetch.

Fourth year—Cultivated crops seeded to rye and vetch or peas and oats with sweet clover, clover and alfalfa.

The advantages of the system are that a legume is growing on the land at least three of the four years; the ground is nearly always covered; the full growing season is utilized; the crops are adapted to sandy land; the labor requirement is reduced to a minimum, and the crops provide for the keeping of a reasonable quantity of live stock.

The usual precautions required on sandy land must, of course, be taken. Sour soils will give little response unless limed. A firm soil should be con-

stantly sought; hence, the cultipacker is an indispensable tool. The disc is also useful to the same end, and performs the further function of satisfactorily breaking up and covering plant growth.

The consistent use of barnyard manures, intelligently supplemented with additions of commercial fertilizers, is quite as essential here as with ordinary methods of farming.

We wish to commend the good work being done on this demonstration farm, and it is to be hoped that the lessons taught will receive the thoughtful consideration of every reader who may have land of this type to farm.

Keep
on
Going

IT is an unwritten law of the universe that the only way to keep up is to keep going. This law may be broadly applied. It is applicable to many things and to all people.

It is a long trail that has no turning. We have been following its rough and rugged course already far beyond where the turn should have been; still it is not in sight. Shall we give up and stop? When the bicycle stops it falls over.

There is but one safe thing for us to do, and it is the only way of keeping our place in the sun, and that is to keep on going.

Bumps

BUMPS are the things that make life interestin'. They's interestin' 'cause there ain't no anticipashun connected with them. And anticipashun is what takes lots of joy outta relizashun, 'cause relizashun ain't never what anticipashun wants it to be.

Now, bumps is lots of times one of the pleasures of life, 'cause they come when you don't expect them. And, what the perfessors call the unexpected, that's always interestin'.

For inst., Jim Hudson thinks he is some horse trader. Well, Jud Simpkins had a roan mare what was pleasant to look at. Jim trades his dabble gray for the roan, 'cause grays ain't in style no more. But when he gets the roan home, he finds that the looks of that horse was what you calls its chief assets. For inst., he found that its reverse gears wouldn't work at all, 'cause the horse wanted to see where it was goin'. And it heated up powerfully when you tried to put it into high.

Now that was a awful bump for Jim, but it come so what you call unexpected that Jim is goin' to have the pleasure of thinkin' about it all his life.

There's folks what sell courses for your memory, but they ain't got the right system. If you could get a bump in connecshun with each think you wanta remember, you would remember it. For inst., one day I was drivin' down town on a Saturday afternoon with Sophie, and there was a nice lookin' girl comin' along. Then I got a bump. The telephone post got in the way of my car and I had my reputashun as a driver bent a whole lot. Besides, it cost me \$23 to have the oughto fixed up. Now I ain't never goin' to forget that girl.

One of the best indicashuns of the value of bumps is that the man what makes the oughto what gives the most bumps for the money, sells the most of them.

Sophie just gave me a bump by tellin' me it's time to go to bed. I thought it was half-past seven, and she says it's as late as half-past eight.

HY SYCKLE.



Does a Tool House Pay?

Some Figures Which Should at Least Encourage the Most Efficient Use of Machinery Storage Room

THE farmers come in for more gratuitous advice and a due proportion of gratuitous criticism than any other class. It has become a custom, or fad, to advise or lambaste the farmers.

Favored above all other trades by the government in having advisers in all the counties, and experiment stations and experimenters frequently to instruct him in growing food products, the country weeklies also run several columns in their ready-prints, and even the city dailies are running a page weekly devoted to farming interests. With such a surplus of sage sapience sifted out for his instruction he ought to be sufficiently informed in ways and methods of running his business. And some of them are.

And one of the stock criticisms most frequently indulged in and often employed to account for his impoverished condition is his failure to keep his tools and implements under cover.

A certain banker who interested himself in matters pertaining to farming and spoke frequently in farmers' institutes took a virtuous delight in relating the number of farms he passed on a certain tour through the country where the tools were left out in the weather. No doubt if his attention had not been required in driving his car he might have discovered more of them. It is remarkable how tender and sensitive the conscience becomes when it comes to repenting of other people's sins, but it is noticeable that confession of such is not attended by that degree of humility that is supposed to accompany the acknowledgement of delinquencies of a more personal nature.

But when people take it upon themselves to indulge in wholesale criticism of people in other lines of enterprise it sometimes occurs that there is

further information due them. And it will perhaps appear so in this case.

What is the actual loss on the average farm occasioned by leaving tools unhooused? A teacher of mechanics in one of our large colleges said in the writer's hearing that the interest on the money required for a building to house the tools would amount to about as much as the depreciation of the tools when left out in the weather.

How much would tools go down when so exposed? On an average they would doubtless last ten years, so the loss could not be over ten per cent. But natural wear would amount to something. No ordinary farm implement could be expected to last more than fifty years if kept under cover constantly except when in actual use, so that at least two per cent must be allowed for natural wear, and not over eight per cent should be charged to loss from exposure.

What would be the cost of housing the tools on the ordinary farm? For it must be borne in mind that buildings are costly these days. I have made a list of the tools commonly found on the farm, with their prices as given in the catalog of a catalog house, and the estimated square feet of floor space they would occupy in a tool house.

	Price.	Floor Space.
Sulky plow	\$ 40.90	60
Walking plow	12.85	15
Sulky cultivator	29.75	60
Disc harrow	26.45	80
Spring-tooth harrow ..	10.75	30
Corn planter	47.50	60
Wagon	110.50	160
Manure spreader	107.00	160
Mower	63.80	60
Grain drill	78.75	96
Hay rake	36.45	80
Land roller	48.30	80

Total\$613.00 941

If eight per cent is allowed for depreciation then the annual loss on these implements would amount to \$49.04. A building providing room to cover them would have to be at least twenty by fifty feet on the ground, and ten feet high, and a wider building would be better. Such a structure requires approximately 4,000 feet of lumber besides shingles or roofing material for floor, and with labor at the present rates would cost \$500. Few farmers have that amount in ready cash to put into such a building, and to borrow it at the bank calls for seven per cent interest, or \$35 annually. Perhaps \$40 or \$50 might be saved by leaving one side open, but that would allow storms to blow in, and, moreover, the hazard from winds would be greatly increased, and the small saving would not be worth while. And this makes no provision for more tools that may be needed, such as a hay loader and tedder and perhaps a tractor with its accompanying tools. Nor is space allowed for a buggy or auto.

And besides the annual interest charge the fire hazard is much greater, both on building and tools, than would be the case with the tools scattered about under trees, and cost of insurance must be added. There must be something allowed, too for depreciation of building, probably estimated by insurance men at two per cent at least. Nor is such property concealed from the tax assessor. If we are to tabulate these expenses we shall find something like this.

Annual interest charge	\$35.00
Insurance	2.00
Depreciation, two per cent	10.00
Taxes, say .0275 on \$300 value	8.25

Total\$55.25

If we are not overestimating, then, in order to effect a saving of \$49 by

housing his tools, the farmer is insuring an expense annually of \$55. This does not appear like a large economy.

But this is not all of the story. The average farmer does not anticipate carrying his indebtedness and paying interest definitely, but expects to have to pay his debts within a limited time. And to raise \$500 within any reasonable time is going to call for some pinching, even if he might expect to get along without any loss of animals or sickness in the family, or buying some tool or implement. At best he starts in with the season with a gamble whether he will come out even at its end, and no possible insurance against loss. The treasurer of a prosperous township as there is in western Michigan told the writer a year ago that twenty-five per cent of the farmers had to borrow money to pay their taxes the previous winter. He is human, too, and when he goes to town with his family he likes to see them presentable, at least, and this calls for some expenditure for clothes. So that, even if there might be some saving in the long run by putting up a suitable tool house, he doesn't care to do the necessary pinching now.

The writer hereof has no desire to encourage improvidence on the part of farmers, and good buildings, with tools well housed, present an appearance of thrift that is attractive and commendable, but in view of this wholesale criticism to which farmers are subjected by those who haven't gone into this matter thoroughly, it may not be amiss to advise such that there is still some information due them.

NEWS BRIEFS.

Delegates are in special conference in Chicago considering plans for a federation of farmer and labor groups for political activity.

County Agent B. E. Shaefer, of Montcalm county, resigns to take up government work in Washington. No successor has been appointed.

Holstein breeders of West Michigan are planning on an annual picnic for August 7-10. The picnic may be supplemented with a short tour of Holstein herds in the vicinity of Grand Rapids.

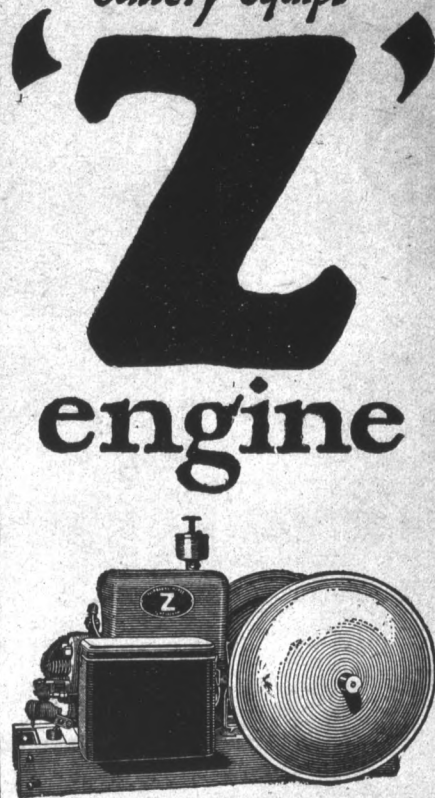
If normal weather continues, bumper crops of wild berries will be harvested in the northern counties. Huckleberries, red and black raspberries and blackberries are among the varieties which promise to give large crops.

The Traverse region will have a normal cherry crop this year. Growers are speculating as to what the price will be. Thus far, no offers have been received from either canners or outside buyers.

The state public utilities commission has granted an order giving the Manistee & Northeastern Railroad authority to take over the Leelanau Transit Company's equipment. This road is used principally for hauling fruit and tourists.

Experience with their common air-cooled storage plant has convinced Henry Craft & Son, prominent Kent county fruit growers, that it pays to store apples in seasons when bumper crops are grown. They figure, for instance, that during the past year the storage added thirty cents a bushel to the fruit which they stored.

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Hose Supporters, 25c; Corset
Sew-Ons, 25c; Hose Supporter
Harness, 50c.

Ask your dealer. If he can't supply you,
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"A Full Years Wear Guaranteed in Every Pair"

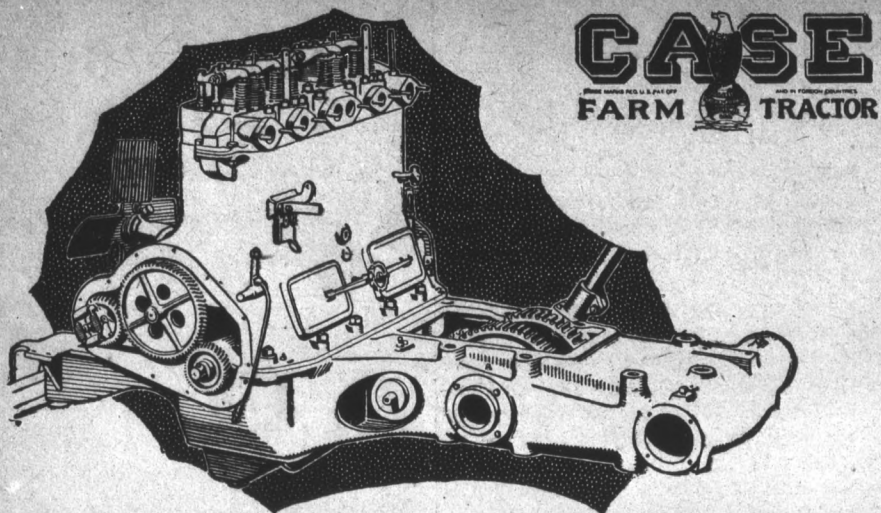
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A Measuring Device



IF you wish to know how many rods of fencing you will need for a field or if you wish to measure the area of a field, spend a little time first in making a measuring device. It is a handy thing to have around the place and will save lots of bother when rough measurements of distances or areas are desired.

The device in question is made like a big compass and it will lend itself most readily to subsequent calculations if the distance between the two points is exactly half a rod. With this instrument in hand, "walk" it along two sides of the field to be fenced, or around all four sides if the field is irregular in shape. Keep a straight course and count the half-rod "steps" on each side. In the case of rectangular fields multiply length by breadth and divide by 640, which will give the area in terms of acres.—O. Crooker.



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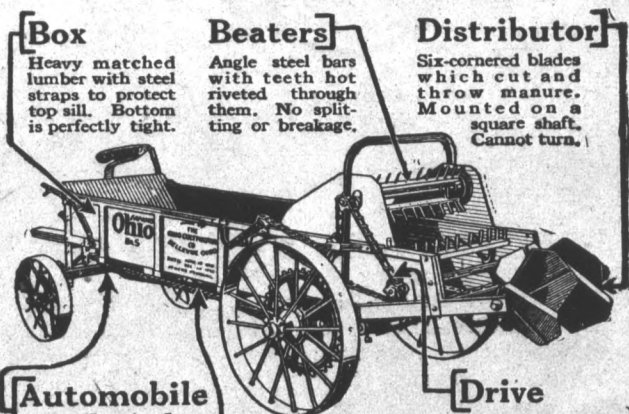
1. The center of gravity of the tractor is low, yet the machine has plenty of clearance. This is a big advantage in side hill work, reducing slippage and possibility of upsetting.
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A Fisherman's Luck

Our Weekly Sermon—By N. A. McCune

WHEN one pays a visit to the cathedral of Saint Peter's, in Rome, he is impressed and amazed. As one stands under the vast dome it seems almost like being out of doors, so great are the spaces. A guide will tell him that fifty thousand people have been in the building at one time. As he stands and watches the crowds passing through at almost any time of day, or when he climbs to the roof and looks over the city, he is more impressed with the magnificence of the brain that designed this structure. And finally, as he goes away, he remembers that it is all in honor of a fisherman, Simon Peter. It was part of the luck of this fisherman to be so remembered; in fact, to be honored by a branch of the Christian church as the greatest of men, and to be honored by all branches of the church as one of the Immortal Twelve.

Peter had only known that it was to be a servant, a girl, who was to scare him it would have been different. But he didn't. He was looking for a company of soldiers, and when they came he was going to fight. But when the Master told him to put up his sword, it seemed to take the life out of him. He had done his best. He wasn't looking for more trouble. But when it was all over and he heard the fateful crowing of the cock, "he went out and wept bitterly." It is in the unexpected times and places that men deny Christ. A smile, a joke, a sneer, a casual remark will do it.

But Simon Peter still had love for his Christ, and before many days he was to learn that his Christ still had love for him. Shortly after the crucifixion, it was rumored that there had been a resurrection. Very early Sunday morning, two women had been to

Probably Peter belonged to a family of some means. Apparently it was a property-owning family, and Peter was a respected merchant. He had quali-



to "catch men," which is more interesting than catching fish. There was a certain quick mental quality about this brawny son of the out-of-doors that appeals to us. He was the first to recognize the Meesiaship of Christ. The discovery was so important that his name was changed from henceforth, from Simon to Peter—that is, a Rock, a person of unusual qualities.

THE scenes at the last were typical of Peter's whole past. First he said he would die with his Master rather than deny him, and he actually started out to make his vow good, for he carried a sword, and used it on a high official. With one clip he cut off an ear, a pretty fair start for a man who is ready to spill blood. Then comes the unexpected grief. If Simon

But Simon Peter still had love for his Christ, and before many days he was to learn that his Christ still had love for him. Shortly after the crucifixion, it was rumored that there had been a resurrection. Very early Sunday morning, two women had been to the sepulchre and claimed that they had seen an angel, and that the tomb was empty. Peter said he would go and see if it were true—oh, if it only were true! He and his old fisherman friend, John, went together to the tomb, outside the city. But they could not wait to walk. They ran. Moreover, they ran fast. They ran a race, and John was there first. His quiet and reverent nature, however, would not permit him to enter the tomb, but he crouched and looked in. But when Peter comes up, panting with the run, he does not stop, but goes in. How important a figure Peter was afterward, we all know. He became a specialist, as an evangelist to the Gentiles. The sermon on the day of Pentecost showed the new Peter, clothed with the power of the newly found Holy Spirit.

VOLUMES have been written concerning this man. For instance, there is the story that never fails in interest concerning Peter and Mark. Mark's gospel was written by him or information which Peter supplied, and thus it might be called, the Gospel of Peter. The question as to whether Peter founded the church at Rome and was its first bishop will never be settled, probably. Perhaps it is true that he did. But he was a tremendous power in the early church, there can be no question on that point. He wrote two little books which found their way into the New Testament. The authenticity of the second has been questioned, but never the first. In it occur the well-known words, "For the time is come that judgment must begin at the house of God: and if it begin at us, what shall be the end of them that obey not the gospel of God? And if the righteous scarcely be saved, where shall the ungodly and the sinner appear?"

The story of this man is an encouragement to all followers of the Great King. If so useful a messenger could be made out of such unpromising material, is not almost anything possible in Christian work? The most careless, giggling, shallow minded girl may become the pride of the church and of the community. Moreover, it is well to be reminded that even temperament is not a final barrier. The rough places in Simon's temperament were smoothed out. The uncertain spots were strengthened. "Amid all Peter's stumbles and falls this always set him on his feet again—his enthusiastic love and adoration for his Master."

**SUNDAY SCHOOL LESSON FOR
JULY 15.**

SUBJECT:—Simon Peter. John 1:34 to 42; 14:28 to 31; 16:13 to 18, and 21 to 23; 17:1 to 13. Luke 5:1 to 10; 22:31 to 34, and 54 to 62. John 18:10,11; 20:1 to 10. Acts 2:1 to 5; 8:14 to 25; 9:32 to 12:19. Gal. 2:1 to 11.

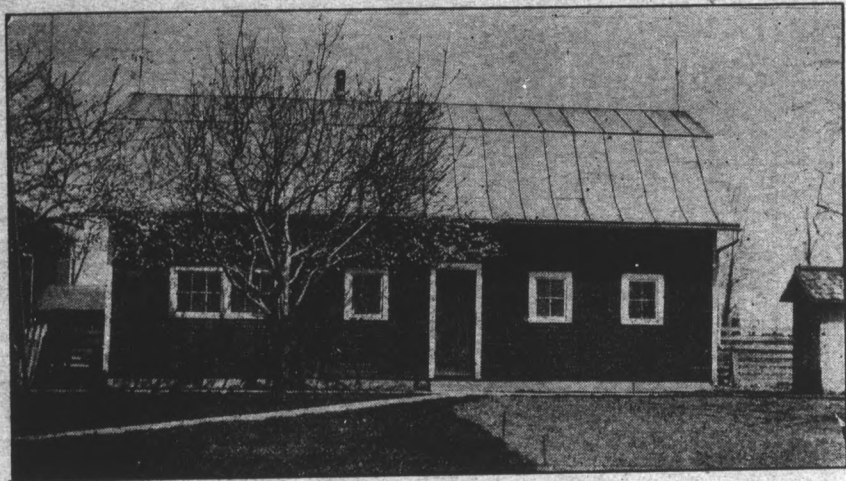
FARM SHOP GETS PRAISE.

HERE is the handy shop on the Cummings' Farm. It stands in a very convenient location between the house and barn, and is one of the most appreciated buildings on the farm.

Built approximately 16x32 feet, it contains a roomy work-shop with equipment for working with both wood and iron, bins for the storage of fuel or seed grains, and a second story,

ing from these self-made ditches in the side hills.

We have had our trouble along this line. Relief, however, has come to us through the use of retarding dams. These may be built by placing posts in a line across the gulley and stretching some fencing on these posts so that refuse will collect behind the wire and hold back the rushing water following a stream. Or, brush may be thrown into the gulley to do the



The Equipment in this Shop Enables the Owners to Make Good Use of Rainy Weather and Winter Months.

nice enough to live in, which furnishes ideal storage for seed corn and numerous articles not wanted in house or barn.

Mr. Cummings believes in having a place for everything and everything in its place. This house is a very great help. It is to the farm what the desk and filing case are to the office.

FERTILIZER SAVES BEETS.

A NUMBER of beet fields in this locality have suffered severely this year from attacks of little bugs. The insects seem to put in their appearance all at once, and almost before one knows it the beets are gone. The most damage, thus far, has been done before the beets were thinned, after that the beets appear to be able to take care of themselves.

We have also observed this, that the insects do not work so freely on fields which have been well fertilized. We do not know whether it is the fertilizer that acts as a repellent, or whether the increased growth enables the plant to better take care of itself. We would be pleased to learn whether other farmers growing beets have made observation along this line. If through additional fertilization we can ward off the damage done by this pest we shall be most happy.—H. Wasson, Gratiot County.

BEAN CULTIVATOR IN THE BEET FIELD.

THE cultivator which handles three rows of beans at a time is doing the same thing in the beet field. Scarcely no readjustments are required, since we drilled the beets in rows twenty-eight inches apart, the same as we did the beans.

Every farmer knows that it is some chore during the very busy season to change an implement set for working under one condition, so that it works well under other conditions. To save these minutes and hours was the big reason for putting in the beets as we did. Now that the pressing work is on we feel thankful that our head was on the job when the beets were going into the ground.—P. Isabella County.

SOIL EROSION WORKS HAVOC.

I OBSERVE that in some sections of the state soil erosion does a great deal of damage to farms. In some instances fields are pretty much ruined by the gullies and the deposits result-

ing from these self-made ditches in the side hills. This breaks up the plant roots in the soil and destroys the binding influence which they exert.—S. C. Isham.

MORE INTERESTED IN BUSINESS METHODS.

THERE was greater interest among farmers in keeping records of their business operations last year than any preceding period, according to the farm management records of the bureau of agricultural economics. More than 62,000 farm account books were ordered by farmers from state extension forces. In addition 11,000 books in which records of individual crops were kept were distributed.

This work has been in progress for ten years, having been begun in Massachusetts, New York and Ohio in 1913. During this time more than 50,000 farm accounts have been analyzed by farm management experts connected with the department of agriculture. It has proved a definite aid in formulating farm management programs for entire communities. As a result of this increased interest in farm accounting last year, nearly 3,000 farm businesses were reorganized. More than 12,000 farmers made important changes in their business.

Study and master the mechanism of your farm machinery. Instruct those who handle it to operate it correctly, and without strain upon brakes, gears, or any part where friction may occur.

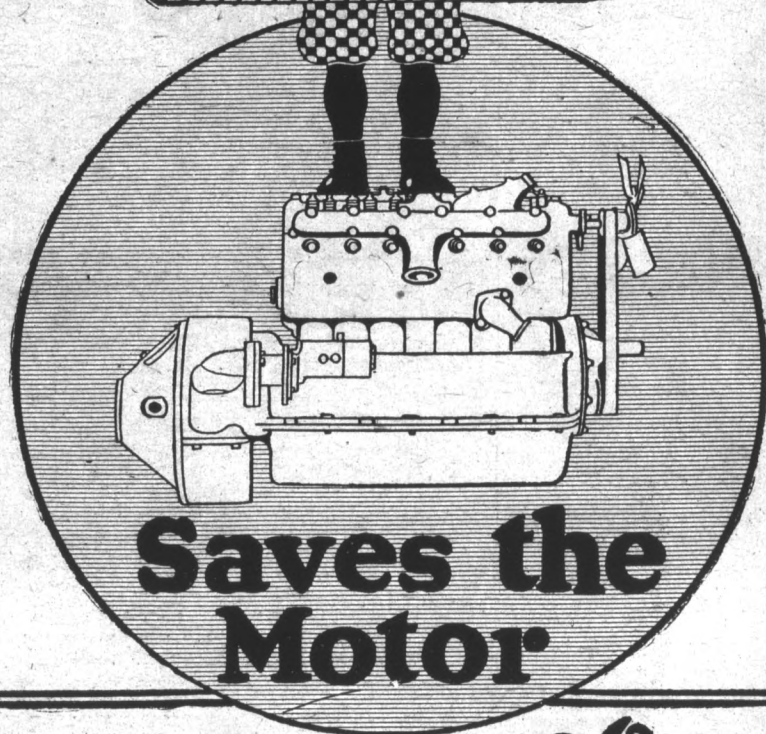
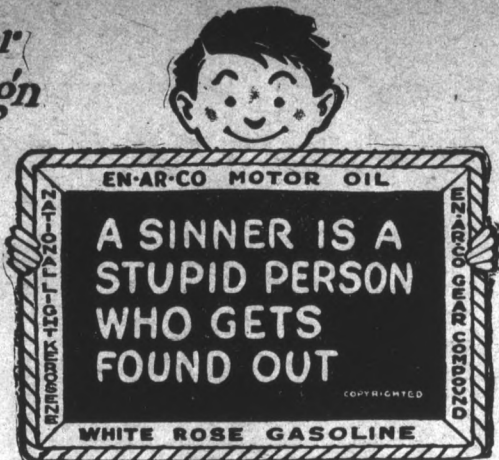
Take time to figure out exactly how much you have saved on the average job by having power machinery, and this will be a distinct encouragement to use the best methods in the doing of all jobs.

Learn the amount of lubrication needed. Too little means friction and worn parts. Too much means a gumming and a clogging of parts, and the fouling of spark plugs. Enough is enough. Know how much that is.

Take out insurance coverage as a matter of business policy. The wise man does not run any risks from which he can protect himself. A talk with a reliable insurance agent will prove illuminating, and the relatively small amount spent for insurance protection, is worth-while in satisfaction, peace of mind, and possibly in the settlement of some unexpected claim.

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Give your motor a real chance by using a real oil. Order En-ar-co today—order it in quantity. This means a big saving in money and the assurance of having a supply on hand when you need it. Ask your dealer. If he cannot supply you, send your order to us. Use the coupon below and get

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Mule-Hide Slate-Kote Roofing is made in two weights, 90 lbs. per roll of 108 square feet and 105 lbs. per roll of 108 square feet. Furnished in unfading red and green colorings. Nails, cement and directions for applying packed with each roll.

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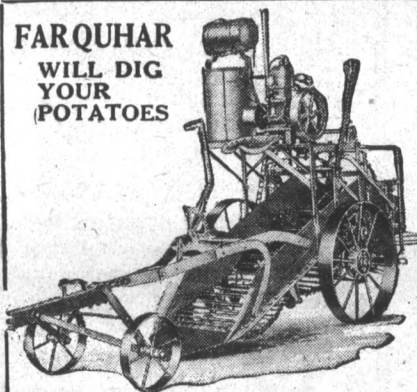
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TRESPASS ON SHORE.

I own a farm which has Lake Michigan for its west boundary. I would like to know if I have the right to stop people from hauling gravel off my beach, and if a notice on the beach is sufficient warning to trespassers?—E. L.

Trespassers are liable for taking gravel. Notice is necessary.—Rood.

NOT REQUIRED TO PROVIDE DRIVEWAYS.

Road contractors have cut a ditch three feet deep in front of our house. Do they not have to bridge this so I can get in and out?—H. F.

Concerning the right of township officials to construct a road gutter in front of a driveway without replacing the same, you are advised that there is nothing in the statute that requires a municipality building a highway to provide driveways for abutting property owners.—H. N. Partlow.

PARTNERSHIP.

In a partnership, if one partner keeps the books, has the other partner a right to look the books over? What is the penalty if one partner takes out money and does not make a record of it? Would there have to be more proof than that they admit taking the money and refuse to tell how much? How large an amount would be necessary to make it a crime?—Subscriber.

Each partner is entitled to access to the books at all times. Appropriation of partnership funds to either partner is embezzlement and a criminal offense regardless of amount.—Rood.

COW LEAKS MILK.

I have a four-year-old Holstein cow which leaks her milk badly. Could you advise any remedy for this?—R. A. M.

I think the most satisfactory remedy for your cow would be to milk her three times a day. Your veterinarian might scarify the opening in the teat and cause it to grow smaller but it is rather a delicate operation and I should hesitate to try it on a cow that was very valuable for fear of making matters worse.—Pope.

DOES VACCINATION HURT MEAT?

Are hogs that were vaccinated for hog cholera perfectly good to eat?—Mrs. C. B.

There is nothing about vaccination to injure your meat in any way. Of course, for a few days after the operation while the vaccine is working, it would not be policy to butcher the hog. Occasionally, also, an abscess will form at the point of injection and might cause the wasting of a pound or so of the meat.—Pope.

NEGLIGENT INJURY.

My neighbor scattered grasshopper poison along his road fence, well away from his own buildings, but toward mine. The grasshoppers ate the poison, but as it does not immediately kill them, some fly into my place and are eaten by my chickens and turkeys, which results in their death. My poultry are fenced in so do not go on the road, and are, therefore, being poisoned on my own place. Have I any redress?—E. M.

Every person is liable to anyone injured through the natural consequences of his own acts to the extent that a reasonable person could in advance anticipate such consequence. And the probability of poisoned grasshoppers straying away into the adjoining enclosure and poisoning poultry, that being such as a reasonable per-

son would anticipate, he is liable to the owner of the poultry for the damage thereby sustained.—Rood.

WANTS TO LET MARE ON SHARES.

What share ought a good breed mare to draw that is let out to raise colts on shares, with the understanding that the mare is to work and pay for keep, excepting the first eight or ten weeks after the colt is born, when the mare is to run out in pasture in order to give the colt a start? The balance of the year the mare will do farm work to pay for her keep. Now, what share ought the man that owns the mare get in the colts?—Reader.

There are different ways of figuring a fair return for the horse keep but no doubt as fair a way as any is to allow the owner a fair income for his investment and risk.

The following example will give a basis for figuring out what the owner should receive for his investment and risk, assuming the horse is worth \$100. Interest at six per cent.....\$ 6.00 Depreciation at seven per cent... 7.00 Taxes, insurance, two per cent 2.00 Service fees (estimated) 25.00

Total\$40.00

If the colt is worth \$50 the owner of the horse should have eighty per cent of its value in order to make six per cent interest on his investment.—F. T. Riddell.

CHEMICAL CLOSETS AND CLOGGED PIPES.

Please tell me if the contents of a chemical toilet will freeze. In all the advertisements I ever saw, no mention was made of this fact. I wish to install one in a fuel room entirely separate from the house, if practical. Also in regard to a kitchen sink, the waste pipe is entirely filled up. It has no bend or trap, I have put in four cans of condensed lye, but it seems to have no effect, except to heat the pipe clear to the floor. The pipe runs under the floor and it would be a very difficult job to take it up. The pipe discharges into a so-called cess pool, simply a barrel sunk in the ground.—M. F. C.

The contents of a chemical closet will freeze. The temperature at which it will freeze depends upon the strength of the liquid originally put into the tank and upon the dilution of the chemical with which the tank was charged. The contents would probably not freeze sufficient to burst the tank and the contents would not be offensive or harmful when frozen.

In regard to the stoppage in the waste pipe. I will say that concentrated lye would have little effect if it could not get an opening to get through as it would only work a little below the surface of the stoppage in the pipe. If it would be possible to run a wire through the pipe so that the lye could follow it, it might work its way through, although I would not expect it. The stoppage in the pipe is, no doubt, from fats, when fat and lye is brought together soap is formed and, unless you could get plenty of water through the pipe to dissolve the soap and carry it out, you would be no better in the second case than in the first. You probably will have to take the pipe apart sufficiently to get a wire or rod through it for the purpose of cleaning.—F. E. Fogle.

TAXATION EXEMPTION.

Is a Spanish war veteran (receiving a pension) exempt from taxation the same as a G. A. R. soldier? If so, how much and where can it be found in the law book?—A. C. S.

Homestead of Spanish-American war veteran is exempt to the extent of \$1,000 by Stat. No. 331, Sec. 7, Sub. 11, of Public Acts of 1919.—Rood.

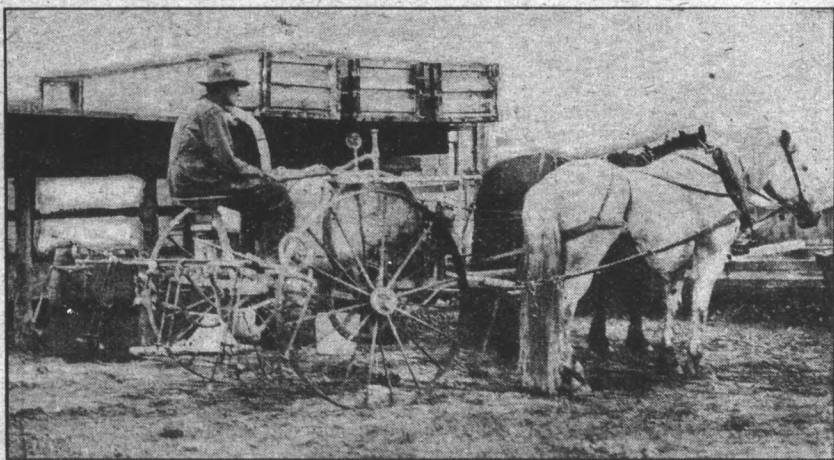
ORCHARD AND GARDEN

APPLE SURVEY REVEALS INTERESTING FACTS.

IN a report just issued, the Pennsylvania State College and the State Department of Agriculture publish the results of their joint survey of the state's apple industry. Perhaps the most significant fact brought out by the report is that only those who are qualified to grow apples on a strictly business-like basis can hope to succeed.

In view of the rather conflicting testimony regarding orchard fertilization, the practice of the Pennsylvania orchardists may be enlightening.

Two-thirds of the sod orchards and most of the cultivated orchards were fertilized. Most of the orchards were manured, the average being from five to ten tons per acre, every three years.



Potato Growers Have Become Convinced that Bordeaux Applied with a High Pressure Sprayer Keeps Down Pests and Builds up Yields.

Most growers using commercial fertilizers, applied them every year, the usual mixture being acid phosphate and nitrate of soda, spread at the rate of ten to fifteen pounds per tree, usually prior to May. The effect of fertilizer treatment, on all the trees surveyed, was as follows:

In the orchards which were fertilized the percentage of good trees found was sixty-two; of medium trees, thirty-three per cent, and of poor trees, five per cent. In the orchards unfertilized the percentage of good trees fell to twenty, trees in medium condition dropped but little to thirty-one per cent, while those in poor condition run up to forty-nine per cent.

While other factors may have played a part in bringing about these conditions, it is reasonably certain that the additional plant food supplied by fertilization was largely responsible in keeping the trees in good condition.

VINE CROPS ARE SUFFERING.

What causes my muskmelons, watermelons and cucumbers to be eaten or chewed up, and yellow spots to develop upon them? For the spots I have sprayed with Bordeaux with but little apparent good. I also dusted with slaked lime, but to me it seems to have burned the plants and stopped them from growing. Would ammonium sulphate help the growth? Poisoned bait did not seem to help destroy cutworms. Also advise best spray for small tomato plants.—H. L.

Cucumbers and muskmelons are commonly troubled with the striped cucumber beetles. This insect may be controlled by dusting with hydrated lime to which a small amount of Paris green or arsenate of lead has been added. Sometimes a little turpentine mixed with the lime will act as a repellent and keep the insects away from the plants. One of the best materials which has come into recent use is known as Nicodust. This is a dusting

powder containing three to five per cent of nicotine and is very efficient in controlling the cucumber beetles.

Diseases of the cucumber and melons may be controlled by spraying with Bordeaux mixture, using the 4-4-50 formula—that is, four pounds of copper sulphate, four pounds of stone lime or six pounds of hydrated lime, to fifty gallons of water. Very heavy applications of slaked lime very often check the growth of the plants and may cause some burning as you have already found from the use of this material.

Ammonium sulphate is a very efficient material for fertilizing all of the vegetable crops. A small amount applied to the soil around the plants will stimulate a more vigorous growth and help to overcome the troubles affecting them. I do not know of any bet-

ter remedy for the cutworms than the use of poisoned bait.

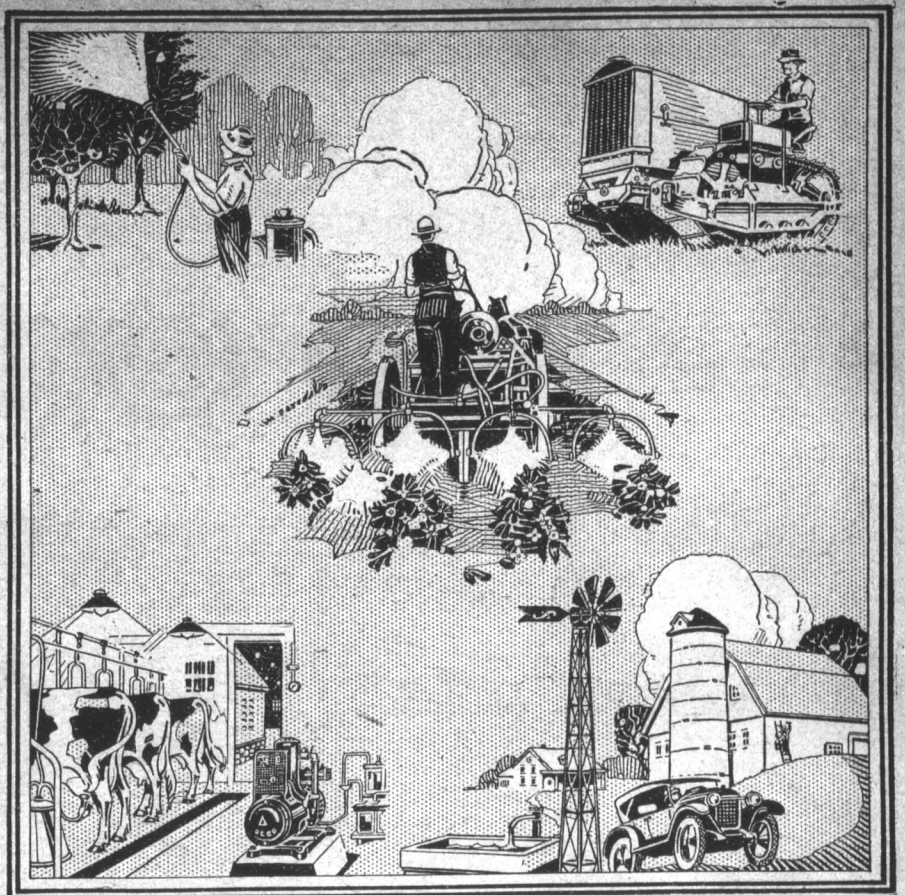
Muskmelon aphids or lice are usually found on the under sides of the leaves. These are usually green in color. Some of the winged generation may look like a small beetle or fly. These aphids may be controlled by the use of the nicotine dust which I have mentioned, or by thorough spraying with a tobacco extract. In spraying for this insect it is important that the spray be directed so that it will strike the body of the insect. This means, of course, that the spray material must be applied mostly to the under side of the leaves. It is possible that the small insects which you mention are the flea beetle. This is very common early in the season and is found on many plants. This insect may be controlled by thorough spraying with arsenate of lead.

The best material for spraying tomato plants is freshly prepared Bordeaux mixture to which some arsenate of lead has been added.—R. E. Loree.

A small, hard stream of water upsets the domestic affairs of the mealybug which so often damages the house-plants. Or the plants may be washed with soap-suds.

If the cabbage plants are not heading, the cabbage-worm may be controlled by spraying the plants with kerosene emulsion, or with Paris green to which a sticker has been added. After heading has started then hellebore should be used instead of the poison.

The little fruit worm which feeds on gooseberries may be kept in-check by turning a liberal number of hens in the gooseberry patch. Clean cultivation also aids in keeping down the pest.



How lead keeps the wolf from your door

LEAD helps to protect you from famine. Each year your daily food supply grows more dependent upon the proper use of the fertilizers lead helps to make.

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Phosphates are the basis of nearly all artificial fertilizers. The phosphates mixed with sulphuric acid give one of the elements plant life needs. Because lead successfully resists the action of sulphuric acid it is used for lining the rooms and tanks in which the fertilizer-manufacturing processes are carried on, for making the pipes which convey the corrosive liquids, and for the pails and other containers used about the factory.

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In the modern farmer's tractors, trucks, and automobiles a storage battery, mostly lead, provides electric current for starting, lighting, and ignition. Lead-tin solder seals gasoline tank and radiator. Litharge, a lead oxide, is used in refining the gasoline that makes the tractor, truck, and automobile go.

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Painting with lead

As paint, lead helps to protect the farmer's house, farm buildings, and equipment.

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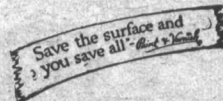
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Modern Poultry Breeder
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All for \$1.60

MICHIGAN FARMER,
Detroit, Michigan:

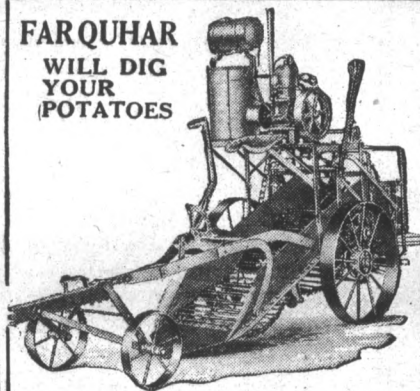
Enclosed find \$..... for
which send me the papers named
in Club No.
Name
Postoffice
StateR. F. D....

PATENTS

Write today for free instruction book and "Record of Invention" blank. Send sketch or model for personal opinion.

CLARENCE O'BRIEN, REGISTERED PATENT
LAWYER, 952 Southern Bldg., Washington, D. C.

FARQUHAR WILL DIG YOUR POTATOES



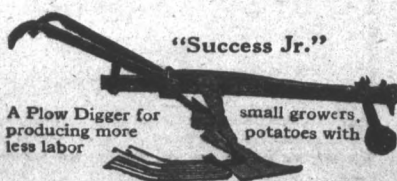
We have long studied the economical harvesting of potatoes, and now offer a Farquhar Digger suitable for every condition of soil.

The No. 1 Elevator Digger shown above is a general favorite built to stand the strain of hard continuous usage. Rigid tongue construction, and the choice of Cross Bottom or Riddle Bottom type of Elevator. It digs clean, and leaves the potatoes convenient for picking. Large No. 2 Elevator Digger for deep digging and bad conditions. Engine drive if desired.

Our "Success Jr." Plow Digger gets more potatoes in one trip over the row than a turn plow in three. Price so low it is within reach of the half acre grower.

If you grow potatoes you can't afford to be without a Digger. Illustrated Catalogue explaining why that Digger should be a Farquhar mailed free on request. Write for copy today.

A. B. FARQUHAR CO., Limited
Box 212 York, Pa.



A Plow Digger for
producing more
less labor

small growers,
potatoes with

OUR SERVICE DEPARTMENT

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

TRESPASS ON SHORE.

I own a farm which has Lake Michigan for its west boundary. I would like to know if I have the right to stop people from hauling gravel off my beach, and if a notice on the beach is sufficient warning to trespassers?—E. L.

Trespassers are liable for taking gravel. Notice is necessary.—Rood.

NOT REQUIRED TO PROVIDE DRIVEWAYS.

Road contractors have cut a ditch three feet deep in front of our house. Do they not have to bridge this so I can get in and out?—H. F.

Concerning the right of township officials to construct a road gutter in front of a driveway without replacing the same, you are advised that there is nothing in the statute that requires a municipality building a highway to provide driveways for abutting property owners.—H. N. Partlow.

PARTNERSHIP.

In a partnership, if one partner keeps the books, has the other partner a right to look the books over? What is the penalty if one partner takes out money and does not make a record of it? Would there have to be more proof than that they admit taking the money and refuse to tell how much? How large an amount would be necessary to make it a crime?—Subscriber.

Each partner is entitled to access to the books at all times. Appropriation of partnership funds to either partner is embezzlement and a criminal offense regardless of amount.—Rood.

COW LEAKS MILK.

I have a four-year-old Holstein cow which leaks her milk badly. Could you advise any remedy for this?—R. A. M.

I think the most satisfactory remedy for your cow would be to milk her three times a day. Your veterinarian might scarify the opening in the teat and cause it to grow smaller but it is rather a delicate operation and I should hesitate to try it on a cow that was very valuable for fear of making matters worse.—Pope.

DOES VACCINATION HURT MEAT?

Are hogs that were vaccinated for hog cholera perfectly good to eat?—Mrs. C. B.

There is nothing about vaccination to injure your meat in any way. Of course, for a few days after the operation while the vaccine is working, it would not be policy to butcher the hog. Occasionally, also, an abscess will form at the point of injection and might cause the wasting of a pound or so of the meat.—Pope.

NEGLIGENT INJURY.

My neighbor scattered grasshopper poison along his road fence, well away from his own buildings, but toward mine. The grasshoppers ate the poison, but as it does not immediately kill them, some fly into my place and are eaten by my chickens and turkeys, which results in their death. My poultry are fenced in so do not go on the road, and are, therefore, being poisoned on my own place. Have I any redress?—E. M.

Every person is liable to anyone injured through the natural consequences of his own acts to the extent that a reasonable person could in advance anticipate such consequence. And the probability of poisoned grasshoppers straying away into the adjoining enclosure and poisoning poultry, that being such as a reasonable per-

son would anticipate, he is liable to the owner of the poultry for the damage thereby sustained.—Rood.

WANTS TO LET MARE ON SHARES.

What share ought a good breed mare to draw that is let out to raise colts on shares, with the understanding that the mare is to work and pay for keep, excepting the first eight or ten weeks after the colt is born, when the mare is to run out in pasture in order to give the colt a start? The balance of the year the mare will do farm work to pay for her keep. Now, what share ought the man that owns the mare get in the colts?—Reader.

There are different ways of figuring a fair return for the horse keep but no doubt as fair a way as any is to allow the owner a fair income for his investment and risk.

The following example will give a basis for figuring out what the owner should receive for his investment and risk, assuming the horse is worth \$100.
Interest at six per cent. \$ 6.00
Depreciation at seven per cent. . 7.00
Taxes, insurance, two per cent 2.00
Service fees (estimated) 25.00

Total\$40.00

If the colt is worth \$50 the owner of the horse should have eighty per cent of its value in order to make six per cent interest on his investment.—F. T. Riddell.

CHEMICAL CLOSETS AND CLOGGED PIPES.

Please tell me if the contents of a chemical toilet will freeze. In all the advertisements I ever saw, no mention was made of this fact. I wish to install one in a fuel room entirely separate from the house, if practical. Also in regard to a kitchen sink, the waste pipe is entirely filled up. It has no bend or trap, I have put in four cans of condensed lye, but it seems to have no effect, except to heat the pipe clear to the floor. The pipe runs under the floor and it would be a very difficult job to take it up. The pipe discharges into a so-called cess pool, simply a barrel sunk in the ground.—M. F. C.

The contents of a chemical closet will freeze. The temperature at which it will freeze depends upon the strength of the liquid originally put into the tank and upon the dilution of the chemical with which the tank was charged. The contents would probably not freeze sufficient to burst the tank and the contents would not be offensive or harmful when frozen.

In regard to the stoppage in the waste pipe. I will say that concentrated lye would have little effect if it could not get an opening to get through as it would only work a little below the surface of the stoppage in the pipe. If it would be possible to run a wire through the pipe so that the lye could follow it, it might work its way through, although I would not expect it. The stoppage in the pipe is, no doubt, from fats, when fat and lye is brought together soap is formed and, unless you could get plenty of water through the pipe to dissolve the soap and carry it out, you would be no better in the second case than in the first. You probably will have to take the pipe apart sufficiently to get a wire or rod through it for the purpose of cleaning.—F. E. Fogle.

TAXATION EXEMPTION.

Is a Spanish war veteran (receiving a pension) exempt from taxation the same as a G. A. R. soldier? If so, how much and where can it be found in the law book?—A. C. S.

Homestead of Spanish-American war veteran is exempt to the extent of \$1,000 by Stat. No. 331, Sec. 7, Sub. 11, of Public Acts of 1919.—Rood.

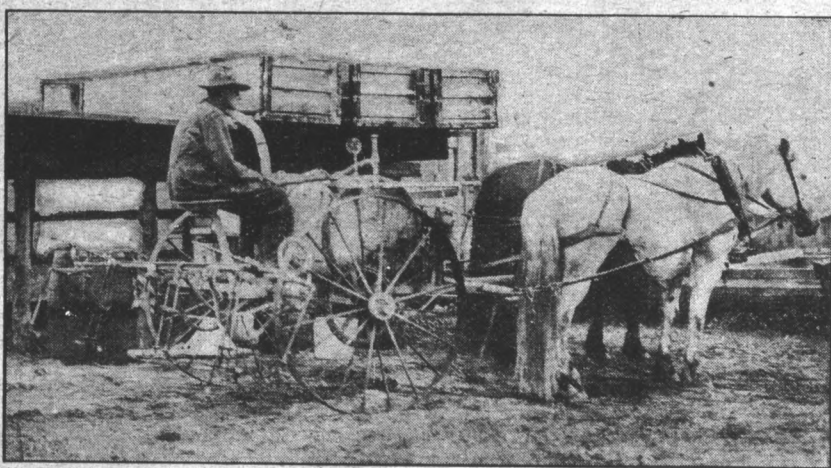
ORCHARD AND GARDEN

APPLE SURVEY REVEALS INTERESTING FACTS.

IN a report just issued, the Pennsylvania State College and the State Department of Agriculture publish the results of their joint survey of the state's apple industry. Perhaps the most significant fact brought out by the report is that only those who are qualified to grow apples on a strictly business-like basis can hope to succeed.

In view of the rather conflicting testimony regarding orchard fertilization, the practice of the Pennsylvania orchardists may be enlightening.

Two-thirds of the sod orchards and most of the cultivated orchards were fertilized. Most of the orchards were manured, the average being from five to ten tons per acre, every three years.



Potato Growers Have Become Convinced that Bordeaux Applied with a High Pressure Sprayer Keeps Down Pests and Builds up Yields.

Most growers using commercial fertilizers, applied them every year, the usual mixture being acid phosphate and nitrate of soda, spread at the rate of ten to fifteen pounds per tree, usually prior to May. The effect of fertilizer treatment, on all the trees surveyed, was as follows:

In the orchards which were fertilized the percentage of good trees found was sixty-two; of medium trees, thirty-three per cent, and of poor trees, five per cent. In the orchards unfertilized the percentage of good trees fell to twenty, trees in medium condition dropped but little to thirty-one per cent, while those in poor condition run up to forty-nine per cent.

While other factors may have played a part in bringing about these conditions, it is reasonably certain that the additional plant food supplied by fertilization was largely responsible in keeping the trees in good condition.

VINE CROPS ARE SUFFERING.

What causes my muskmelons, watermelons and cucumbers to be eaten or chewed up, and yellow spots to develop upon them? For the spots I have sprayed with Bordeaux with but little apparent good. I also dusted with slaked lime, but to me it seems to have burned the plants and stopped them from growing. Would ammonium sulphate help the growth? Poisoned bait did not seem to help destroy cutworms. Also advise best spray for small tomato plants.—H. L.

Cucumbers and muskmelons are commonly troubled with the striped cucumber beetles. This insect may be controlled by dusting with hydrated lime to which a small amount of Paris green or arsenate of lead has been added. Sometimes a little turpentine mixed with the lime will act as a repellent and keep the insects away from the plants. One of the best materials which has come into recent use is known as Nicodust. This is a dusting

powder containing three to five per cent of nicotine and is very efficient in controlling the cucumber beetles.

Diseases of the cucumber and melons may be controlled by spraying with Bordeaux mixture, using the 4-4-50 formula—that is, four pounds of copper sulphate, four pounds of stone lime or six pounds of hydrated lime, to fifty gallons of water. Very heavy applications of slaked lime very often check the growth of the plants and may cause some burning as you have already found from the use of this material.

Ammonium sulphate is a very efficient material for fertilizing all of the vegetable crops. A small amount applied to the soil around the plants will stimulate a more vigorous growth and help to overcome the troubles affecting them. I do not know of any bet-

ter remedy for the cutworms than the use of poisoned bait.

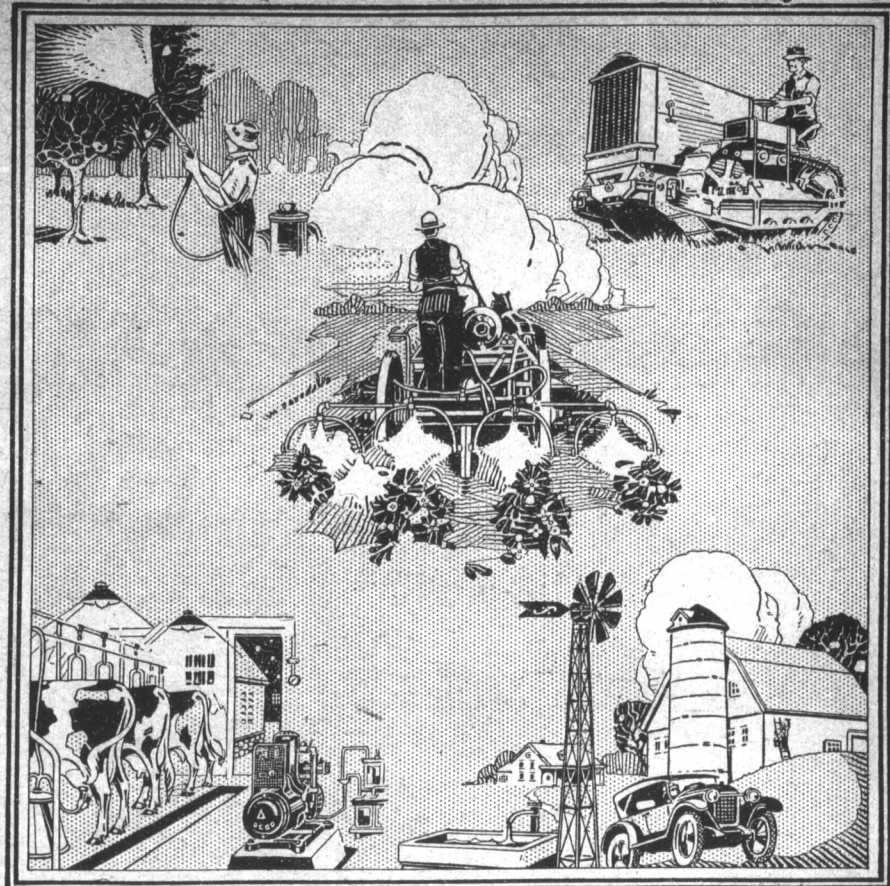
Muskmelon aphids or lice are usually found on the under sides of the leaves. These are usually green in color. Some of the winged generation may look like a small beetle or fly. These aphids may be controlled by the use of the nicotine dust which I have mentioned, or by thorough spraying with a tobacco extract. In spraying for this insect it is important that the spray be directed so that it will strike the body of the insect. This means, of course, that the spray material must be applied mostly to the under side of the leaves. It is possible that the small insects which you mention are the flea beetle. This is very common early in the season and is found on many plants. This insect may be controlled by thorough spraying with arsenate of lead.

The best material for spraying tomato plants is freshly prepared Bordeaux mixture to which some arsenate of lead has been added.—R. E. Loree.

A small, hard stream of water upsets the domestic affairs of the mealybug which so often damages the house-plants. Or the plants may be washed with soap-suds.

If the cabbage plants are not heading, the cabbage-worm may be controlled by spraying the plants with kerosene emulsion, or with Paris green to which a sticker has been added. After heading has started then hellebore should be used instead of the poison.

The little fruit worm which feeds on gooseberries may be kept in check by turning a liberal number of hens in the gooseberry patch. Clean cultivation also aids in keeping down the pest.



How lead keeps the wolf from your door

LEAD helps to protect you from famine. Each year your daily food supply grows more dependent upon the proper use of the fertilizers lead helps to make.

Enriching the soil

Phosphates are the basis of nearly all artificial fertilizers. The phosphates mixed with sulphuric acid give one of the elements plant life needs. Because lead successfully resists the action of sulphuric acid it is used for lining the rooms and tanks in which the fertilizer-manufacturing processes are carried on, for making the pipes which convey the corrosive liquids, and for the pails and other containers used about the factory.

Lead aids the farmer in protecting his fruit trees, vines, and truck crops. He sprays them with arsenate of lead to poison insects that would otherwise destroy them.

Lead in batteries

In the modern farmer's tractors, trucks, and automobiles a storage battery, mostly lead, provides electric current for starting, lighting, and ignition. Lead-tin solder seals gasoline tank and radiator. Litharge, a lead oxide, is used in refining the gasoline that makes the tractor, truck, and automobile go.

Electric light bulbs and lamp chimneys throughout house and farm buildings are made of a superior lead glass.

Painting with lead

As paint, lead helps to protect the farmer's house, farm buildings, and equipment.

Red-lead, an oxide of lead, makes a paint that guards the metal of his

windmill and machinery against the attacks of rust and thus prolongs their usefulness indefinitely.

White-lead is the paint usually used for wood and other non-metallic surfaces on farms and throughout the world. Practically everywhere one goes—on sea or land—he can see or touch white-lead paint.

More property owners than ever before are learning the value of the phrase, "Save the surface and you save all." And they are saving the surface with white-lead, or at least with paint containing a high percentage of white-lead.

Look for the Dutch Boy

National Lead Company makes white-lead of the highest quality and sells it, mixed with pure linseed oil, under the name and trademark of Dutch Boy White-Lead. The figure of the Dutch Boy is reproduced on every keg of white-lead and is a guarantee of exceptional purity.

Dutch Boy products also include red-lead, linseed oil, flatting oil, babbitt metals, and solder.

Among other products manufactured by National Lead Company are bar lead, litharge, glassmakers' red-lead, lead pipe, battery red-lead, orange mineral, and die castings.

More about lead

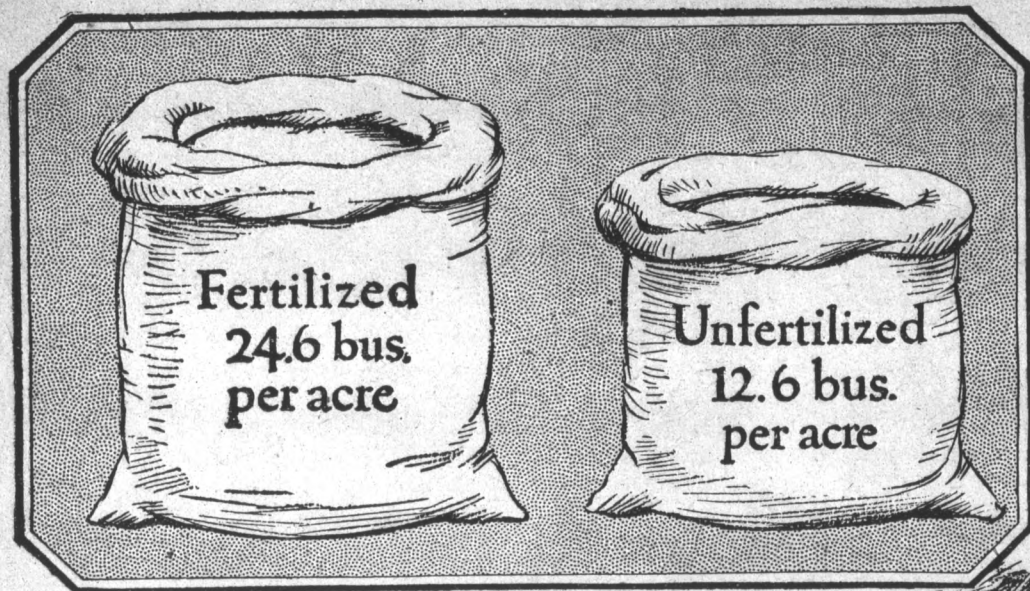
If you use lead, or think you might use it in any form, write to us for specific information.



Save the surface and you save all.

NATIONAL LEAD COMPANY

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



Wheat yields nearly doubled

EXPERIMENTS over a long period of years by the Experiment Stations of six of the leading winter wheat states show the following average acre yields of wheat:

With fertilizers 24.6 bushels
Without fertilizers . . . 12.6 bushels
Increase 12 bushels

Swift's Red Steer Fertilizers pay big profits—in increased yields of better quality grain, in a better catch and better yield of clover and hay following the wheat crop.

To escape the Hessian fly, your Experiment Stations advise you to plant your wheat late. To minimize the loss from winter freezing and killing, a good fall growth is necessary.

Swift's Red Steer Fertilizers for wheat provide the available plant food to produce the strong root system and heavy top growth necessary for the wheat crop to go through the winter.

Buy the right fertilizers for wheat

For over 50 years, Swift & Company has maintained a reputation for making each Swift product the best of its kind. This reputation stands back of every bag of Swift's Red Steer Fertilizers.

Swift's Red Steer Fertilizers for wheat are made from the highest grade and most productive sources of plant food, properly processed and combined to make the farmer the biggest yields, the best quality crops and the most net profit.

Protect your investment in land, preparation of soil, seed and seeding, by using Swift's Red Steer Fertilizers—fertilizers that you know are made right.

Learn what service means

Swift's Red Steer Fertilizers may be obtained from the A.S.A. (Authorized Swift Agent) in your town.

The A.S.A. is not content simply to sell fertilizers. He is pledged to co-operate with the farmer, the county agent and the State Agricultural College in the promotion of better farming methods.

Particularly is he pledged to know the kind and amount of Swift's Red Steer Fertilizers to apply for different crops and different soils to make the farmer the most net profit.

Give the A.S.A. a chance to know you and render a service worthwhile. If you do not know the name of the A.S.A. in your community, write us.

Become one of the many satisfied users of Swift's Red Steer Fertilizers.

Swift & Company
FERTILIZER WORKS, DEPT. 45
Hammond, Ind.



A. S. A. says:

Every farmer should send for circular bulletin No. 53, "Standard Fertilizers for Michigan," issued by the Agricultural Experiment Station, East Lansing, Michigan. The following analyses are recommended for wheat and rye:

Sand, light sandy loams, heavy sandy loams, silt loams and clay loams—With no mixed meadow, manure or green manure in rotation, 2-16-2 or 2-12-2; with mixed meadow, clovers, alfalfa or soy beans, or manure, in rotation, Acid Phosphate.

Muck soils—0-12-12 or Muriate of Potash.

Swift & Company is co-operating with the Michigan Department of Soils by selling analyses as recommended above. These high analyses give you the most plant food value for your money.

Come in and let us select the analysis that meets your soil and crop requirements.

asa
Authorized Swift Agent

"IT PAYS TO USE THEM"

WORLD EVENTS IN PICTURES



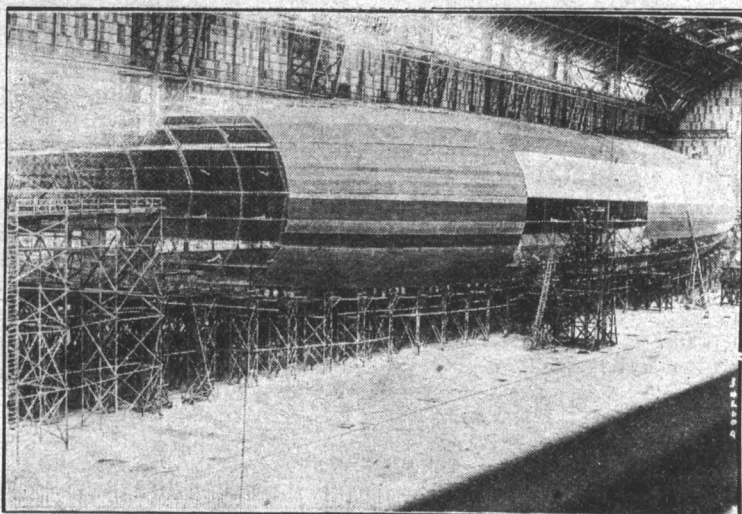
Safe and happy, this part of the 436 survivors of the Canadian Pacific Steamship Marvale, have just landed at St. Johns, Newfoundland, after suffering many hardships at sea.



The Junior Four of Smith College, Northampton, Massachusetts, recently won high honors in the college girls' Regatta, for their excellent work at rowing.



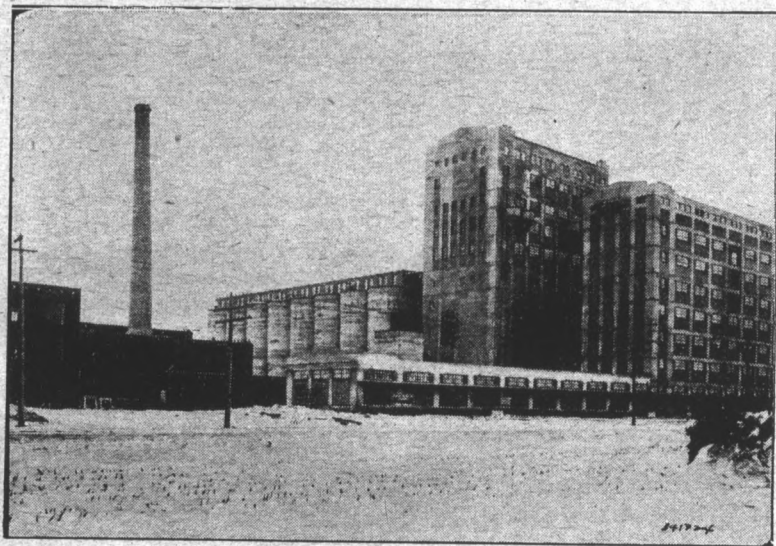
Beauty and the beast, but would Peggy Davis dare to do this in the year 1925?



The U. S. Navy Fleet Airship No. 1, formerly designated as ZR-No. 1, when completed will be 680 feet long, 78 feet in diameter, and propelled by six engines.



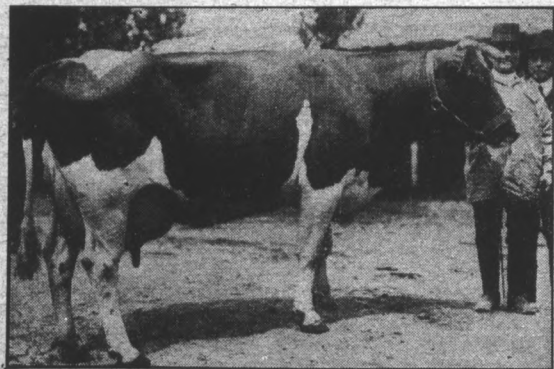
Grace Ahr was chosen as Cleopatra in an elaborate pageant for Shriners' Convention.



At a cost of nearly \$3,000,000, the only state-owned flour mill in the country is nearly completed at Grand Forks, N. D.



Showing President Harding laying his wreath on the tomb of the Unknown American Soldier in Arlington National Cemetery



This Dutch "milk machine" at the Roman Agricultural Exposition gives from eight to ten gallons of milk per day.



This Texas judge recently established a world's record by granting 212 divorces in 243 minutes.



A 900-lb. Poland China boar raised in Ames, Iowa, won first prize at the Royal Agricultural and Industrial Exposition in Rome.



BUT while her rider drew her head back till her ears touched him, the man on the ground hurried over to the barn-door and seized her by the bridle, holding her till the man jumped from the saddle. She was glad to get back into her stall and allowed them to tie her without a protest. The saddle was removed from her wet back and sides and the bit was removed from her blood-stained mouth.

She was dizzy and her heart pounded at her sides. From her wet distended nostrils the breath came like the roar of the ocean. Two sores on her back itched almost unendurably. Both sides were pierced by the cruel spurs and blood-stained. An aching pain gnawed in her palate and she could not throw off the painful sensation of grating iron from her teeth. Her body throbbed as a steamer throbs with the pounding of its engines.

They threw hay into her manger but she only sprang back and looked at them with moist, glowing eyes. They stopped in front of her manger and talked. While they talked she held her terrified eyes upon them, watching for what they might show evidence of wanting to do next. In the next stall, the two big horses, apparently unconcerned about the weight of harness still on their backs and indifferent to her troubles, stood with their greedy heads right over the hay in their manger and noisily and rapidly ground the hay in their mouths as if they were afraid that they would be taken out before they could devour all that lay before them. When the men walked into their stall and untying them started out with them, each one eagerly stretched his head backward to take a last large mouthful.

QUEEN looked after them as they went and experienced great relief at their departure, worried only by the fear that they would be coming back again. When a few minutes passed and the doorway remained unobstructed, she turned her head back again and sank into a doze which was constantly disturbed. What troubled Queen most was the shattered condition of her nerves. The slightest sound sent her into paroxysms of fear, making her heart beat with a sense of impending calamity and sending chills and waves of heat, by turn, over her body. The voices she heard coming from the yard oppressed her with a constant threatening suggestion of the men's return.

Then, some time later, she became aware of the fact that the noises were withdrawing. She heard the wag-

on rumbling away and even the barking of the dog grew fainter in the distance. A sweet silence, as refreshing as the cold water she longed for, fell upon the little farmyard; and the feeling of being alone was like an opiate.

But she was suddenly alarmed by the sensation as of some one present and turning hastily about, discovered a woman in the doorway of the barn. Queen was badly frightened. This creature was different from man but it was only a different sort of man. She gazed at the apparition which was talking in a voice that was softer than that of the men. The woman was carrying a pail full of water and came

ing a cow. Behind her, pushing its little muzzle into her hand, came a little calf. The cow walked into the stall next to Queen and there, like the horses, she rummaged about for food. For some reason known only to the cow, she did not like the hay that the horses had left, but cast her cowed eyes upon the hay that was heaped much higher in Queen's manger. She thrust her peculiar wide muzzle between two beams into Queen's manger and with her long tongue gathered some of the hay and pulled it into her own stall where she chewed it with apparent relish. Queen took a mouthful and chewed it as if the cow had

talked to her for a long time. There was something about that voice that made Queen think of ducks paddling on the surface of a pond at night, or the songs with which they sang themselves to sleep. It was a sound as of birds on branches of trees overhead pushing into each other and expressing the desire for warmth or the comfort of having it. The words followed each other slowly and softly and there was neither threat nor authority in them. Queen studied the strange face with the light playing upon it. She was still slightly uncertain about the eyes that she was afraid of and that strangely fascinated her. She was afraid to look into them, yet there was something in them that was in a way overcoming her. Was it the wetness about those eyes that in some way, perhaps never to be known, affected Queen? Was it the sympathy that the suffering have for the suffering that Queen recognized and that made her blindly place her hope in this new and mysteriously different human being?

The Old Schoolhouse

Earl L. Osterhout

The schoolhouse where I used to go
Is shabby, yes, and old
The stove is almost rusted thru,
The room is drear and cold.
The feet of countless children
Have worn the old oak floor
And signs of age are present
From the platform to the door.

The desks all bear initials
Of the kids I used to know
And my memory takes me backward
To those days so long ago.
And the memories bring a feeling
That is pleasure, yes, and pain
As I think of some old schoolmates
I may never see again.

For they're scattered from the eastland
To the mountains of the west
And a few have heard the summons
Calling them to their long rest.
Now the schoolhouse where we studied
Played and quarreled is to be sold;
It is now no longer useful,
It is out of date and old.

So we'll build a nice new building
For the children of today
With everything to help them
Make their studies seem like play.
And it surely will be splendid,
This fine new school, I know
Yet fond memories take me backward
To the school of long ago.

with it to the front of the manger. When she lifted it to set it down into the manger, Queen sprang back, frightened.

"Dink, Dora, you poor little wild thing," said the woman, backing away a bit and looking at her commiseratingly, "you're taking it so hard, you poor little Dora."

Despite her fears, Queen's ears went up straight and the glow of fear in her eyes dulled slightly. The woman went on talking to her in the same low tones, so different from the harsh, staccato sounds of the men and the boy. When the woman went out of the barn Queen turned her head and looked after her till she had disappeared. Then she turned to the pail of water and sticking her burning lips into the cool liquid she drank without a stop until there wasn't a drop of water left.

The woman came back again driv-

reminded her of what she ought to do.

"Some more water, Dora?" said the woman coming around to the front again, and as Queen jumped back frightened, she went on, "Don't be afraid of me, Dora. I won't hurt you."

She took the empty pail and went out with it, coming back a few minutes later with the pail refilled and setting it once more into the manger. She talked to her a few minutes, then went away. Queen saw her sit down beside the cow and soon heard the peculiar sound of milk streams beating against the walls of a tin pail. She watched her and listened for a while but since the cow who was most concerned in the matter seemed not the least worried, she turned to her water.

When the woman was through milking, she drove out the cow and fed the calf and then sending it out too, she came back to Queen. She stood leaning forward against the manger and

WHEN the woman went out Queen felt as she had felt on many a winter night in the wilds when some warm body next to her suddenly got up and left one side of her disagreeably cold. For the rest of the afternoon she kept turning her head toward the doorway and pricking her ears with more hope than expectation, and throughout the long disappointing hours the voice of the woman poured through her mind like a stream, like a long persistent melody, and its even flow was rhythmically measured by the one word that she remembered most clearly. "Dora." What it meant she did not know, but she felt in a vague way, when she heard it, that it applied to her.

Next morning her owner put the saddle on her again, and though she was very nervous and afraid and would have fled at the first real opportunity, the lesson went by without much of the pain and agony of the first lesson. She began to understand what every pull of the reins meant and even the differences she heard in the man's voice helped her to avoid trouble, as for instance, when by the sound of his voice she knew that he was impatient with her going too slowly and she sprang forward into a more rapid gait before the man felt it necessary to apply the spurs.

In the afternoon the woman came into the barn to give her water and to talk to her. When she patted her forehead, Queen did not resist and in

AL ACRES—Now Slim is Sure that Tin Henry Has it in For Him

By Frank R. Lee



time began to crave the touch of that hand, as she craved the sound of that voice.

Day after day she had her little run over the fields and as her fear of the farmer lessened slightly, she began to enjoy the exercise. It broke the crushing monotony of standing in the barn and gave her a chance to look at the plains she loved. So too it gave her a chance to see the other horses, none of whom were kept in the barn any longer. She found that the group in the corral had been very greatly reduced and the mysterious reduction worried her. The brown stallion was gone and with him all the horses she had known, except the little bay mare, who did not seem to be on friendly

terms with the other two horses in the corral. She was always off by herself and at the call of Queen would come rushing to the wire fence and beg her to join her.

One day the boy jumped upon her back. The man stood by and watched. The boy annoyed her by the way he sat and by the way he held the reins and she could hear the man angrily instructing him. She could feel him changing his ways and realized that the man was taking her part, somehow; but when they got away off on the fields, he tormented her. He kept digging his spurs into her sides even while she was running her best and he pulled steadily on the reins.

(Continued next week.)

Gossip from Cherry Hill

By O. W. B.

HENRY'S letter to his uncle suggests the probable reason for the city minister giving up his charge at Cherry Hill.

Cherry Hill,
June 30, 1923.

DEAR UNCLE DAVID:

I been thinkin' ever since I read your last letter that our correspondence has been kinda onesided, an Vera said tonight as we was eating supper out on the side porch what we have screened in, that the proper appreciation of a letter from one's relatives was expressed in a prompt reply. Vera usually hits the nail on the head when she says something, so I made up my mind after chores was done to start rite in an "tell you the latest news from Cherry Hill.

Well first thing off the box is that we don't have no preacher no more. You know that feller who used to come out from Carey every Sunday afternoon wen the weather was good. Well, he kinda got tired of comin' any more for he wasn't gettin' the kind of results he wanted. Fur as Lkin see the results he wanted was to get our church tired of itself and then we'd come in to swell his growin' (?) city congregation.

Well, we ain't missed him much yet an I reckon we won't either. He didn't fit in here much. He didn't grow up in this country and didn't seem to want to know much about us either. Leastwise he didn't try to learn to think like we do much. Sort of felt that if he thought like we did and talked like we did somebody might make a mistake some day and call him a country preacher, and he wasn't endowed with any ambition to be a country parson.

Some of the boys sort of laffs when they talks about the question he asked Harry Smith, that's Hank Smiths boy other side of the crick. He says to Harry one day when he was visitin' his folks, Harry was out hoein' a row of beans, "Harry them's purty fine tomatoes you got there." Harry that he was lookin' at the tomatoes in the hot bed but when Harry looked up he couldn't see the tomatoes at all an then he sorto laffed an didn't say nothin', but I bet he thot a heap.

I guess the parson missed his opportunity that day with Harry. At dinner they had Lima Beans an they was mighty good if you know anything about Mrs. Smith's cooking. Well, the parson asked if he might have some of them beans so he could plant some in his garden. So Mrs. Smith did him up a package but they wasn't shelled so the minister took them home and one day when they had been planted for a while Jack Stackem called, that's the Implement an Feed Store man an a pillar in the minister's church in town. Well, Jack was over to the minister's at a meeting of the Advisory Council.

After the meeting they was talking

about gardens an the minister said "Come out an see my beans, they's something the matter with them." Well, they all went out in back of the parsonage where there's a little two by four plot, an Jack dug up some of the beans wat was looking kinda sick, and what do you think, that minister had planted the beans right in their pods. Well, as Hank Smith says, "Wouldn't that frost the nose off a brass monkey?"

Jack thought that was too good to keep so he told Charley Gilkey and Charley Gilkey told Hank Smith and of course Hank told his wife, and you know they have a telephone so that's how we all know it and the expression most common in these parts is that "the minister don't know beans," which is literally true and figuratively about the same in regard to preachin' an leadin' country folks.

Well our Sunday School is goin' fine and so is the Christian Endeavor but sometimes I kinda think they both need revamping or a new foundation or somepthin for I guess they are in a rut. A rut you know is like a grave with both ends kicked out. Some chance left to get out.

I been teachin' a class of boys an the other day wen the weather was fine an the grass green I took em outside of the church cause the church smelled musty an it was so nice an fresh outside, and we sat down under the trees an the boys liked it fine and paid good attention. The lesson was that one about Elijah an how God fed him in the wilderness.

Well the parson complained afterwards that it looked a leetle like forsakin' the house o' God an he wished the teachers would stick to the church. Ain't all out o' doors God's church, uncle? Well he ain't comin' no more, an we are trying to get courage enough up an money enough to hire a honest-to-goodness preacher what can minister to us intelligently an be a sort of leader in the community and live here with us an be a part of us.

One trouble with our ex-brother was his particular denomination. I guess the Lord ain't worrin' much about the particular method. Well it took the parson a long time to make up his mind to let us go to perdition; but he's started now an so are we, an we are hopin' to get a good start with the right man to help us.

Our ex-parson says, we is a lot of cranks wich reminds me of a story I read. Father yells down from up stairs an says "Helen, isn't it time for the young man to go home?" and the young man says, "Your father is an old crank!" an the father listenin' over the banister heard his daughter say, "Well, when you don't have a self-starter a crank comes in mighty handy."

Hoping you are the same

Ever your nephew

HENRY O'HOPE

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Woman's Interests



The Farm In the Summer Time

When City Cousins Visit the Farm the Garden Soon Becomes a Thing of the Past

O H! the peace and the beauty of this farm scene on a hot July day! The corn is better than knee-high and has had its third cultivation. The wheat and rye is cut and in the shock, and promises well. Oats are well-headed, and the second cutting of alfalfa is in process of being hauled into the spacious barns. Cattle graze in the pasture and the spring shotes grunt contentedly in the shade. They rouse themselves just a little as Farmer Brown and his hired man, Ed, their shirts and overalls wet with perspiration, drive up the lane with another mammoth load of alfalfa.

And there is the house, and the garden and the orchard. True, on a day like this the kitchen is a hot place for Mrs. Brown but there are windows on three sides of the room to catch any breeze that may be stirring.

Strawberries have come and gone, but not all of them, for there is a row of twenty cans on the cellar fruit shelf. Also the cherries. They were used lavishly during their season, and nineteen cans stand guard in the cellar, waiting only for winter appetites.

The Scene Changes.

But there is a dark cloud hovering over this peaceful farmstead, for some time. They have discussed it on various occasions, but have been able to reach no conclusion. Every year of their married life the evil has been with them and of late years it has been worse. They do not suffer alone for their neighbors are in the same plight. Did not the Jenkinses last year have someone every day and hour for seven straight weeks, and the Smiths down the road had fourteen at one time, and in all thirty-two!

Behold! A car drives in at the gate and stops. Shrieks and laughter are heard, even before the occupants begin to pour forth. Mrs. Brown feels herself growing weak in the knees, for she knows that the worst has come! Her city relatives!

She takes one last loving look at her garden which she planned and planted with so much care. And her berry patch! Gone for this year all hopes of canning raspberries and gooseberries, for the vandals have come early. Before they leave they will rend the orchard limb from limb; berry patch and garden will be bare as city asphalt. With the quick thought that she can hide her cherries and strawberries back of the potato bin, Mrs. Brown puts a smile on her face and goes forth to extend the glad hand of welcome. After all, they are her brother's people.

And Farmer Brown! It made him feel uneasy to have a car drive in the yard, for all the morning he had had a premonition that this would be the day. When he heard the shrieks and laughter he knew the blow had come.

He stood speechless for a moment, gaping foolishly at Ed, who was making ready to send up a sling load of alfalfa. Ed, seeing the stupefied look on Brown's face, sought to make light of the calamity.

"Well, you are fixed so's you can lock the hen house this year, anyhow," said Ed. "And the calves are in the back pasture where 'taint likely they'll go just purpose to chase 'em."

This failed to cheer Brown. He sat down on an empty potato crate with his head bowed between his hands.

"All this summer's work gone for

nothing," he moaned. "Truck patch, garden, orchard! All gone! And I just nicely got the fences fixed from last year."

After a few moments he arose. Well, after all, they were Martha's folks. With the thought that he would have to keep the feed room locked, Brown put a smile on his face and went out to welcome them.—Clifford Froh.

We believe many of our readers blessed with city cousins are not alto-

gether unacquainted with similar situations as the one experienced by the Browns, and would be pleased to hear of your treatment of the case. Perhaps some suggestion of your experience might strengthen the knees of other Mrs. Browns as they begin to tremble under the weight of the added burden of entertaining. In your letter, tell how you planned your meals, what sleeping conveniences you arranged, how you entertained them, etc.—Eds.)

Oakland's Annual Picnic

Farm Women Enjoy Studying Home Management

FORGETTING household cares and home duties on Wednesday, June 27, the farm women of Oakland met for their annual picnic at Mace-day Lake, near Pontiac. Both place and day were ideal for the gathering, and a goodly number of the county's busy housewives left the home establishment in care of the older daughter or dad (we won't say hired girl), and motored to the picnic grounds to spend an enjoyable day in association with new and old friends who have the same little daily woes and worries.

After a sumptuous picnic lunch, seasoned with the usual amount of bark, bugs and fresh air, which Mother Nature contributes to every picnic repast, all listened to an interesting pro-

perience with the numerous home conveniences to know which ones are really useful in each individual case.

Evelyn Keyes, of Milford, described the good times experienced at the girls' camp last year and urged everyone possible to attend and join in the good times this year. Miss Carrett explained the program for the Mothers' Camp which is to follow that of the girls.

Some of the various communities represented performed some very unique stunts as their part of the program. About twenty ladies of the West Highland organization recalled olden times by dancing the Virginia Reel to a lively tune played on a harmonica. The Waterford group very



The Housewives were Very Much Interested in Home Conveniences.

gram. Community singing was led by Rev. Steven Clarkston. In an interesting way, Mrs. Charles Pittenger, of Milford, told of her pioneer experiences with a fireless cooker thirty years ago. She believes that no one should be without a fireless cooker, as it is so inexpensive, saves so much hustle in preparing a meal, and much work over a hot stove. She likes her home-made cooker as well as a commercial one, except for its appearance.

Miss Rogers, home management specialist from M. A. C., made manifest the rural housewives' opportunity for happiness. She contrasted the housekeeper and the home-maker and showed that it was a combination of the two that made the ideal mother who, together with a "heap o' living in a place" created what we would always hold in our hearts as Home.

Miss Woodworth, demonstration agent of Wayne county, carried the home thought into a different channel, and conjectured that if each one could have a home just as they wanted it would they be sure as to how they would equip that home. It takes ex-

cleverly portrayed the seven ages of women.

After the program, some enjoyed a swim and a boat ride, while those who did not hang their clothes on a hickory limb spent their time examining a very complete display of household conveniences collected by Miss Rogers, ranging from a patent mop wringer to a wall paper duster, and including a steam pressure cooker, steam cooker, vacuum cleaner and numerous handy things.

All together, it was an enjoyable day, and the picnickers went home with a pocketful of encouragement to complete a busy summer's work.

LIKES MARY'S METHOD.

Dear Martha:

I HAVE canned my strawberries like Mary did, and I certainly was justified, as they came out just lovely.—Mrs. F. H.

Plan your kitchen and home arrangement so that you do not do your housework in a workhouse.

Training the Children

EVEN in the busy canning season, many mothers took time to write their opinions and experiences in training children. The prize letter appears here and the remaining prize winners, Mrs. F. J. L., Gallien, Ohio; Mrs. H. M., Hanover, Mich.; Mrs. C. S., Stepenson, Mich., and Miss R. A. R., Holland, Mich., respectively, will appear in a later issue.

First Prize.

Mrs. W. H. K., Adrian, Michigan.

Vacation time brings with it added problems in discipline. We make a mistake when we think of discipline as only "making children mind." That, properly understood, it is an effort on the parent's part so to regulate the instinctive desires of the child that by his own efforts he gradually fits himself to be of worth to his generation.

The ideal is fine and helpful, but two little daughters, aged six and nine, sometimes cause me almost to lose sight of it. They are quite different in temperament and I find that what works with one is not efficacious with the other. The younger child loves to visit at a neighbor's, and after she had been over several times recently, I suggested that she should play at home that afternoon. When she disobeyed and went over there, I brought her home, gave her her supper, and put her to bed. It was only an hour before her usual bedtime, but she so loves to sit up after daddy comes in that it has kept her from running away since. Sometimes she gets angry and strikes. Then I tie a carpet rag loosely around her arm, telling her that when daddy sees that, it will make him know that the little arm has been naughty again. She would rather be punished in any way than to wear the rag on her arm. I never have to leave it on more than a few minutes before she comes to me repentant and begs me to forgive her.

The above methods do not work at all on the older child, and never did. It would only make her sullen. She

loves to read, and when I want to get her to do the things "that fit her to be of worth," all that is necessary is to say, for example, "Jane, you may read after you have practiced your music, not before, remember." To be denied her book is far more of a punishment than to be disciplined in any other way.

But these ways don't always work. Sometimes I get so discouraged that, were it not for our little bedtime talks, when the girls and I go over the mistakes of the day and resolve to make a fresh start with the new morning, I should feel like giving up entirely. And yet, I know that there is nothing more worth while.

MORE GOOD THINGS WITH GRAHAM FLOUR.

Fourth Prize.

Mrs. C. E. S., Gregory, Michigan.
Graham Bread Recipe.

Two cups graham flour
Two cups white flour
Two cups sour milk
Five tablespoons of molasses
Two tablespoons sugar
One teaspoonful salt.
One-half teaspoonful salt.

Use raisins if desired. Bake in a slow oven.

Fifth Prize.

Mrs. C. A., Grand Ledge, Michigan.
Graham Gems.

One and one-half cups milk
Half cup syrup
Two tablespoons shortening
One teaspoon salt
One teaspoon soda
One teaspoon baking powder
One and one-half cups graham flour
half cup white flour.
This will make one dozen gems.

If your curtains blow out of the window or against the screen, cover several dress weights and slip them into the hem. This will keep them in place and save continual laundering.



(Use this department to help solve your Household Problems. Address your letters to Martha Cole, Michigan Farmer, Detroit, Michigan).

CANNING STRING BEANS.

I would like to know why my beans get soft and mushy in the cans. They do not taste bad, but are too soft to be nice.—Mrs. R. A. R.

From your explanation I judge that the beans flat-soured. This condition might be caused by not canning them as soon as they come from the garden. Strictly fresh vegetables are necessary for successful home canning.

Be sure that you process canned beans in a hot water bath three hours, adding one teaspoonful of salt to each quart can, and filling with boiling water. The beans should also be blanched in boiling water before they are packed into the jars. Do not attempt to can beans in two-quart jars, as it is hard to thoroughly sterilize the center.

KEEPING SALT PORK.

We are having trouble with our salted pork. We have taken it out and scalded the brine, skimming it and smoking the barrel. We waited until the brine was cold, in which I dissolved a small amount of saltpeter. We repacked the pork. It smells and tastes good, but has a white scum over the brine. Can you tell me what to do?—Mrs. N. E. B.

You have done about everything possible toward repacking your pork

CAN VEGETABLES AS WELL AS FRUIT.

THE busy canning season is well upon us. Are you debating whether you had better can some of those peas, beans or corn for winter use?

Our new canning bulletin will perhaps answer some of the canning difficulties you had last year. For a copy of it send stamped, self-addressed envelope to Martha Cole, Desk A, Michigan Farmer, Detroit, Michigan.

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Found in Our Letter Box

Letters from Pals for Our Correspondence Corner

Dear Uncle and Cousins:

Hello! all of "U!" I have not written to "U" for nearly a year, but now "u. c." I plucked up courage and decided to let "u" know I am still alive. Yep, and feeling kinda foxy, too.

I have about twenty correspondents now, (all girls, too), and I sure receive nice snappy letters.

Well, our school building is well under way and next term I'll go to school in it. Oh! that seems nice, and to have a bus come and get me, for we have a consolidated school.

Well, I must say "so long for this time." Myrtle Walker, Woodland, Mich.

You are running quite a correspondence club of your own. Perhaps that's because you are a good correspondent.

Dear Uncle Frank:

Hurrah! I have finished my Palmer Method writing and school is out today. Anyone who takes the Palmer

like to read All Acres and Hy Syckle.

Oh! Uncle Frank, won't you please put a picture in the paper of you that you have just had taken lately? The picture was cute you put in the boys' and girls' page of you when you were little, but I want to know how you look now.

I will close now. Your niece, Dorothy Cail, Saranac, Mich.

I am glad to see you back again. That picture business is quite a problem to me. I'll have to do something about it.

Dear Uncle Frank:

Though I am a big girl, and not a "farmerette," I hail the coming of this paper with undisguised eagerness. Anxiously I have scanned the letter corner for a word from Harold Coles, defending his much mutilated advice to ladies of the "knickered and bobbed family." And at last he has re-

around for one short week, a warm week, with a couple of feet of hair hanging down your back, or piled onto your head? How would you like going on a hike into the woods and falling over logs and tearing your skirts every time you turned around? And when you wanted to go somewhere it would take you a full hour to comb your snarled locks, and after it was complete you must go around placarded, "Handle with Care" or the whole thing falls down into hopeless confusion.

Picture a nature-loving, athletic girl in such a fix. No, siree! Me for the knickers and shorn locks, no matter what he says, he cannot know! "We" speak from experience, don't we, girls of the "Family?" And Uncle Frank surely agrees. I can see it in his face.

I certainly have enjoyed the indignant defenses from the girls, and I felt it my duty to help the cause along. Hope I have.

Hail thee, dear ever-waiting waste basket! I have only expressed my sentiments.

Love to all of the writers—especially belonging to the "Knickered and Bobbed Family."

Your niece to be, Edith H. Brown, Newberry, Mich.

I think it useless to express my opinion regarding the "last word" because you, being of the feminine kind would have the last word anyhow. You have made a good defense for your side of the question.

Dear Uncle Frank:

I got the mail and found that there was a letter for me. I opened it and when I saw the membership card and button I was so surprised. I thank you very much for the them.

How old are you? I suppose you must be very old. I will guess once and see if I strike it. Uncle Frank, you must be sixty years old already. Didn't I strike the right point, Uncle Frank? Another niece Frieda Kraenzlein, Saginaw, W. S., Mich.

Why must I be old? One can be well along in years and still be young. You are at least within thirty years of my right age.

Dear Uncle Frank:

I am interested in your contests and have often tried, I think over ten times, but have never won. So you see the motto, "If at first you don't succeed, try, try again," stands good with me. The first time my sister tried she won a map. Sometimes after I look through the paper and do not find my name among the prize winners, I get discouraged, but I soon work out the next contest.

Why wouldn't a contest on "The oddest thing I ever saw or heard," be good?

I am your niece, Elsa E. Herman, Caledonia, Mich.

You certainly ought to be complimented for your stick-to-it-iveness. You are the kind of niece I like to have. Your contest suggestion is good. I will use it some time.

Dear Uncle Frank:

I write to you once a month, don't you think that's fine? I do, because you are the only person I have energy to write to.

Uncle Frank, do you make a person not win if his pen is to blame? I hope not, because my pen is very bad, and I have not much ink.

My mother and brother went to town and I had to stay home alone, but my mother brought home a hat for me and some cookies. So I was satisfied. Wouldn't you be? Your affectionate niece, Helen Paul.

All other things being equal, neat papers are preferred to others in the contests. I like papers nicely arranged and easy to read. I think I would be satisfied.



SEVERITY



LAUGH



ANGER



TERROR



SINGER

As the Other Fellow Looks. Drawn by Viola Dankenpring.

Method and likes it, please write. I don't like it.

Talk about smart cats, one of mine mewed the other day and made me follow it until I saw where one of our cows was in the hay field.

Well, I must close. Your niece, Edith Parks, Nashville, Mich.

This method and other school work would be good subjects for discussion in these columns. Let's hear from others on these subjects.

Dear Uncle Frank:

Well, I am trying the contest again. This is about six times I have tried. That old waste basket must be getting fat off of my letters. Don't you think so?

My brother, Harold, won a prize on "Who is the smartest, boys or girls?" Don't you think he wrote an awful letter, Uncle Frank?

The schools in Hillsdale county had a play called the "Historical Pageant." My brother, Harold, is a big Indian chief.

Mr. Waste Basket, I will call again soon. Birdene Coles, Montgomery Mich.

I don't suppose you have bobbed hair or wear knickers, your brother being the champion of long hair and skirts. I bet your brother made a good Indian.

Dear Uncle Frank:

I have tried the contests many times, but not since the Merry Circle began. So here I am again, trying to win a prize or receive a Merry Circle button and membership card.

I read the letters in the Letter Box and like them very much. I also

turned into the fray and I raise my voice and shout, "Bravo, Harold Coles, bravo!" Had I have been Harold Coles, I'd have been afraid to show my face for a year. Remember this, Harold Coles, the feminine sex will have the

Work to Win

THIS week the contest is going to be more like a puzzle and one that will make you think. You are to study our motto, "Work to Win," and by rearranging the letters make as many words as possible out of it. The rule is that you cannot use the letter more than once in the word unless it occurs twice in our motto.

The two sending in the longest list of correct words will receive handy pencil boxes. The next three will receive nickled pocket pencils, and the following five maps of the world and New Europe.

Address your letter to Uncle Frank, Michigan Farmer, Detroit, Michigan, before July 20.

last word, whether or no. Isn't that true, Uncle Frank?

It's all right for him to preach and hand out his priceless advice, but just let him try the life for one week. How would you, Harold Cole, like to run

What I Fear the Most

THE letters this week were both fearful and interesting. But in every case proved that each one was working to overcome their foolish fears.

Perhaps the boys were trying to show how brave they were by not telling their fears, for in the number of letters received the girls beat them again this week.

The winners are:

Pencil Box.

Florence Nelson, Memphis, Mich.
Evelyn Batten, Galien, Mich.

Pencil.

Violet Kimball, Reed City, Mich., R. 4.

Gertrude McKibbin, Cloverdale, Mich.

Alberta Reitz, Rose City, Mich.

Map.

Frances Ruesink, Adrian, Mich., R. 4.

Johnny DeWitt, Hudsonville, Mich., R. 4.

Burton Thorn, Prescott, Mich., R. 1.

Marion Schoeneherr, Utica, Mich.

Vilma Ripley, Charlotte, Mich., R. 4.

By Florence Nelson, Memphis, Mich.

Those who travel a great deal by auto, or moderate people who stay at home more and enjoy reading the daily papers, know what causes me to be afraid most of automobile driving.

I am afraid not because we are careless in driving our machine, but because of the carelessness of other drivers along the highways.

Our county has a network of good roads. About the only good we get out of them is driving over them, and we "farmers" that have a heavy tax to pay for these roads, do not get the chance to travel them much, on account of having to work to meet this tax. But when we do go we always meet fast drivers, careless drivers, and sorry to say, intoxicated drivers. So our lives are sometimes missed "by a hair's breadth."

We try to remedy this, as much as we can, by going back roads, when they are passable.

By Evelyn Batten, Galien, Michigan.

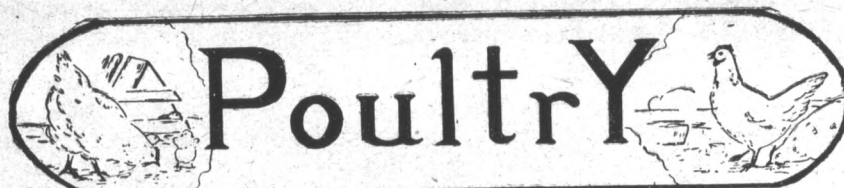
I hate the rats and love the cats,
I hate mice even more.
I loathe the dark that seems to lurk
Behind the closet door.

When in the dark without a spark,
To light me up to bed,
I hurry past to draw at last
The covers o'er my head.

No, rats and mice they are not nice,
No pleasure do they bring.
But, Uncle Frank, I fear a spank
As much as anything.

My sister Lou, and brother, too,
Put on a lot of swank.
What e're they do or say
They are too big to spank.

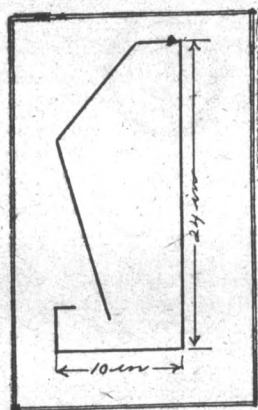
So now I know the way to go
Or so, at least, I figure,
To save the tear and cure this fear
I'll grow a little bigger.



POULTRY FEEDING HOPPER.

THE inquirers for plans or descriptions of dry feed boxes will find help from the plan of hopper shown here. It is a very handy and convenient device.

It can be made from half-inch stuff



by any boy or girl handy with tools.

When filled it allows only a small quantity of the mash or grain to run out in the open feeding space, so that a new supply of fresh feed is let down automatically as the fowls clean away what is out in front.—F. R. Teppen.

STARTING NEW POULTRY BREEDS.

FEW breeds have attracted more interest than the Jersey Black Giants. They grow to a very large size and appear to be a good substitute for turkeys on farms where a large bird is desired and they can have a large range. For producing large capons the Giants have been very satisfactory. There has been some complaint that their eggs do not hatch well. Like all large fowls they must be fed abundantly. They cannot be expected to lay like Leghorns or heavy laying types of the American breeds. No poultry breed is so perfect that it contains every desired quality and no faults.

Breeders who take up a new kind

of fowl have to help with the pioneer work of educating the public to like that breed. The breeders who raise the old substantial breeds find a large sale to buyers who already know the good qualities of their stock. The beginner often has the best success with an established breed, but poultry raising would lack much of interest if it were not for the many breeders of fowls of all types and colors who are vigorously boosting their own stock. If you have the only flock of your breed in your county you may be able to start a hundred or a thousand other breeders with that breed by advertising and showing the stock.—R. G. K.

HEAT KILLS DUCKLINGS.

What shall I do for ducks that dump around for a day or two and then die? I feed them middlings, bran and cracked corn made into a mash. Please give proper rations for young ducks.—A. McL.

Ducklings may die because of exposure to extreme heat, or a lack of vitality due to the breeding stock. Corn meal in the mash will probably prove better than cracked corn as the digestive system of ducklings will handle mash better than hard grain.

A good ration for ducklings consists of one part bran, one part corn meal, one part ground crackers or stale bread made into a mash. Then ten per cent beef scrap is added, as well as fine green food and a little sand. Be sure that the bread is not mouldy and that all other ground grains are of good quality.

I think that many ducklings died during the hot weather in June that would have lived in a cooler temperature. They need a lot of shade and fresh, cool water in such weather. A short exposure to very hot sun frequently will cause them to die.

Can it be that the great Creator had in mind, when he laid those many rapid streams across the face of our great state the approaching age of electricity?

Guaranteed 44¢ a Gallon

Motor and Tractor Oil

Direct From
The Refinery—

Think of it—right now for only 44¢ a gallon—you can buy positively the highest quality, light grade motor oil. For 46¢ a gallon you can buy the best medium grade tractor oil. At equally low prices you can buy steam engine oil—box oil—machine oil—harness oil—separator oil—oil—cup grease—axle grease—paint—varnishes and stain—everything in oils, greases and paint—direct from refinery and factory.

60 Days—Absolute FREE Trial

No Deposit—No C. O. D.—Freight Paid

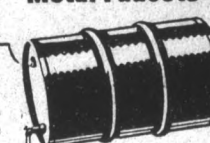
You simply select oil, greases or paints you want, from latest bulletin, send your order and we make immediate shipment. Try it out—give it every test—if not absolutely satisfied send back the balance at our expense. You pay nothing—risk nothing. After trial if you decide to keep your shipment, you have 60 days to pay. 42 years oil experience and thousands of satisfied customers back this fair-play, square-deal guarantee.

Write—For "Money-Saving" Bulletin

Amazing savings offered you. Quotes present low prices. No agents—no salesmen's commissions to pay. Tells you proper oil, grease or paint to buy for your purpose. Guarantees quality of every item. Invaluable to every farm. Rush name and address now, so you can order quickly and protect yourself on price advance. Address Dept. 101.

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Best Paying, Heavy Laying, Purebred Strains.
Tom Barron English S. C. W. Leghorns—25, \$2.50; 50, \$5.00; 100, \$10.00; 500, \$45.00; 1000, \$90.00. Park's Strain Barred Rocks; S. C. Rhode Island Reds—25, \$3.00; 50, \$6.00; 100, \$12.00; 500, \$55.00; 1000, \$110.00. Good strong broiler chicks \$8.00 per 100. Place your order at once: avoid disappointment. Get your chicks when you want them. 100% live delivery guaranteed postpaid. Instructive catalogue free. Prices on mature stock, 8—12 weeks old pullets on request.

Brummer Frederickson, Poultry Farm
Box 20 Holland, Mich.

PULLETS

Now is your opportunity to buy laying and breeding stock for next season.
8 Weeks Pullets—White and Brown Leghorns, Anconas, Barred Rocks. These Pullets are all grown from carefully built up laying flocks. They will lay this fall and winter.

Yearling Hens—White and Brown Leghorns, Anconas, Barred and White Rocks, Rhode Island Reds, White Wyandottes. First-class selected hens, laying and breeding stock for next year.
Cockerels—White Leghorns, Barred Rocks, R. C. Reds; White Leghorns. These Cock birds should be selected and bought this month, if you want Cock birds for next year.
All stock is guaranteed to be satisfactory to you. Write to us for description and prices.

STATE FARMS ASSOCIATION
Room 201 Chase Block, Kalamazoo, Michigan.

Whittaker's R. I. Reds

Hatch of July 11th \$14 per 100; \$7.50 per 50;

\$4 per 25.

Hatch of July 19th \$13 per 100; \$7 per 50;

\$3.75 per 25.

Grade "A" Chicks \$20 per 100; \$10.50 per 50; \$5.50 per 25. Prepaid by parcel post and safe delivery guaranteed. Here is your opportunity to improve your flock with Michigan's Best Reds at rock bottom prices. Order from this ad. and state whether you want Rose or Single comb. Do not delay as July 19th will be our last hatch this season.

INTERLAKES FARMS
Box 39, Lawrence, Mich.

JUST-RITE LOOK!

A Hatch Every Week All Year
NABOB HATCHERY, Dept. 15, Gambier, O.

What's a CAPON and Why?

A book that explains why capons are the most profitable part of the poultry business and everything you will ever want to know about CAPONS. 50 pictures from life that show each step in the operation. List of capon dealers' addresses. Tells how to prevent "Slips," where to get the best and cheapest capon tools. Capons are immense eating. Big profits realized. Get wise. This book tells how. Copyrighted new and revised edition. Regular 50¢ copy, prepaid to your address (a short time only) for a dime in coin or in stamps. GEORGE BEUOY, R. R. No. 40, Cedar Vale, Kansas

"Special Sale of July Chicks"

Here is your opportunity to buy good quality Chicks at these remarkably low prices.

LOOK—Assorted lots of chicks \$70.00 per 1000, \$36.50 per 500, \$7.50 per 100, \$4.00 per 50, lot. Guaranteed live delivery to your door. Write for Special and regular price list and free catalog. Order early direct from ad.

W. VAN APPLEDORN, R. No. 7, Holland, Mich.

Big Value Baby Chicks

Are guaranteed to Live. Easy to raise, husky, healthy, vigorous. Write today for free catalog showing many breeds in full colors.

THESE PRICES EFFECTIVE JUNE 11th

White Leghorns	10	White Rocks	13
Brown Leghorns	10	Buff Rocks	13
Buff Leghorns	10	Buff Orpingtons	13
Anconas	10	Black Minorcas	13
S. or R. C. R. I. Reds	12	Heavy Broilers	9
Barred Rocks	12	Light Broilers	7
White Wyandottes	13		

5% Discount on all orders of 500 or more.

OHL'S POULTRY YARDS and HATCHERY

Box G MARION, OHIO

PULLETS AND COCKERELS

Order Now for Early Fall

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, where also our stock is raised.

CRESCENT EGG COMPANY
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PULLETS AND COCKERELS

50,000 PURE BRED EXCELLENT QUALITY
6 weeks old Leghorns, 1.00, Other Breeds, 1.20
8 weeks old " 1.25 " " 1.40
12 weeks old " 1.50 " " 1.75
16 weeks old " 1.75 " " 2.00
Prices net, f. o. b. shipping point. Send remittance with order. 100% live delivery guaranteed. Pure Bred Baby Chicks orders filled until Sept. Wellington J. Smith Co., Davis-Farley Bldg., Cleveland, O.

GREENLAWN CHIX AFTER JUNE 15th

White Rox, Barred Plymouth Rox, R. I. Reds, or Black Minorcas, 13¢ each. White Leghorns, Anconas or Broiler Chix 12¢ each in 100 lots. All chix less than 100 lot 14¢. Order now for June, July and August. Our 13 years producing chix that please. Sept. Chix 15¢ straight. Greenlawn Poultry Farm, South of High School, Fenton, 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.

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, 175 Prospect Blvd., Jackson, Mich

MICHIGAN FARMER

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

30 DAYS FREE TRIAL CAN OFFER

If you want to try the Blue Valley cream market and need cream cans, we will be glad to ship you one or two extra heavy cream cans direct to your door by prepaid parcel post on 30 days' free trial. No "if" or "and" about this offer. You can ship cream to us for 30 days, or at any time within 30 days return cans at our expense, and you are not out one cent. Send no money.

Just fill out coupon below—that's all. When satisfied with our cream prices and cans, pay out of cream checks: 5-gallon can, \$2.25—8-gallon can, \$3.00—10-gallon can, \$3.35. But, remember, you yourself decide—you must be satisfied or trial costs you nothing.

Ship Your Cream Direct to BLUE VALLEY

No trouble to prove Blue Valley is your best cream market. Our cream checks will show you that we give you full value for your cream. No middlemen—no cream agent—no commission man—no one anywhere along the line between you and the Best Butter market in the world. It's simple as A B C to ship to Blue Valley. Just leave your can of cream with your railroad agent addressed to nearest Blue Valley Creamery shown below. Ask him to ship for you. That's all. We are responsible for can and cream from that moment.

Money Sent You Direct At Once

You ship direct, and your full value cream check including full weight and test is sent you direct day cream is received and empty can, tagged, cleaned, sterilized and dried, is returned to you at once.

Great Blue Valley Butter Market Makes Great Blue Valley Cream Market

Any organization of any kind, anywhere, established to buy cream direct is faced by the fact that the price the organization pays for cream, must be governed by the price of the butter it makes. Any creamery can make butter, but it takes years of experience to build up an organization that will make good, uniform butter at smallest expense and distribute it at lowest cost. The Blue Valley Butter Market is the result of making the good Blue Valley Butter and selling it in the right way for 23 years. The demand is now greater than the supply. The price is higher than the ordinary wholesale butter markets. Blue Valley Butter is the best known brand of butter in America. The butter is sold direct without expense of butter brokers and commission men.

Take Advantage of This Ready-Made Cream Market

All the expense of establishing this greater Blue Valley Butter Market has been paid for by us long ago. That means the greatest cream market in the country is open to you without any further expense on your part.

THINK—Face the Fact—ACT

Think over the fact that all this greater Blue Valley Cream Market is already made for you—then act. Just ship your cream to us, and the Blue Valley cream checks will speak to you louder than words. If more money for your cream means anything—in justice to yourself and your loved ones—make the test of what is best. Ship your next can of cream direct to Blue Valley.

BLUE VALLEY CREAMERY CO.

Detroit, Mich.
Columbus, O.
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Cedar Rapids, Ia.
Chicago, Ill.

Grand Rapids, Mich.
Kansas City, Mo.
Milwaukee, Wis.
Louisville, Ky.
Duluth, Minn.

Indianapolis, Ind.
Parsons, Kansas
St. Louis, Mo.
Clinton, Ill.

Cleveland, O.
St. Joseph, Mo.
Hastings, Neb.
Springfield, Ill.
Sault Centre, Minn.

Which one is nearest to you?

FILL OUT—TEAR OUT AND SEND COUPON TODAY

We Guarantee

That our check in payment for each and every can of cream you send us will satisfy you. We guarantee the safe return of your empty cans. If for any reason whatever you are not satisfied we expect to hear from you. We guarantee to satisfy you perfectly.

30 Days' Free Trial Cream Can Order

BLUE VALLEY CREAMERY CO.

Gentlemen: Please send me _____ gallon cream cans without obligation, on your 30-day FREE TRIAL plan.

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Complete Beginner's Outfits with or without bees. Full line of Beehives, Sections, Comb Foundation, Smokers, etc. General Agents in Michigan for the A. I. Root Co. Send for 1923 catalog. Beeswax Wanted.

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LOOK! ONLY 17¢ Per Rod & Up

Peerless Fence

Think of it! the well-known high grade Peerless Fence sold for as low as 17¢ a rod; it's because we now sell direct from factory at factory prices. This means a big saving for farmers everywhere. Write for free 104 page catalog of Fence, Farm Gates, Steel Posts, Barb Wire, Roofing, Paints—the low prices will astonish you—save you 40%.

PEERLESS WIRE & FENCE CO.
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ENSILAGE CUTTERS

are known from coast to coast as the standard. Strong, reliable, speedy, trouble-proof, easy-running, with a successful record dating back over a quarter of a century. Backed by a Guarantee that means absolute satisfaction and protection.

Ten Superior Features

Unbreakable knife wheel, center-shear cut, triple feed rollers, no vibration, "lifetime" channel steel frame, reversible shear bar, and other features are explained in the book. Send your name today.

Kalamazoo Tank & Silo Co.
Dept. 123 Kalamazoo, Mich.

FREE BOOK



Kind Treatment Pays

THE milk in this can is from contented cows—so runs the legend to be seen on a certain brand of evaporated milk. Finding ourselves in close proximity to one of the large farms, where such cows are kept, we went out of our way a bit to make the personal acquaintance of these much advertised contented cows.

The first thing to greet us upon entering the big dairy stable were two conspicuous signs which gave us to understand that the advertising slogan was backed up by practical methods of dairy work. One of them read: "No Swearing Allowed. These Are Contented Cows." The other advised us that "Kindly Treated Cows Give More and Better Milk." We hunted up the barn boss and asked him to tell more about the phase of the work suggested by the placards.

"Well, you see, it's something like this," he replied. "Those signs mean just what they say. You can understand that in a big place like this we get all sorts of help. The average helper around dairy stables is more or less of a drifter unless he happens to be some young agricultural student who comes here for a bit of experience.

"Among the men who come and go there is a certain percentage always that is accustomed to cuffing cows around, speaking harshly to them, and all that. If they do not learn anything else while they are here, they at least learn that a cow is one of the most sensitively strung of farm animals. She can tell a cross word every time from a kind one.

"And we know that a large portion of the milk drawn at any milking is manufactured so to speak, while the cow is at the pail. If a cow stands in fear of a cuff or a kick the production is curtailed. This is an important factor with us for we have at all times a number of high-producing cows on test and the 'holding back' even of a small quantity of milk at each milking makes quite a difference in the final total.

"When a new man comes into the barn we advise him as to our rules in regard to the kind treatment of our animals. We show him these signs. We impress it upon him that they are not intended for the amusement of visitors, but as a rule of conduct for the men who handle the animals. As a rule, our men fall into the spirit of the thing quite readily. Now and then we have to let a man go because he has become too set in his way."

As we drove on, the phrase, "Kindly treated cows give more and better milk," kept recurring to us. Then we remembered that the Swiss peasant usually croons to his cow while he is milking her. We recalled, also, of having read of someone who operated a phonograph in his milking stable at milking time.

Here it evidently appears, is a bit of cow psychology that has been overlooked by the average dairyman. The harsh word, the whack over the back with the milk stool, the cuff and the kick should go into the discard in stables where it is desired to secure "more and better milk" without a single extra cent of expense for additional overhead.—O. C.

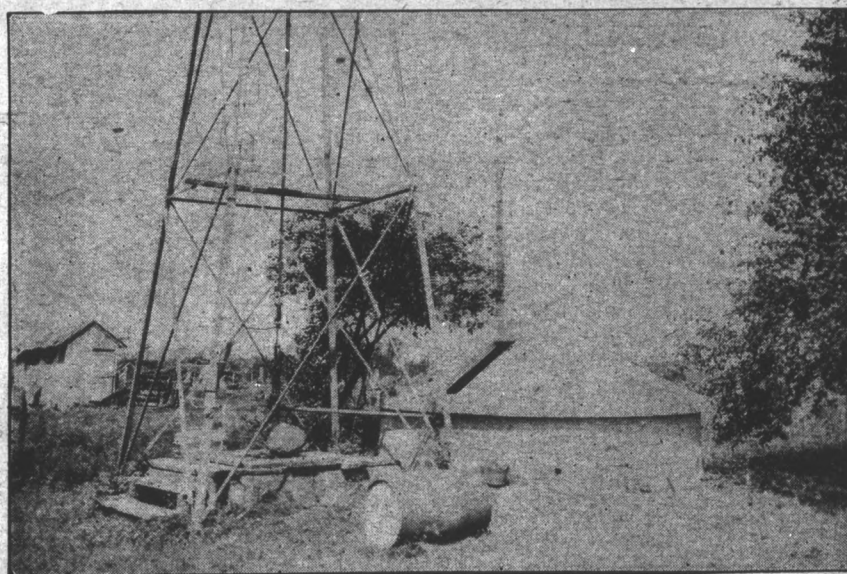
CLEANLINESS IN THE DAIRY.

CLEANLINESS is the most important factor in the production of clean wholesome milk. Much of the dirt and filth that gets into milk and produces deterioration, comes from improper methods of handling after being drawn.

However, brushing off the loose dirt and dust about the flanks and udder and wiping the udder with a dry cloth materially assists in lessening the danger of dirt getting into the milk at milking. Cows during the summer season, if stabled at night or confined to a yard, become more or less dirty about their rear quarters and should be thoroughly cleaned before being milked.

I milk my cows in a clean, sanitary stable. I spray the cows before milk-

Builds Satisfactory Water System



PHILLIP HOFFMAN is a dairyman. One day it dawned on him that the stock tank in his barn lot, lying on the other side of the highway, is considerably lower than the position of his pump and windmill near the house. He decided to take advantage of this fact, and in this way eliminate a lot of hand-pumping that was necessary in order to keep the stock tank well supplied with clean, fresh water. Accordingly he built a concrete reservoir at the base of his windmill. The tank was sunk some six feet in the earth. A concrete cover with manhole was provided. Now he pumps water by windmill power into this reservoir and permits gravity to do the work of keeping the barnyard tank supplied. It is a lot easier.—O. C.

ing. I tie their tails so they cannot switch dirt into the milk while milking. I do not allow feeding to be done at milking time. I remove the milk from the stable as soon as drawn.—Leo C. Reynolds.

STICKS TO HOLSTEINS.

AFTER forty-six years of continuous dairying, James Wilder, of Bay City, still maintains that Holsteins are best adapted to his conditions. He is now milking fifty cows. In his herd are two pure-bred sires and six promising young fellows coming along. "Herb," the son, is living proof that all boys are not leaving the farm. He is now successfully handling the Wondermeere estate.

GOOD COWS ON SERRADELLA FARM.

THE pure-bred Holstein, Beauty Petertje Canary Vale, owned by Carl E. Schmidt, proprietor of Serradella Farm, in Alcona county, has captured the state milk production record in a recent test by producing 652 pounds of milk in seven days. The

superintendent of this farm, Mr. Jenkins, also states that this herd holds both first and second places in Michigan for heifers in the senior two-year-old class. We are pleased to see that northeastern Michigan is forging ahead in every line of the dairy business.

GETTING SET FOR HOLSTEIN TOURS.

COUNTY agents in the twenty-five counties in which Holstein tours are to be staged this summer as mentioned in a recent issue, are completing arrangements for the line of march and for the noon meetings. Mr. James G. Hayes, of East Lansing, who is keeping track of this ambitious program, states that Roy W. Weinberg, of Hillsdale county, and R. W. Tenny, of Eaton county, have already sent in their schedules.

The opening leg of the tours will be staged during the week commencing July 23 in the counties of Macomb, Washtenaw, Wayne, Monroe and Ingham. Definite dates for these and other counties will be published next week.



Generous Users of Rope

ROPE is peculiarly suited to a wide variety of uses by the farmer. There are, of course, certain general purposes which everyone thinks of when they speak of rope. The hoisting of hay into the barn, and the tying of stock are perhaps the two most common needs which the farmer has for this article. But he has others as are suggested by the following letters:

CAN LEAD UNRULY CATTLE.

TO lead unruly cattle take a short piece of rope and tie around the animal's body. A longer rope with one end fixed "Y" shaped is then passed through the rope around the body and each branch of the "Y" end is tied to

It will pull the earth over any seeds or kernels which are not otherwise properly covered. I also use rope for lines when driving three or more horses abreast. It is cheaper than leather and easier to adjust.—E. Thorne, Livingston County.

KEEPS LICE FROM PIGS.

BURY one-half of an old wagon tire in the ground. Wind a piece of rope about the other half, and then soak the rope thoroughly with old oil taken from the crank case of the car. This will give you a hog oiler which will keep the lice thoroughly cleaned from the little pigs as well as from the larger hogs.—R. Wattles, Branch County.

TIES CORN SHOCKS.

I USE a three-eighth-inch rope twelve feet long, with a ring in one end for tying corn shocks. I throw the ring end around the shock, pass the other end through the ring, draw tight and tuck the loose end under to hold until I can tie the string about the shock. I am then ready for the next shock.—H. R. Mayo, Newaygo County.

HOLDS ON LOADS.

FOR tying on loads, rope cannot be beaten. I am thinking particularly of loads of baled hay. Any person who has had experience in drawing baled hay over rough roads knows how difficult it is to keep the top tier in place. A rope about fifty feet long, drawn tight around the top course of bales will hold them in one solid cluster. Each bale then helps to hold the other.—A. E. Eaton, Eaton County.

AIDS DURING BUILDING TIME.

I FIND rope indispensable when erecting big buildings on the farm, for pulling up materials, such as shingles, boards, rafters, and even in getting the frame in place.—W. E. McMullen, Huron County.

If angleworm persist in damaging special plants they can be controlled by adding lime-water to the soil.

Getting By the Dry Periods

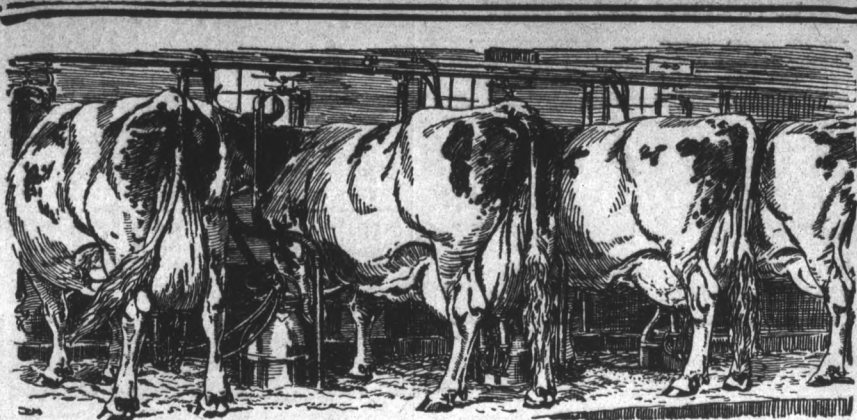
EXTENDED dry periods have brought losses to almost every farmer. How to keep such damage down to the minimum is a question in which we are all very much concerned. Soil management, changes in rotations, more live stock, irrigation, all come in for consideration on a topic of this kind.

Let us have the benefit of your experience. A high-class safety razor with blades, goes to each of the writers of the best five letters on this subject. Address yours to the Handy Man, Michigan Farmer, Detroit, on or before July 18.

a front rope. Take hold of the end extending behind the animal. When she attempts to go too fast a little pull will bring the animal to its knees and a few such experiences will take all the fight out.—John Bos, Osceola Co.

COVER DRILLED GRAINS.

IN drilling corn or beans with a grain drill tie a horse-shoe at one end of a piece of rope and fasten the other so the shoe will follow in the drill mark.



A Fair Question and a Reasonable Answer

The question is sometimes asked us, although less frequently as more and more De Laval Milkers are put in use and the wisdom of the De Laval method is demonstrated, why we make only single unit milkers.

The De Laval Milker Unit is designed to milk one cow at a time. Of course as many units as desired can be used in an installation, and all of the units, no matter how many are used, work with exactly the same uniform and pleasing action. This method has proved to be the most practical as well as the fastest.

With a double unit it is necessary to arrange the cows so that those which require about the same length of time to be milked are placed side by side, and it is practically impossible to do this unless the cows are constantly rearranged, which causes confusion and delay. Thus with a double unit, if the cows do not milk out in exactly the same time, part of the outfit is idle or is left on the cow too long.

Numerous tests have shown that two single units milk about one-third faster than one double unit, and one man can handle two single units faster than one double unit. In actual practice many De Laval operators are handling three units alone, and each unit will milk about ten average cows or more an hour.

Another advantage of the single unit, which is very important especially in purebred test work and for which many De Laval are now used, is that it is possible to weigh each cow's milk when individual cow records are desired.

Of course this is only one of many features which is making the De Laval Milker so popular with dairymen everywhere. On more than 12,000 farms the De Laval Milker is saving time and labor, increasing the production of milk, producing cleaner milk, and making dairying more pleasant and profitable. If you are milking ten or more cows by hand, you are paying for a De Laval.

Easy Terms

You can get a De Laval Milker for 10% down and the rest in 15 monthly payments of 6%. Use a De Laval while it pays for itself.

The De Laval Separator Co.

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

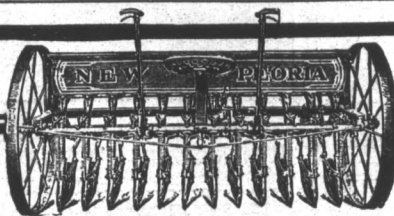


Hoosier
To Our Friends and Customers: Owing to the great expansion of our business in Hoosier Building Tile it has been decided to adopt a corporate name that will better describe our company and service. Therefore, the Hoosier Silo Company of Albany, Indiana, has changed its corporate title to the Hoosier Building Tile & Silo Co. The Company organization is exactly the same as before, except in name. Write for illustrated circular on Hoosier Silos & Hollow Tile. Hoosier Building Tile & Silo Co. Dept. M-99. Albany, Ind.

PERMANENT

FARMER: Opportunity for man with two grown sons who can make investment of at least \$5,000. 160 acre farm near Detroit, modern equipment. Milk contract at top price. Can show chance of life time to good man who is honest and industrious. Address Box 142, Michigan Farmer. DETROIT

Please Mention The Michigan Farmer When Writing to Advertisers



Peoria DRILL

Costs Less to Own the Best

New Peoria Disc Shoe Drill makes seeds *germinate sprout, grow, head out, ripen EVENLY*. No other is so successful in producing uniform stands of higher grade. No other has famous *Disc Shoe*: guaranteed *Disc Bearings* or quick replaceable *Wood Brake Pins*. If something should lodge in grain-feed, you can only break a "wood pin"—whistle a new one and go on. *Exclusive Disc Shoes* save \$10.00 in seed. *Guaranteed Disc Bearings* save \$10.00 in repairs. *Wood Brake Pins* save \$10.00 in time—total \$30.00 (average conditions)—and still New Peoria's are priced no higher than ordinary drills.

Write These Owners:

John Boston, Goodwill, Oklahoma, took First prize with "Peoria" made crop against whole world at Dry Farming Congress.

Henry Logan, Livingston, Ky., M. Rummer, Pomeroy, Wash., paid for New Peoria Drills first year from increased yield after testing with other drills in same field.

New Peoria drills made in all sizes for all grains; plain or fertilizers; horse or tractor. Write for prices.

PEORIA DRILL & SEEDER CO.

2404 PERRY AVE.

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(Exclusive Feature)

Disc cuts trash, hard ground; shoe forms furrow; seeds drop at uniform depth on packed seed bed that draws and holds moisture; covered instantly—all seeds safe from birds and wind.



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Michigan's Leading Live
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Our Product Is The Best

Painstaking, modern and scientific methods, coupled with the finest of breeding animals makes possible our enviable accomplishment.

You, Mr. Breeder, would enjoy and profit by a visit to this unique establishment of superlative breeding.

Your correspondence and inspection are invited.

WILDWOOD FARMS
ORION, MICHIGAN

W. E. SCRIPPS, Prop. SIDNEY SMITH, Supt.

Registered Aberdeen-Angus 10 heifers, 6 bulls from eight to fourteen months. Best of breeding. The growthy kind that make good. Reasonable. Inquire of F. J. Wilber, Olio, Mich.

Registered Guernseys

A fine Bull ready for light service, special terms if you wish. J. M. Williams, No. Adams, Mich.

Wallinwood Guernseys

Young bulls from A. R. cows for sale. F. W. WALLIN, Jenison, Mich.

For sale Registered Guernsey cows, May Rose Breeding also bull calves \$50 each. Registered A. R. dams. JOHN EBELS, R. 2, Holland, Mich.

WINNWOOD HERD

Registered Holsteins

?

Ask us about a Real Bull a
Maple Crest or an Ormsby.

JOHN H. WINN, Inc., Rochester, 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.

WANTED About ten good grade Holstein Cows for farm near Northville, Wayne County. Must be good milkers or to freshen this fall. Must be sound in every particular, tuberculin tested and subject to 60 day retest. Advise price and particulars. Box 714, Michigan Farmer, Detroit.

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

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

HEREFORDS

10 extra nice Repeater and Fairfax heifers from 14 to 20 months old for sale, also 10 cows.

ALLEN BROS.

616 So. West St., Kalamazoo, Mich.

HEREFORDS

Young Cows with calves by side consisting of blood from America's foremost herds at prices that enable them under Earle Hereford Beef Plan to pay for themselves within a year to 18 months. Bulls including prize winners at the largest shows at practical prices. Herd headed by Straight Edge 1169798, one of two sons of perfection. Fairfax out of a daughter of the Famous Disturber. T. F. B. Sotham & Sons, (Herefords since 1839), St. Clair, Mich.

LINE BRED MAJESTY'S

Our sire
Sunburst Origas Majesty
Whose 3 nearest dams
average 802 lbs.

For sale a Bull calf of correct type and priced to sell.

H. S. WELBORN

FIVE PINE FARM

R. 1. Kalamazoo, Mich.

BROOKWATER JERSEYS

BULL CALVES FOR SALE

From Register of Merit dams and sired by Majesty's Intense 127191 and Brookwater Veda's King 169615. Write for Prices and description. Herd is on federal accredited tuberculous free list.

BROOKWATER FARM, Ann Arbor, Michigan
H. W. Mumford, Owner, J. B. Andrews, Lessor.

BUTTER BRED JERSEY BULLS

CRYSTAL SPRING STOCK FARM,
Silver Creek, Allegan County, Michigan.

For Sale Jersey Bull Jacoba's Minute Gun No 213971 2 yrs. old. Sire Jacoba's Irene Hero, Dam Brown Lassie's Ethel. Any one interested, write to, E. V. Lamb, Jeddo, Mich.

FOR SALE: Jersey bulls ready for service. All cows Register of Merit. Accredited herd. SMITH AND PARKER, R. 4, Howell, Mich.

Registered Jersey cattle, young bulls, for sale. Tuberculin tested. J. L. CARTER, Lake Odessa, Mich.

Wish to exchange a Registered Jersey bull calf two months old and from my best cow, for one as good, Albert Fay, Levering, Mich.

30 Head of Jersey cows and heifers for sale. Chance to select from herd of 70. Some fresh, others bred for fall freshening. Colon C. Lillie, Coopersville, Mich.

Shorthorns Bidwell Revolution Jr. heads herd. Sire, Revolution, Dam, Maxwellton Rosewood 3d, 2d Dam, Imp. Rosewood 3d. Now offering one good roan two year old bull out of a Marr Mari-gold dam, also a few cows and heifers safe in calf. Prompt attention to correspondence—visitors welcome. State Accredited herd. One hr. from Toledo, O. N.Y.C. Ry. BIDWELL STOCK FARM, Tecumseh, Mich., Box D

Francisco Farm Shorthorns

and Big Type Poland Chinas. One 2 yr. old bred Heifer, \$200. Two choice yearlings, \$150, each. Three bulls, \$100, up. 3 boars, \$25 each. Lots of spring pig. of March farrow. P. P. Pope, Mt. Pleasant, Mich.

Two Scotch Shorthorn Bulls For Sale
J. A. BARNUM, Union City, Mich.

Richland Shorthorns

Special offer: Twelve Bulls from twelve to twenty four months old. Red, White, Roan. Good size, best of breeding—from good milking dams. Priced for quick sale. Write for particulars.

C. H. Prescott & Sons,

Office at Tawas City, Mich. Herd at Prescott, Mich.

HUROK County Shorthorn Breeders' Assn. can supply your needs with high class individuals. Write for list to E. E. Twing, Bad Axe, Sec. Treas.

For Sale at a Bargain, Cows and heifers from the Shorthorns, Representatives of the Oxford, Perl, Young Mary and Phoenix families, All T. B. tested. J. E. Tanswell, Mason, Mich.

Milking Shorthorns priced reasonably. An accredited herd selected for beef and milk. Beland and Beland, Tecumseh, Michigan

HOGS

Woodlawn Farm Duroc Hogs meet present day requirements, length, size and quality. Young stock for sale at reasonable prices and fully guaranteed. Write your wants. W. E. BARTLEY, Alma, Mich.

I AM OFFERING BRED SOWS

fall yearling and spring gilts, bred for March and April farrow, that are tops. Mated to O. C. K. Col. 2nd and Orion Giant Col. Write for price list. W. C. TAYLOR, Milan, Mich.

Is It Worth While?

A real boar pig sired by Woodford Sensation, Dams of Defender or Pathfinder breeding.

If so, We have them of Sept. farrow, not only showing extreme quality, but greater size than you will expect to find. Follow M 29 to

Kope-Kon Farms, Coldwater, Mich.

DUROC JERSEYS Spring pigs either sex of March April and May farrow, sired by three outstanding herd boars. If you want size type and quality combined come and see or write us. F. J. Drott, Monroe, Mich. R. 1

Duroc—Jerseys A few Pathfinder Gilts Bred to a good son of Foust's Top Col. E. D. Heydenberk, Wayland, Mich.

Durocs April farrow \$12.50 reg. for a short time. Fall gilts, \$20, to \$25, breeding quality. Satisfaction or money back. B. E. Kies Hillsdale, Mich.

DUROC JERSEYS AND DELAINE MERINOS, CAREY U. EDMONDS, Hastings, Mich.



THE SHORTHORN SALES.

THE sales of pure-bred Shorthorns on the Prescott Ranch at Prescott, and the Bidwell Stock Farm at Tecumseh were the outstanding cattle events of late June.

The Prescott's draft of around fifty head from their Richland herd, which contains more than 200 pure-bred cattle, was an excellent lot, and as was anticipated and desired, were disseminated largely through Northeastern Michigan. Several of Mr. Bidwell's best buyers were also those near home.

These progressive breeders glean considerable satisfaction from the way their neighbors have taken hold of their offerings, as well as evidence that their product is appreciated abroad, by the fact that a number of

of supplemental forage near the field I am planting later to use for sheep pasture, and in this way the forage crop helps out the pasture.

Stubble fields, meadows after the hay has been removed, and even pastures that have been grazed with cattle the fore part of the season, are good sources. On several occasions I have been able to rent a stubble or meadow field for a few weeks to supply my flock with a change of pasture. —Leo C. Reynolds.

CATTLE MARKET GETS A BUMP.

CATTLE prices received a severe jolt last week when arrivals at the leading markets increased about eight per cent and accumulation of dressed beef as a result of the recent hot spell made slaughterers indifferent. All



Not a Circus, But the Third Annual Shorthorn Sale on the Richland Stock Farms at Prescott, Michigan's Largest Shorthorn Institution.

the good ones in each sale were purchased for shipment to old Mexico.

Prices did not rule high, \$275 being the top in the Prescott sale for a good young cow, going to an Indiana buyer, and \$300 taking the outstanding cow in the Bidwell sale, going to the milking herd of Beland & Beland, but even at prices around \$140, the approximate average, Mr. Prescott says, "what is there on the farm that pays better when they are grown largely on cheap grass?"

As in the recent Hereford sales, many new breeders have shown wisdom by getting into the business at the very bottom where there is no top-heavy load to overcome. There can be but one way for their venture to grow, and that is up.—Pope.

ROTATING SHEEP PASTURE.

SHEEP should have a frequent change of pasture during the summer season. Where pasture is grazed for any length of time it becomes what English flockowners term "sheep sick," or dry and woody. Sheep do better if changed from one pasture to another, thus allowing the pasture to rest and recruit a new growth of tender palatable feed.

Pastures grazed by sheep for months at a time are subject to parasitic infection which often causes loss to the flockowners. There is no method of ridding pasture when once infested; the only effective means of combating the evil is prevention. Where sheep are kept on the farm year after year every precaution should be exercised not to allow the flock to graze for long periods on the same pasture, but alternate frequently as the change is not only a preventive to pasture infection, but stimulates appetite and promotes the growth of grasses.

During the summer season it is somewhat difficult to supply the flock with a change of pasture. I find it a good practice to have growing plenty

kinds of steers, cows and heifers declined in value.

Losses of seventy-five cents to \$1.00 were scored on light, half-finished yearlings at Chicago as the high price of corn and approach of the harvest season encouraged premature marketing while the public seems to want the better grades of beef or none at all. Long-fed, mature steers and the few choice fat heifers and cows arriving suffered least, but are fifteen to twenty-five cents lower than a week ago.

During the first half of July, market arrivals are unlikely to increase much and prices even on grassy kinds may work up again. But, before the month is over, Kansas and Oklahoma grassers will be filling southern markets, and the vanguard of western rangers will appear at northern points. These additions to present sources of supply will tax beef trade channels. While southwestern pastures are said to have fewer mature cattle than usual, the percentage of feeders will not be extremely high, as the pastoral areas have had plenty of moisture and should be able to put most of their inhabitants into killing condition. For the same reason, the range beef harvest should be well distributed over the season.

Stocker and feeder demand subsided last week as farmers are extremely busy. Old corn is high priced, the new crop is not yet assured, and the probable supply of late summer and fall forage is uncertain. July always is a dull month in this division, but if the corn outlook is favorable, a broad demand can be expected a month hence.

In several sections of Michigan there is an unprecedented demand for millet and Sudan grass seed, due to the shortage of the hay crop. Where these seeds are not available, oats have been substituted. Also turnips are being sown extensively for feeding purposes.

OIL BARREL MAKES GOOD SWILL BARREL.

I intend to use a steel cylinder oil barrel for a swill barrel. Is it good to use one or not? Some say it is no good.—O. W.

I can see no reason why a steel oil barrel should not make a first-class swill barrel. I have one made of steel that has been in use for several years with the best of results.—Pope.

PIGS LOSE USE OF HIND LEGS.

I have nine little pigs nine weeks old, which have lost all use of their hind legs. Their appetites are good. We have tried to doctor them but nothing seems to be any good.—G. B.

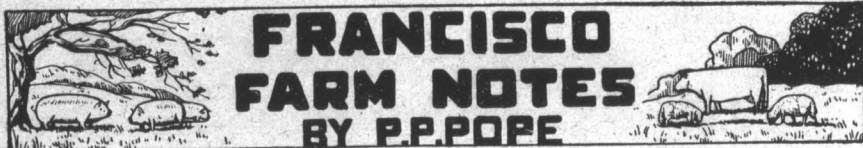
The ration of your little pigs, and perhaps of their mother, has been undoubtedly unbalanced. It is hard to tell the cause or suggest a remedy without knowing more about the con-

ditions under which these pigs have been brought up. It would not be at all surprising if they were wormy.

As good a remedy as we know of, is made up of three grains of santonin and two grains of calomel fed in a little slop on an empty stomach (eighteen hours off feed). This is a dose for a fifty-pound pig.

If pigs are allowed free access to a mineral mixture made up of wood ashes, salt, lime, sulphur and charcoal, it will go a long way toward avoiding such troubles as you are having. After they go down, however, it is advisable to adopt more heroic methods.

A remedy that often proves effective in such cases as yours is as follows: To each fifty pound pig, one tablespoon of cod liver oil, fifteen grains of phosphate of lime, and three drops of fluid extract of nux vomica daily, divided into two feeds and given in a little slop.—Pope.



PERHAPS it is too much to expect that the ordinary farm, like ours, which is no exception to the average good farm of Michigan, should always appear in keeping with our desires, yet the farm that is to pay dividends at this particular period must surely return from each acre a satisfactory crop and at a very conservative cost.

Beets Looking Good.

Bob says we are going to have a good crop of beets, anyway. Although it has been necessary for us to take to the hoes ourselves and go into the best of the beets, in order to keep the blockers good-natured and on the job to the finish, the blocking is at last finished and a good job done.

Another day will clean out the green blotches of corn and grass and thistles that show up here and there over the field and leave it in very presentable shape.

We are delaying the hay making a little in order to do this work ourselves. The beet workers would do it in time, but we snatched a bit of time to remove these big weeds that the cultivators have missed, and that sap the moisture, rob the beets, and hurt the eyes.

Next Comes the Hay.

Nearly a half of the clover blossoms are now turning brown. The mower must start at once. There is a beautiful crop of clover to harvest. A seeding of six pounds of June clover, two pounds of alsike, and two pounds of alfalfa per acre on the wheat, followed by a spike drag to help cover, has left a perfect stand. It is thick and even all over the field and the top-dressing that the manure spreader gave after the wheat was removed last summer has not stunted it any. It is lodged in many places, and in walking through the thick woolly mass, one gets a sensation down in the pedal extremities similar to that acquired in wading up stream in water so deep.

We like to do the mowing for each day's haul late in the afternoon or before noon of the following day, always putting hay that has partly cured, in the windrow that evening. Dew falling on cured hay in the swath and drying off again will cause many leaves to shatter and be lost, and hay raked up when thoroughly cured and just previous to hauling, will be loose and fluffy, and be hard to handle. While hay raked the day before it is to be hauled, and just as soon as it has cured enough to rake good, will finish its curing in the windrow, with as little as possible of its leafy surface exposed to dew and sun. It will settle in the windrow, require less tramping on the load, and the loader will do a

cleaner job gathering it up when it is ready to go into the barn.

Hay of the best possible quality can be made in this manner in the shortest possible time and with a minimum of labor.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Advice through this column is given free to our subscribers. Letters should state fully the history and symptoms of each case and give name and address of the writer. Initials only are published. When a reply by mail is requested the service becomes private practice and \$1 must be enclosed.

Fetlock Joint Lameness.—Early last spring a swelling appeared on fetlock joint of mare; this swelling increased, and now it reaches hock. She is not very lame; have applied three applications of Gombault's caustic balsam and rested her for the past three weeks. When she walks fetlock joint knuckles over. I did hard work with her all last winter. C. E. S., Gros Cap, Mich.—You are treating the case intelligently, but the mare needs more rest.

Long Wart on Udder.—I have a two-year-old heifer that has not yet freshened but she has a growth much like a wart situated close to teat, and it is the same size as her teat. What can I do to remove it? L. B., Le Roy, Mich.—A wart of this kind can be safely cut off, or tied off, using a silk or linen thread. Apply boric acid to wound three times daily.

Infected Udder Following Wounded Teat.—I have a heifer that has been milking for four months; one month ago another cow stepped on her udder, cutting teat. In a week her bag congested. Since then I draw only a little stringy, watery milk and her quarter is hard. Is she apt to lose this quarter of udder? R. S., Lambertville, Mich.—Apply equal parts of tincture of iodine and camphorated oil to quarter once a day. She will perhaps lose the use of this quarter, especially this season.

Seed-warts.—I have heifer calf five months old which has what I call seed-warts, mostly on head, but few on other parts of the body. W. E. D., Mendon, Mich.—If you will apply olive oil freely to warts once or twice daily, and give her thirty drops of Fowler's solution of arsenic at a dose twice a day it will cure her. In my practice I invariably cut out warts; they are only skin deep and the wound soon heals, therefore much time is saved, and recovery more certain.

Heifer Has Never Been in Heat.—I have a heifer which has failed to come in heat. What can I do? She is the making of a fine dairy cow, if she breeds. H. M., Rosebush, Mich.—The best known remedy for this kind of case is Yohimbine hydrochloride, and it should be given three times a day. Tablets are sold under the name of vetol for use in veterinary practice. If she is a twin and has a brother she may never breed.



Insures Healthy Hogs

An occasional RED SEAL Lye bath for Mr. and Mrs. Hog and their pen pays big profits. Lye will also sweeten the swill and insure healthy pork at killing-time.

Successful stockmen, dairy-farmers and poultrymen use RED SEAL Lye in a hundred different ways—as a spray for trees when dormant, a cleaner for automobile transmission-cases, farm-machinery and household needs. (Do not use on aluminum.)

RED SEAL Lye softens water and makes the best soap you ever saw. Booklet explaining uses in detail, sent on request.

Full directions in each can. Be sure and buy only the genuine RED SEAL Lye.

P. C. Tomson & Co.
PHILADELPHIA, PA.



North Western Ontario (Canada)

Comprising the District of Kenora, Rainy River and Thunder Bay.

A Great Opportunity For Intending Settlers

The land is easily cleared; grain and vegetables grow as well and in as great variety as in the older part of the Province. Wheat has been produced of as good quality as "Manitoba No. 1 Hard." Game is plentiful and of many kinds and fish abounds in the rivers and lakes.

The summers are warm and the winters cold and bracing but the dryness of the atmosphere makes the cold less felt.

Much of this land is within ten or fifteen miles of large cities or towns. With excellent railways and highways, good markets are assured.

If you are planning to own a farm of your own, you may have 160 acres of this rich agricultural land, in some Townships free, and in others at 50 cents per acre. Land closer to centres not owned by the Province may be purchased from \$2. per acre up.

For information write:

S. H. WILSON,
Ontario Government
Colonization Agent,
Port Arthur, Ont.

Hon. Manning Doherty,
Minister of Agriculture,
Parliament Buildings,
Toronto.

HOGS

FOR SALE A few Duroc Gilts bred to the best sire in Michigan.
CLARENCE B. CALKINS, Wayland, Mich.

Benjamin's BIG TYPE CHESTER WHITE'S Early maturing, prolific, heavy weight, prize winner kind from bloodlines of Champions and Grand Champions, now making big money for thousands. I have started more breeders on road to success than any living man. Let me help you. Easy to start. Costs little. G. S. Benjamin R. F. D. 10, Portland, Mich.

CHESTER WHITES WATCH our ad for fall bred sows and gilts.
WEBER BROS. 10 Mile Rd. West Royal Oak, Mich.

Chester Whites Herd headed by The Monster and Iowan's Jumbo. Two great Big Type boars of the breed.
FRED L. RODIMER, Reese, Mich.

Chester Whites Gilts bred for fall, also spring pigs. C. O. D. recorded free. Albert Dorr, Clinton, Mich.

CHESTER White-2 show boar prospects by Prince Big Bone and Advance Type. Gilts bred for August farrow and spring pig. Priced reasonable and satisfaction guaranteed. John C. Wilk, Alma, Mich.

O. I. C's and Chester Whites

Gilts sired by Mich. State Fair Gr. Champion 1921, and bred for March and April farrow to Mich. State Fair Jr. Champion 1922, the common sense type and price.

ANDY ADAMS, Litchfield, Mich.

O. I. C. and Chester Whites. Spring Boars sired by Monster Boy, Col. Denby and Hill's Big Buster. Bred gilts all big type reg. free.
J. W. Howell, Ovid, Mich.

O. I. C's. Orders booked for late farrowed spring pigs at \$10 to \$12 each. Registered free. C. J. THOMPSON, Rockford, Mich.

O. I. C. Spring pigs, single or in pairs. Price right. Satisfaction guaranteed.
E. O. Badgley, Jackson, Mich. R. F. D. 1.

O. I. C. One last fall boar, 10 last fall gilts bred, 100 this spring pigs, recorded free. 1/2 mile west of Depot. Citz's Phone, Otto B. Schulze, Nashville, Mich.

O. I. C. March pigs, single or in pairs, also bred gilts for August farrow.
CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C's One yearling boar and March pigs, Young Brown Swiss bull, Mile H. Peterson, Elmhurst Farm, Ionia, Mich. R. 2.

Quality Poland Chinas

Sired by a good son of Orange Glansman. Now offering a few fall gilts and spring pigs of either sex.
S. S. BURRILL, Reese, Mich.

Big Type P. C. some very choice boars double in Bmune, out 1100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

Line Bred Liberators

By Revelation and Peter, The Great, boars. The last word in Poland China Breeding. Bred sows and spring pigs of either sex. Prices right. Vaughan's Seed Farm, Ovid, Mich.

RADIO GIANT

Represents the world's largest strain of Poland China Hogs. Boars, Sows, Pigs at bargain prices from Mich. pioneer herd. We have bred them big for 30 years. We can furnish what you want.
JNO. C. BUTLER, Portland, Mich.

L. T. P. C.

Choice Gilts \$25 to \$40. Boars \$30. Fall Pigs \$15. HART AND CLINE, Address F. T. HART, St. Louis, Mich.

BOARS READY for service. Spring boars at weaning time and gilts bred to (Ambition Again) for Sept. farrow. They are priced to sell and shipped on approval. Dorus Hoyer, Akron, Mich.

Large Type P. C. Largest in Mich. A few fall pigs for sale. Sired by "The Wolverine" a grandson of "The Rainbow and Big Bob" the greatest yearling boar I ever owned has size combined with quality. Come and see the real kind.
W. E. LIVINGSTON, Parma, Mich.

Large Type P. C.

The Real Kind. A few of those big, smooth, stretchy, bred gilts for sale. Bred for March, April and May farrow. Priced right.
N. F. BORNOR, Parma, Mich.

Large Type Poland Chinas

For sale Fall Boars, Gilts bred or open. Herd headed by two Grand Champion boars.
A. A. FELDKAMP, Manchester, Mich.

Large Strain P. C. 2 nice gilts with pigs by side, also pigs at weaning time.
H. O. SWARTZ, Schoolcraft, Mich.

WALNUT ALLEY Big Type Poland China Boar pigs ready for new homes. Give me a chance to tell you about them. A. D. Gregory, Ionia, Mich.

B. T. P. C. Fall Sows, Big Bob and Peace and a son of Alaska. M. C. Mount, Mayville, Mich.

Lone Maple Farm L. T. P. C. Spring pigs ready. Also yr. boar. Write for description and prices. F. R. Davis & Son, Belding, Mich.

Large Type P. C. Pigs for sale. Registered \$15. Enquire Sunnyside Farm, Hillman, Mich.

Hampshires A few bred gilts left. Place your order now for your boar pig. Pairs not akin. 10th year.
JOHN W. SNYDER, R. 4, St. Johns, Mich.



THE LATEST MARKET REPORTS



GRAIN QUOTATIONS

Monday, July 9.

Wheat.

Detroit.—No. 2 red \$1.15; No. 2 mixed \$1.15; No. 2 white \$1.15.
Chicago.—July \$1.03½; September \$1.03½; December at \$1.06½.
Toledo.—Cash \$1.14.

Corn.

Detroit.—Cash No. 2 yellow at 92c; No. 3, 91c; No. 4, 89c.
Chicago.—July 83c; September 76½c; December 63½c @ 63¾c.

Oats.

Detroit.—Cash No. 2 white 48c; No. 3, 47c; No. 4, 46c.
Chicago.—July 39½c; September at 35½c; December 37½c.

Beans.

Detroit.—Immediate and prompt shipments \$5.75 per cwt.
Chicago.—Choice \$7.50; red kidneys at \$8.15.
New York.—Choice pea \$7.75; red kidneys \$7.75 @ 8.

Rye.

Detroit.—Cash No. 2, 69c.
Chicago.—July 65½c; September at 65½c; December 70½c.
Toledo.—Cash 67½c.

Barley.

Detroit.—Malting 72c; feeding 68c.
Chicago.—62 @ 68c.

Seeds.

Detroit.—Prime red clover cash at \$10; alsike \$9; timothy \$3.30.

Hay.

Detroit.—No. 1 timothy \$17.50 @ 18; light mixed \$16.50 @ 17; No. 2 timothy \$15.50 @ 16; No. 1 clover at \$12 @ 14; No. 1 clover mixed \$14 @ 15; straw at \$11 @ 11.50.

Feeds.

Bran \$31; standard middlings \$35; fine do \$38 @ 38.50; cracked corn at \$40.50 @ 41; coarse cornmeal at \$39; chop \$34.50 per ton in 100-lb. sacks.

Fruit.

Apples.—Good \$3.50 @ 4 per bushel.
Strawberries.—24-qt. case, Michigan, good \$4 @ 5.

Cherries, Michigan, 16-qt. cases at \$2 @ 2.25; sweet \$5 per bushel.

WHEAT

Wheat prices have shown no decided trend in the last two weeks but have fluctuated over a narrow range slightly above \$1 at Chicago. The winter wheat harvest has been progressing favorably and early threshing returns have averaged about as expected. Black rust has appeared over a large territory in the northwest in the last few days with weather conditions in its favor. Little damage has been done so far but there is much apprehension and a crop scare may develop at any time which would have a pronounced effect on the market. The Canadian crop prospects are brilliant, although storms have caused some injury recently and black rust is a menace. Foreign wheat crop reports are mostly favorable. Italy will have 44,000,000 bushels more than last year and France 33,000,000 bushels more, according to latest estimates. The Argentine acreage for harvest next December and January promises to be larger than last year. Receipts of new wheat at the primary markets are increasing. Foreign buyers are not aggressive as the European harvest is at hand and surpluses in exporting countries look ample. The slump in foreign exchange also blocks export business. The stability of the market at the present level is a hopeful sign.

OATS

Oats prices declined to the lowest of the season last week. They are cheap compared with corn, receipts are not large and the visible supply is only 8,532,000 bushels compared with 42,743,000 bushels last year. The new crop is maturing under favorable conditions with strong prospects of a larger yield than in 1922.

CORN

Corn has made rapid growth in the last few weeks but is not yet up to normal at this season. Many fields are weedy also. Unofficial estimates on the acreage are far apart, some indicating an increase and others a decrease as compared with last year. Cash demand has broadened again as industries are expanding operations and purchases by feeders are rather persistent. The live stock production outlook suggests heavy domestic consumption during the next twelve

months. Export sales are small. Receipts of corn at primary markets have been gradually increasing and last week the heaviest since April. The visible supply is small but increased slightly last week, so that the tension may gradually reduce for a while.

SEEDS

Clover seed prices are still weak and at the low point of the season, with alsike now quoted nominally higher than red. New crop prospects continue favorable. Timothy seed prices are stable.

FEEDS

Feed markets are declining again as interior demand is dull, stocks are ample and offerings are increasing. Bran for September and October shipment is quoted at \$1.50 below prompt shipment prices and new crop cottonseed meal is quoted at a discount of \$3 to \$5 below prevailing prices. Compared with prices on feed grains, by-product feeds are beginning to look cheap, suggesting that the market is nearing bottom.

HAY

The department of agriculture reports that the 1922 hay crop has been well cleaned up with 90 per cent of the market surplus of timothy, and 98 per cent of the alfalfa and 97 per cent of the prairie hay disposed of by June 15. A little more timothy but less alfalfa and prairie is on hand than at the same time last year. Besides the rather light carryover, the new crop is not yielding well and much of the first cutting of alfalfa was spoiled by rainy weather at cutting time. Although recent rains should be helpful, pastures are not up to par in many sections and the demand for hay on most markets is more active than usual at this time of the year. Some of the best new hay is being warehoused in anticipation of a heavy fall demand from the southeast.

WOOL

The wool market manifested a better tone last week and the end of the recent sagging tendency appears to be at hand. Most of the weakly held wools have been disposed of. Mills are beginning to buy once more and find few bargains offered. Foreign markets are firm at the recent decline especially at London with Continental countries the chief buyers. Mills are still consuming wool at a high rate on

old orders. In the west conditions remain quiet. In the bright wool states 46 to 48 cents is the going price for most clips with choice wools up to 50 cents or slightly higher.

BEANS

Demand for beans increased slightly after the July 1 inventory period but it is uncertain how long the spurt will last. Choice hand-picked whites are quoted at \$6 per hundred pounds f. o. b. Michigan shipping points and light red kidneys at \$6.90 @ 7. Shippers estimate that between 400 and 500 cars are left in the state and if demand continues fairly good they will be cleaned up, but if the demand tapers off the market is likely to sag. No official estimate of the Michigan acreage is available but unofficially it is placed at 10 to 12 per cent higher than last year, which would be practically equal to the acreage in 1917 and 1918. Beans for September shipment from the new crop are quoted at \$5.50 @ 5.75.

POULTRY AND EGGS

Scarcity of good quality eggs lent support to the market last week and prices for this grade will probably reach a slightly higher level. Production still exceeds current consumption and warehouses are full, so that it is not probable that the general run of eggs will sell much better than at present. As the supply of hot weather eggs increases during the next few weeks, a wider spread on prices can be expected. A "bearish" report on storage holdings is expected, as the opinion is widespread that the report will show holdings to be the largest on record.

Chicago.—Eggs, miscellaneous 21 @ 21½c; dirties at 18 @ 19c; checks 18 @ 19c; fresh firsts 21½ @ 22c; ordinary firsts 20 @ 20½c. Live poultry, hens at 24c; broilers 33 @ 34c; roosters 12c; ducks 20c; geese 18c; turkeys 20c.

Detroit.—Eggs, fresh candled and graded 23 @ 24c. Live poultry broilers 45 @ 48c; heavy hens at 23 @ 25c; light hens 30c; roosters 14c; geese at 12c; ducks 24c.

BUTTER

With an active demand for butter for storage in distributing markets and a shortage of top scores as a result of recent hot weather, the butter market developed strength last week and prices were maintained without

difficulty. This was contrary to the expectations of many dealers who had been predicting declines of three to four cents on top scores during the course of the month. Reports on the make for the whole country for the week ending June 30 showed a decrease as compared with the preceding week, indicating that the peak has been passed. Imports at New York for the week consisted of 2,817 casks of Danish, Estonian and Holland butter. Danish butter is selling in New York at prices as much as one cent higher than that generally paid for domestic 92-score.

Prices on July 7 were: 92-score fresh butter, Chicago 37½c; New York 38c; Boston 39c; Philadelphia 39c per pound. 90-score centralized carlots, Chicago at 37c; New York 37 @ 37½c; Boston 38c; Detroit fresh creamery in tubs sell for 35 @ 36½c.

CHEESE

The recent declines in the Wisconsin cheese market failed to have much influence over distributing markets where prices were firm at from one to one and one-half cents over the country quotations. The recent hot weather was reflected in poor quality receipts so that the buyer of fancy cheese had trouble in locating supplies. This was a steady factor. Storing of cheese is going on on a larger scale and stocks are heavy compared with last year.

POTATOES

Potato prices advanced sharply last week. The total value of shipments from producing sections has been declining gradually for several weeks. Shipments of new potatoes for the season to July 2 were only 20,993 cars compared with 29,459 cars last year. Advance reports indicate a material reduction in the acreage in the late potato states. Carolina Irish Cobblers are quoted at \$5.75 @ 6.50 per barrel and Bliss Triumphs at \$1.75 @ 2.75 per 100 pounds in leading midwestern cities. Prices are 25 to 50 per cent higher than last year.

DETROIT CITY MARKET

Buyers were anxious for tomatoes, spinach, asparagus, strawberries, cherries and raspberries, while the call for peas, eggs, radishes, onions and potatoes is moderate. Those offering lettuce, beets, rhubarb, cabbage and carrots are meeting a slow demand. Outside tomatoes began business here at \$3 per basket. The supply of potatoes is light at 75 @ 85c per bushel, with the bulk at 80c. Cherries are selling at \$4 @ 4.75 and are in moderate supply. Cabbage is coming fast and selling at \$1.50 @ 1.75 per bushel. Veal is light at 15c per pound. Strawberries are now in good demand and the price is up to \$7 @ 8 for fancy 24-quart case offerings. Peas go to the \$3 mark for fancy. Eggs wholesale at 28 @ 30c and retail at 30 @ 40c. Live poultry are in light supply at 24 @ 28c wholesale, and 25 @ 30c retail. Broilers are at 35 @ 40c.

LIVE STOCK SALE.

Holstein.

July 17—L. E. Conell, Fayette, Ohio.

Herefords.

July 26—L. Whitney Watkins, Manchester, Mich.



Mr. L. Whitney Watkins

Requests the honor of your presence at

WATKINS FARM

Near Manchester, Michigan

on Thursday, July 26th, 1923

10:30 A. M. RECEPTION; Michigan Hereford Cattle Breeder's Ass'n. and visiting Farmers. 12:00 Noon LUNCHEON Barbecued Hereford Baby Beef.

1:30 P. M. AUCTION; 1st Annual Watkins Farm Sale of 63 HEREFORD CATTLE.

45 Lots (18 calves presented free with their dams) 5 Bulls including an excellent son of the King of Hereford Sires Perfection Fairfax, and another out of a great daughter of Beau Mischief. 40 Cows and Heifers. All the best Hereford blood represented. First Class individuals. Prices are sure to be low in keeping with present farm conditions. Sale under cover rain or shine. For Illustrated Catalog, address:

T. F. B. SOTHAM & Sons, Sale Mgr's.
ST. CLAIR, MICHIGAN

Live Stock Market Service

Monday, July 9.

DETROIT

Cattle.

Receipts 507. Market steady at last week's close.

Fancy light yearlings.....	\$ 9.50 @ 10.00
Best heavy steers	8.75 @ 9.25
Handyweight butchers	7.50 @ 8.50
Mixed steers and heifers	6.50 @ 8.00
Handy light butchers.....	6.00 @ 7.00
Light butchers	5.25 @ 6.00
Best cows	5.75 @ 6.25
Butcher cows	4.00 @ 5.00
Cutters	2.50 @ 3.00
Canners	1.50 @ 2.25
Choice bulls	5.50 @ 6.00
Bologna bulls	5.00 @ 5.50
Stock bulls	4.00 @ 4.75
Feeders	5.50 @ 6.50
Stockers	5.00 @ 6.00
Milkers and springers.....	40.00 @ 80.00

Sheep and Lambs

Receipts 496. Market steady.

Best lambs	\$15.00 @ 15.25
Fair lambs	12.00 @ 13.50
Light to common	9.00 @ 11.00
Fair to good sheep	5.00 @ 6.00
Culls	1.50 @ 2.50
Yearlings	7.00 @ 11.50

Veal Calves.

Receipts 569. The market is \$1 @ 1.25 higher.

Best	\$14.00 @ 15.00
Others	8.00 @ 13.00
Fair to good	12.00 @ 13.00
Light to common	8.00 @ 11.00

Hogs.

Receipts 968. Market active.

Mixed hogs and yorkers...	\$ 7.85 @ 8.00
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Pigs	7.25
Heavies	7.00 @ 7.50

CHICAGO

Hogs.

Receipts 85,000. Market is fairly active on good kinds; slow on others. Bulk of good 180 to 250 lbs., average \$7.40 @ 7.60; tops \$7.65. A few good and choice weighty butchers sold at around \$7.45; packing sows brought \$6.25 @ 6.40, and good weight pigs \$6.50 @ 7.

Cattle.

Receipts 23,000. Market is fairly active. Better grades of beef steers and yearlings sold steady. Lower grades were slow. Top steers brought \$11.50; she stock and veal calves were generally steady; bulls ruled strong to 15c higher. Bulk of good bologna bulls \$4.75 @ 5; bulk of calves went to packers at \$10.75 @ 11.25.

Sheep and Lambs.

Receipts 21,000. Fat lambs mostly 25 @ 50c lower. Good and choice natives sold at \$15; culls at \$8 @ 8.50. Sheep were offered in small numbers with the market steady, medium to heavy ewes brought \$5 @ 6.

BUFFALO

Cattle.

Receipts five cars. Market is slow.

Hogs.

Receipts 20 cars. Market higher.

Heavy \$8.40 @ 8.50; yorkers and pigs	\$8.65 @ 8.85.
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Sheep and Lambs.

Receipts one car. Market is steady.

Top lambs at \$16; yearlings \$12 @ 13;	wethers \$7.50 @ 8.50; ewes \$5.7.
Calves at \$14.	

GRASSHOPPERS ON THE JOB.

REPORTS from Manistee county state that the annual raid of grasshoppers is on in the northern part of that county. As yet the southern part of that county is having no trouble. Reports from Grand Traverse county indicate that no material damage is being done there by this pest. The greatest damage is being done where farms are located in proximity to large tracts of cut-over land.

FEAR GYPSY MOTH IS IN STATE.

FEAR is expressed that the gypsy moth, said to be one of the most destructive insects in the world, possibly has found its way into Michigan. Requests have been sent out by the State Department of Agriculture asking that farmers and others who have received shipments of nursery stock from Massachusetts submit them for inspection. The state of Massachusetts has spent around fifty million dollars in an effort to exterminate this pest. It is, therefore, important, that if it has arrived in the state its presence be known early in order to stamp it out before it is widely spread.

BAN ON ENGLISH LIVE STOCK CONTINUED.

THE ban on the importation of live stock from England because of the persistence of the hoof-and-mouth disease in that country, will be continued indefinitely, according to a department of agriculture statement. A new outbreak of the disease has caused abandonment of plans for lifting the embargo. The welfare of the entire live stock industry in the United States, the department specialists declare, demands the utmost care be exercised in keeping out such a dangerous enemy as foot and mouth disease.

COUNTY CROP REPORTS.

Hillsdale Co., July 4.—The wheat crop is very good, as is also rye. Oats are short, but have an excellent color. Corn is doing well. Hay, except alfalfa, is light. There is some milk being sold. Farmers are discouraged because farm products are on the downward trend in prices, while supplies are advancing.—W. W. M.

Jackson Co., July 5.—Corn, beans and potatoes are looking fine. Rye and wheat are about eighty-five per cent of normal. Outlook for apples is good. The help situation is in a bad way. Practically all farm work is being done by the older people.—J. W.

Berrien Co., July 1.—Wheat is ripening fast and oats are heading short, due to heat and dry weather earlier in the season. Plenty of rain recently. Hay is a light crop. Corn is looking very good. Late potatoes are up and the stand is encouraging. Mint fields are promising. Pears are light, apples are heavy, while peaches show about one-half crop. Grapes are about normal, with many vines turning yellow from some unknown cause.—L. D. R.

Schoolcraft Co., July 2.—Fruit and grains are looking excellent. Only a few potatoes have been planted. The farmers are growing such crops as they are able to handle with their own labor.—F. G.

Lapeer Co., July 2.—The drought has been broken. Wheat looks the best it has in years. Hay is short and corn not as far advanced as it should be. Sugar beets were planted generously and look promising. Late potatoes are just coming up. Only an occasional field of early potatoes can be found.—A. C.

St. Joseph Co., July 1.—All crops are about the average, except clover and timothy hay. Alfalfa is fine. Cherries are good; corn is up to the average; wheat is thin; rye a fair crop. Farmers are busy haying and cultivating. Corn fields have many weeds. No crops to market at this season of the year. Grain is ripening fast. Farm prices are too low as compared to labor and manufactured articles.—H. S.

Antrim Co., July 1.—Potato acreage is smaller due to the unfavorable marketing conditions of last year and to the labor situation. Hay and grain are good on low land and a little short on high land. Fruit prospects are favorable.—O. J. O.

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results under classified headings. Try it for want ads and for advertising miscellaneous articles for sale or exchange. Poultry advertising will be run in this department at classified rates, or in display columns at commercial rates.

Rates 8 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 6 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order.

Real estate and live stock advertising have separate departments and are not accepted as classified. Minimum charge, 10 words.

Rates in Effect October 7, 1922

Words	One time	Four times	Words	One time	Four times
10.....	\$0.80	\$2.40	26.....	\$2.08	\$6.24
11.....	.88	2.64	27.....	2.16	6.48
12.....	.96	2.88	28.....	2.24	6.72
13.....	1.04	3.12	29.....	2.32	6.96
14.....	1.12	3.36	30.....	2.40	7.20
15.....	1.20	3.60	31.....	2.48	7.44
16.....	1.28	3.84	32.....	2.56	7.68
17.....	1.36	4.08	33.....	2.64	7.92
18.....	1.44	4.32	34.....	2.72	8.16
19.....	1.52	4.56	35.....	2.80	8.40
20.....	1.60	4.80	36.....	2.88	8.64
21.....	1.68	5.04	37.....	2.96	8.88
22.....	1.76	5.28	38.....	3.04	9.12
23.....	1.84	5.52	39.....	3.12	9.36
24.....	1.92	5.76	40.....	3.20	9.60
25.....	2.00	6.00	41.....	3.28	9.84

All advertising copy discontinuance orders or change of copy intended for the Classified Department must reach this office ten days in advance of publication date.

MISCELLANEOUS

LEAF TOBACCO, five pounds chewing \$1.75; ten, \$3.00; twenty, \$5.25; five pounds smoking \$1.25; ten, \$2.00; twenty, \$3.50. Pipe and Recipe free. Send no money, pay when received. United Tobacco Growers, Mayfield, Ky.

TOBACCO—Natural Leaf, 4 years old. Satisfaction guaranteed. Chewing, 5 pounds \$1.50. Smoking, 5 pounds \$1.25. Second grade smoking 6 pounds \$1.00. Pay when received, including postage. Cob pipe free. Hancock Pool, Hawesville, Kentucky.

CORN HARVESTER cuts and piles on harvester or windrows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only \$25 with fodder tying attachment. Testimonials and catalog FREE showing picture of Harvester. Process Harvester Co., Salina, Kansas.

NATURAL LEAF TOBACCO. Chewing 5 lbs., \$1.75; 10 lbs., \$3.00. Smoking 5 lbs., \$1.25; 10 lbs., \$2.00. Pay when received, pipe and recipe free. Farmers Co-operative Tobacco Union, Paducah, Ky.

TOBACCO—Extra Smoking, 5 lbs., \$1.00; 10 lbs., \$1.50; 20 lbs., \$2.75. Chewing, 5 lbs., \$1.50; 10 lbs., \$2.75. Quality guaranteed. O'Connor Smokehouse, S-133, Mayfield, Ky.

MONEY TO LOAN ON FARMS, 6% interest. No commission. No mortgage tax. Security Mortgage Corporation, 1018 Majestic Building, Detroit.

DOGS

FOX TERRIERS, Collies, Bulls, Pointers, Setters and Hounds. Carl Poos, Dearborn, Mo.

The Real Estate Market Place

Special discount given when used in combination with 7 other Capper Publications. Write for special real estate advertising rates on these papers which reach over a million and a half families

RATES

For Real Estate Advertising On This Page

35c a line per issue on 4 time orders

40c a line per issue on 1 time orders

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

INTERESTED IN Sheep or Cattle? THEN LOOK!

3200 Acre Central Michigan Ranch.

All fenced, good buildings, large feeding barns, silo, 170 acres cleared, splendid land. A sea of Grass, Alfalfa, Clover and Blue Grass. Wonderfully watered, close to Chicago and Buffalo markets, alongside the largest Grain Bins in the world—The Corn Belt of America, Indiana, Ohio, Illinois, Iowa. \$12.50 per acre. Terms. PORTER & WYMAN

112 W. Western Ave. Muskegon, Mich

65 Acres, Horses, Cows, Poultry, Growing Crops, Implements.

Twenty minutes drive to 2 large market towns, mail delivered, 52 acres productive loamy tillage, 13 acres wood and stream watered pasture, several hundred cords wood, milk and cream collected, 6 room house, painted, cellar, well water, 80 ft barn, hen house, granary, tool shed, aged owner must retire, includes 2 horses, 3 cows, 3 calves, 125 poultry, farm tools, 10 acres oats, 9 acres corn, 4 acres beans, 3/4 a. potatoes, 2 acres millet, hay, etc. Price \$3700, small cash payment, possession at once. Write or see L. E. LOTT, Elmdale, Mich., or MICHIGAN FARM AGENCY, 628 Ford building, Detroit.

In Noted Resort Section

66 Acre Equipped Farm

Between Detroit and Chicago; all ready for business; big acreage, crops now growing; near R. R. town; loamy fields, spring-watered pasture; attractive 7-room house, barn, poultry house; quick buyer gets 3 horses, 3 cows, hogs, poultry, cream separator, implements, tools and to settle now 1/2 a. potatoes, 8 a. hay, 16 a. oats, 12 a. rye, 14 a. corn, 1/2 a. garden, 1/2 a. berries, alfalfa included; only \$5,500, part cash. Details page 18, Illus. Catalog. Copy free. STROUT FARM AGENCY, 4212H Marquette Bldg., Chicago, Ill.

50c ACRE CASH: 50c ACRE MONTHLY BUYS

TEXAS—ARKANSAS grazing, oil, farm, or timber land. Get particulars. No obligation. Gulf Realty Company, 1021 Bedell Bldg., San Antonio, Texas

FARMS—SUNNY SOUTHERN JERSEY Many bargains Catalog Just Out. Copy Free. Stocked and equipped. Some require only \$500 cash. Income producing homes. Vineland Farm Agency, 549 A. I. Landis Ave., Vineland, N. J.

Sell Your Farm by my quick and easy buyers. Send for particulars. Albert J. Shirley, Box 385, Kalamazoo, Mich.

25 ACRES in Ferry to Sell or exchange for Automobile. Consider anything but an Overland. D. Ward, Ada, Mich., R. 4.

Send for new land bargains. We have what you want. Jenkins and Jones, Ada, Mo.

NEWS FROM CLOVERLAND

BANKS AID FARMERS IN SECURING DAIRY CATTLE.

RUDYARD, of Chippewa county, is the center of a flourishing dairy section. A little while ago a second carload of high-grade cattle was shipped to this district. The banks at the Soo cooperated in making possible the purchase of this stock. To meet the demand for a broader market for the products of these rapidly increasing herds, a creamery has been opened.

WOULD SELL SPHAGNUM MOSS.

MANY northern Michigan farmers are interested in the market for sphagnum moss. This is used for various purposes, chief of which seems to be for packing, and by nurserymen in general. Those interested should write Apiary Inspector, Department of Agriculture, Lansing, Michigan.

GOGEBIC LOOKING AHEAD.

IN the economy of her agriculture Gogebic county is looking to the dairy cow to pave the way to a larger and more substantial income. Under a cooperative plan a carload of pure-bred stock has been added to her herds.

The banks financed the purchase of the cattle, which were distributed from the Ironwood fair grounds. Under the arrangement the cattle are being paid for by the proceeds from the sales of milk. Farmers are to be given three years to pay up the loans, which can be done in monthly installments of not less than three dollars.

Some conditions which purchasers

are required to meet, are to breed to pure-bred sires, to make daily weighing of milk, and monthly tests, to keep these records, and to follow the advice of the county agent in feeding.

Nothing takes some men so completely off their feet as seeing a comfortable chair.

Holmes, Stuve Co., 2429 Riopelle St.

Commission Merchants. Dressed Beef, Hogs, calves, Poultry, Live & Dressed. Provisions, etc. Correspondence Solicited. Ref. Wayne County & Home Savings Bank. Bradstreet. Detroit, Mich. Cherry 7654

Why not spend Saturday night and Sunday in DETROIT?

HOTEL Fort Shelby

Lafayette Blvd. at First St.

Michigan people prefer this hotel for its service, courtesy and fairness of charge. The Fort Shelby Garage is one of the finest in the world. Great excellence at moderate prices in the Cafe.

Rate per day \$2 and up Double \$3.50 and up

For Sale by Owner

Improved Farms—Tracts 40 to 1000 Acres in OKLA., ARK., LA., N. MEX., Small cash payment, balance on time, low interest rate. Buy now while lands are cheap. Lands are already going up. Send for booklet describing 200 Farms.

American Investment Company

Oklahoma City, 603 Colcord Bldg., Okla.

Own a Farm In Minnesota, Dakota, Montana, Idaho, Washington or Oregon. Crop payment or easy terms. Free literature. Mention state. H. W. Byerly, 71 Northern Pacific Ry., St. Paul, Minn.

For Sale or Trade for Farm. Seven apt. house located in Jackson, Mich. Rental \$225. per month. Give description, price, taxes and incumbrance in answer. JOSEPH J. MARTIN, R. D. 3, Albion, Mich.

For Sale Owning 3 farms, must sell 60 acres, fair buildings, all cleared, rich black soil except gravel pit, 10 minutes to Lansing, \$2,000, down, balance easy. ARNOLD, Box 64 Lansing, Mich.

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

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

CASH YOUR PROPERTY QUICKLY, location immaterial. Give best price. Universal Sales Agency, Box 43, N. Topeka, Kans.

Want to hear from party having farm for sale. Give particulars and lowest price. JOHN J. BLACK, Capper St., Chippewa Falls, Wis.

IF YOU WANT TO LIVE in California write Kings County Chamber of Commerce, Hanford, California, for free booklet.

FOR SALE Southeastern Colorado—irrigated and non-irrigated farms and ranches. Write for free information. Gregg Realty Company, Lamar, Colorado.

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

Good farm for sale 76 1/2 Acres. Good building, 150 fruit trees 1/2 mile to large store, two churches, school. Write C. W. Shanafelt, Ewart, Mich.

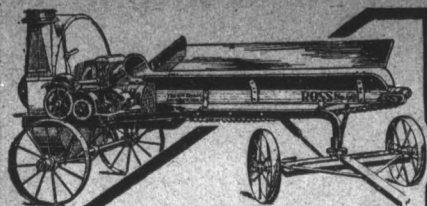
I Want Farms in Mich. for cash buyers. Describe and state price. R. A. McNew, 324 Wilkinson Bldg., Omaha, Neb.

Farm Wanted Near school; at spot cash price. Mean business. Fuller, Wichita, Ka.

Farm Wanted Immediately. Send particulars. Mrs. BALDWIN, 1931 Forest, St. Louis, Mo.

Wanted to hear from owner of farm for sale. Mean business. J. W. Houck, Tiffin, O.

WANTED buyer for improved irrigated farm by J. L. Felton, Eden, Idaho.



ROSS Ensilage Cutters

BEFORE you decide on any Ensilage Cutter—at any price—mail the coupon, or a post card, for full information regarding the Ross. This *sturdy, low-speed, smooth-running* machine has led the field for years—and it is *better this year than ever before!*

BETTER SILAGE Less Power Needed— and Built for Heavy Duty.

The Ross stands right up to the work. No matter how heavy the corn, it runs smoothly, steadily, *cutting every piece slick and clean*—saving all the rich juices. No mashing. No chewing. No shredding. The Ross is a real cutter!

Write at once for catalog—prices—full information. Find out about the Ross boiler plate steel blower and cutting apparatus—ball-bearing end-thrust—positive knife adjustment. *Get all the facts—and then decide.*

E. W. ROSS ENSILAGE CUTTER CO.
AND SILO
Successors to The E. W. Ross Co.
Dept. 214 Springfield, Ohio

E. W. Ross Ensilage Cutter
and Silo
Dept. 214 Springfield, Ohio

Send full information regarding Ross Ensilage Cutters.

Name _____

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General Laboratories

430 Dickinson St.,
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RURAL HEALTH

By Dr. C. H. Lerrigo

SAFETY IN THE SILO.

A SHORT time ago a farmer was asphyxiated while working in a silo. This recalls the fact that deaths have occurred on several occasions in this manner, and in view of the constantly increasing importance of the silo it seems wise to give a few words of warning.

The danger comes from exposure to the carbon dioxide gas that accumulates in a partially filled silo. This gas is an essential feature of silage, in fact, it is the principal preserving agent. There is little or no danger during the ordinary process of filling. It requires from several hours to several days for the gas to accumulate, and so long as the work goes on it is fanned away. The trouble comes when a silo is partially filled and the silage allowed to stand for a day or several days, or merely overnight in some cases. By that time the carbon dioxide has had opportunity to accumulate and may have gathered in sufficient quantity to prove dangerous. The gas is heavier than air and does not give much warning to one who is a few feet above it; thus a person jumping down on to the silage might be asphyxiated without realizing the danger.

To avoid danger always test the air at the level of the silage before entering a silo in which gas has had a chance to accumulate. The test may be made by lowering an open lantern to the surface of the silage. If its flame is dimmed in any degree it is an indication of carbon dioxide, and the gas must be fanned away before anyone can work there with safety.

Should a worker be affected by the gas the only thing to do is to get him into the fresh air as quickly as possible and give stimulants. If he has stopped breathing he may be restored by artificial respiration, going through exactly the same procedure as you would to restore breathing in a drowned person.

Well ripened silage does not form so much carbon dioxide gas, nor does it form so rapidly. The time for special watchfulness is when filling a silo with immature corn, cut into fine pieces. The silo doors above the level of the silage should be held open so long as the silo is in process of filling.

BABY'S SORE EARS.

I have a baby six months old who has sore ears; the ears are not sore on the inside, but just behind them. The baby seems to be very healthy and does not scratch his ears.—Mrs. B. De V.

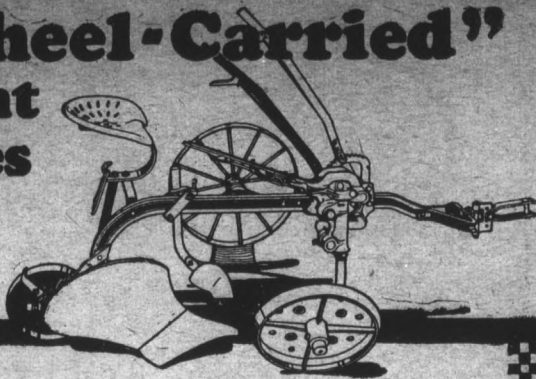
This is probably a form of eczema. It seems to be a mild attack and in such cases all that is necessary is to apply pure olive oil to soften any scabs, and keep the surfaces clean. Do not use any force in removing the scabs. Don't try to wash the ears with water. Use the oil, and clean gently with a piece of soft linen.

DROPSY AND EXERCISE.

Would like to know if exercising would help a person if their flesh is of a dropsical nature. Please let me know if it would help me, or what would you recommend?—Miss E. M.

Dropsical swellings are very different from good sound tissue. Such enlargements are apt to be due either to heart or kidney disease. In either case violent exercise is harmful. The first step is to have an examination that will show the exact cause of the trouble. Then proper treatment may be given.

"All Wheel-Carried" Pulls Light and Makes a Good Seed Bed



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