

MICHIGAN FARMER

AND
LIVE STOCK
PUBLISHED WEEKLY.

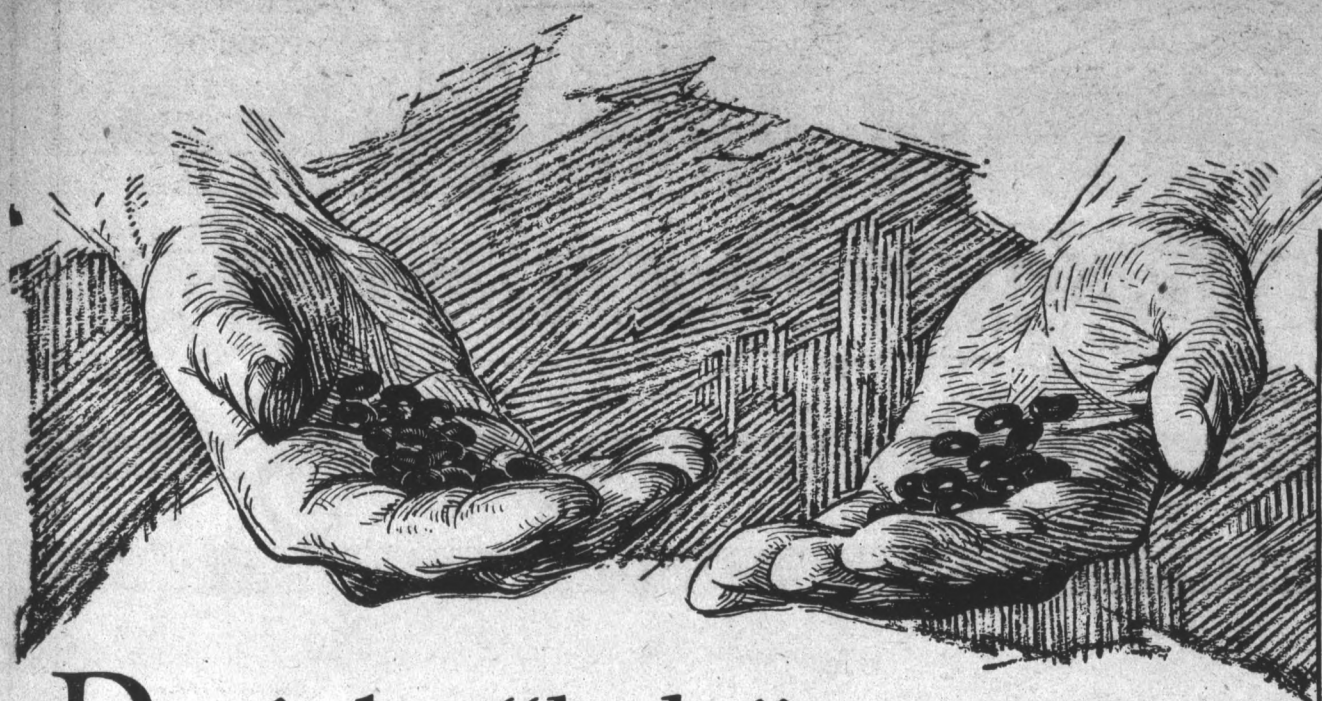
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ONE YEAR \$1.00
FIVE YEARS \$3.00





Don't let "looks" rob your pocket-book

*You can't choose oil
or Black Valentine beans by "looks" alone*

THESE bean seeds certainly look alike. They even come from the same family—Black Valentine. But one pile will grow fancy stringless beans which earn a good profit.

The other variety will grow just plain, stringy beans. It isn't safe to judge by appearances!

It costs even more to pick oil on looks alone. The poorest may look like the finest, and it is impossible to tell *from appearance* whether or not an oil is the right one for your motor. The eye can't detect the difference. But your motor can, and though it may not immediately complain, a poorer crop of power and a bigger crop of wear are as sure as tomorrow's sunrise.

Talk with any man, who doesn't judge by appearances, who buys *certified* seed and *pure-bred* cattle, and you'll find a man who uses good judgment in his treatment of automotive equipment. He will tell you that the cheapest oil may provide the most expensive lubrication, and that one unnecessary breakdown, one repair bill for prematurely-worn parts, will quickly wipe out any fancied saving.



Mobiloil

Make the chart your guide

A man of this type is very likely to use Mobiloil, because:

- 1 He refuses to be fooled by appearances.
- 2 He knows that no other company has *specialized in lubrication* as has the Vacuum Oil Company.
- 3 His judgment in selecting Mobiloil is backed by the approval of practically every manufacturer of automobiles, motor trucks, and farm tractors.
- 4 He is *sure* of getting the correct oil for each individual car, truck, tractor, or farm lighting unit.
- 5 He has proved that Mobiloil is the most economical oil to use.

Gargoyle Mobiloil is not a gasoline by-product. It is refined from crude stocks chosen solely for lubricating qualities. The Vacuum Oil Company has specialized exclusively in lubricating oils for over 58 years, and its recommendations are accepted as scientifically correct by engineers all over the world. Make the Chart of Recommendations your guide.

You will obtain economical results from this certified oil just as truly as you obtain profit from the certified seed which comes from your experiment station.

Chart of Recommendations

(Abbreviated Edition)

THE correct grades of Gargoyle Mobiloil for engine lubrication of both passenger cars and motor trucks are specified in the Chart below.

How to Read the Chart:

- A means Gargoyle Mobiloil "A"
- B means Gargoyle Mobiloil "B"
- BB means Gargoyle Mobiloil "BB"
- E means Gargoyle Mobiloil "E"
- Arc. means Gargoyle Mobiloil Arctic

Where different grades are recommended for summer and winter use, the winter recommendation should be followed during the entire period when freezing temperatures are experienced.

The Chart of Recommendations is compiled by the Vacuum Oil Company's Board of Automotive Engineers, and represents our professional advice on correct automobile lubrication.

	I	1924	1923	1922	1921	1920
NAMES OF AUTOMOBILES AND MOTOR TRUCKS	Summer Winter	Summer Winter	Summer Winter	Summer Winter	Summer Winter	Summer Winter
Anderson:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Apperson (6 cyl.)	A	A	A	A	A	A
Auburn (Model 6-63)	A Arc	A Arc	A	A	A	A
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Autocar:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Buick (8 & 9 cyl.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Cadillac:	A	A	A	A	A	A
Chalmers:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chrysler:	A	A	A	A	A	A
Checker Cab	A	A	A	Arc.	Arc.	Arc.
Chevrolet (Models F & T)	A	A	A	A	A	A
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chrysler:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Cleveland:	A	A	A	A	A	A
Cole:	A	A	A	A	A	A
Col'bia (Det.) (Con't Eng.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Cunningham:	Arc.	Arc.	Arc.	Arc.	Arc.	A
Davis:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Dodge Bros.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Dorris (6 cyl.)	A	A	A	A	A	A
Dort:	A	A	A	A	A	A
Duesenberg:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Durant Four (6 cyl.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (6 cyl.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Fleet:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Ford:	BB	BB	BB	E	E	E
Franklin:	BB	BB	BB	A	A	A
Gardner:	A	A	A	A	A	A
Garford (1½, 1½ ton)	A	A	A	A	A	A
" All Other Models	A	A	A	A	A	A
G. M. C. Co's Engines	B	B	B	B	B	B
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Graham Bros.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Gray (Det. Con'dale)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Haynes (6 cyl.)	A	A	A	A	A	A
(12 cyl.)	A	A	A	A	A	A
H. C. S.	A	A	A	A	A	A
Hudson Super Six:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Hupmobile:	A	A	A	A	A	A
Jewett:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Jordan:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Kissel:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Louisville (Con't Eng.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Lincoln:	A	A	A	A	A	A
Locomobile:	A	A	A	A	A	A
Mack (Con't Eng.)	A	A	A	A	A	A
McLaughlin-Buick (Can.)	A	A	A	A	A	A
Marmion:	A	A	A	A	A	A
Maxwell:	A	A	A	A	A	A
Moore (Com'l)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Moon:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Nash Four & Six:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
(Com'l) (Quad.)	A	A	A	A	A	A
Sixes (Mod. 6-51)	A	A	A	A	A	A
National (Ind.) (Mod. 6-31)	A	A	A	A	A	A
" (Mod. 6-51)	A	A	A	A	A	A
" All Other Models	A	A	A	A	A	A
Oakland:	A	A	A	A	A	A
Oldsmobile (4 cyl.)	A	A	A	A	A	A
" (Mod. 30)	A	A	A	A	A	A
" All Other Models	A	A	A	A	A	A
Overland:	A	A	A	A	A	A
Packard (Eight)	A	A	A	A	A	A
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Paine (Con't Eng.)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (Mod. 7-51)	A	A	A	A	A	A
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Paterson:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Peapack (8 cyl.)	A	A	A	A	A	A
Pierce Arrow (12 ton)	A	A	A	A	A	A
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
R. & V. Knight:	BB	BB	BB	B	B	B
Reo:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Richenbacher:	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Reiser (Mod. 4-75)	A	A	A	A	A	A
" All Other Models	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Rollin:	A	A	A	A	A	A
Rolls Royce:	A	A	B	B	A	A
Sears & Roebuck (\$48)	A	A	A	A	A	A
Star:	A	A	A	A	A	A
Stearns Knight:	B	B	B	B	B	B
Stephens:	A	A	A	A	A	A

Makes of Engines

When Used in Passenger Cars and Motor Trucks

(Recommendations shown separately for convenience)

[illegible]

Transmission and Differential

For their correct lubrication, use Gargoyle Mobiloil "C," "CC" or Mobilubricant as recommended by complete Chart available at all dealers.

Domestic Branches:

New York
(Main Office)
Boston

Philadelphia
Pittsburgh
Buffalo

Rochester
Dallas
Chicago

St. Louis
Detroit
Indianapolis

**Milwaukee
Minneapolis
Des Moines**

Kansas City, Mo.
Oklahoma City
Peoria

Springfield, Mass.
Albany
Portland, Me.
New Haven

VACUUM OIL COMPANY

DEVOTED
TO
MICHIGAN
VOLUME CLXIII

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
PUBLISHED WEEKLY. ESTABLISHED 1843.

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

QUALITY
RELIABILITY
SERVICE
NUMBER THREE

Stop, Mr. Cucumber Beetle!

Thy Days are Numbered and Thou Shalt no Longer Work Havoc in Melon Patches

AT last we have a material that will kill ninety-eight per cent of all striped and spotted cucumber beetles and aphids. Tests made by experimenters show this. The material is nicotine sulphate dust.

Cucumber beetles require a three or four per cent (actual) nicotine sulphate dust to be effective, while plant lice are killed by a two per cent dust. It has been observed that aphids rarely appear in a field protected against "cuke" beetles through this application of a three or four per cent nicotine sulphate dust.

Naturally, growers are highly pleased that a material has become available for the protection of their vines against the ravages of these persistent pests.

Through the cooperation of the extension division of the M. A. C., manufacturers and local dealers, demonstrations have been conducted in the following counties: Allegan, Barry, Branch, Berrien, Cass, Kent, Macomb, Muskegon, Oceana, Ottawa, Saginaw, St. Joseph and Wayne. This month farmers in Arenac, Gratiot, Lapeer, Kalamazoo, Van Buren and Nawaygo counties will have opportunity to witness the effective relief that this dust affords.

When Warmed the Dust Kills Quicker.

When the day is warm nicotine dust will kill quicker than if the day is cool. It merely requires more minutes when the dust is cool before the insect dies. Some of the insects die within the first twenty seconds, while others require ten minutes to two hours. Some often fly a short distance before succumbing.

Growers using nicotine dust for the first time are usually misled by the fact that half of the beetles fly away from the plant and only a few dead ones can be found on the ground. For this reason, demonstrators use a screen cone to cover a few plants, and under this they place twenty-five or fifty

By H. A. Cardinell

Extension Specialist in Horticulture at M. A. C.

beetles. As soon as the beetles settle upon the foliage and begin feeding nicotine dust is blown through the screen. Many of the striped beetles fly immediately to the top of the cone. These are the ones that would appear to have escaped had no cone been placed over the hill. However, one by one the beetles will be seen to fall to the ground dead, and rarely are any found alive at the end of twenty minutes.

A Good Duster Most Important.

A good duster is of more importance than the type or grade of dust to be used. Practically all control measures used against the striped or spotted cucumber beetles carry some proportion of lime. Any lime preparation is less injurious to the plant when a fine but uniform quantity is applied than when large quantities are sifted or

thrown onto the plants as is the common practice in Michigan. A good duster will coat both surfaces of the leaves. This will prevent feeding from the underside.

Nico-dust Kills and Repels.

Nicotine dust kills all insects that have their bodies coated and enough nicotine is withheld in the dust to afford wonderful repelling effects. Hence one application every four days during the active beetle season will give splendid protection.

Our observations, thus far, have shown that most growers using their first nicotine dust apply too small a quantity per acre. Six to ten pounds per acre should be used at each application until the runners have formed. More is required afterwards.

Enough dust should be thrown from the duster to completely envelope each

plant and with enough force to cover the body of every insect above ground.

Two Strokes Better Than One.

Many of the beetles hide and feed beneath clods and around the stalk of the plant. The first stroke of a bellows duster will kill all above ground and a second stroke will catch the insects previously hidden. In this manner a grower may obtain nearly one hundred per cent kill of all beetles present about the hill. All dusters have quantity adjustments. It is preferable to adjust to a small quantity per stroke and make two strokes per hill than to apply large quantity at a single stroke, because of the tendency of the beetles to hide.

Funnel Attachment for Wind and Rain.

If it is very windy or a long period of rain allows the beetles to ruin the plants, a large funnel may be attached to the end of the outlet tube. With this attachment one can apply the dope regardless of ordinary weather conditions.

However, except during very high winds, rain or, when using less than a three per cent (actual) strength, twice the acreage may be dusted per hour, using a good bellows or crank type duster without the cone attachment.

Warm the Dust.

Except during the extreme heat of midsummer it is of great advantage to place the can of dust in the sun for a few hours before filling the duster. For early morning or sunless days, the can may be placed beside the kitchen stove to obtain the same effect.

The extension division has compiled a list of dealers handling nicotine dusts and hand operated dusters in many of the counties of Michigan. Such a list of local dealers can be obtained from the county agents or vocational agricultural teachers, or from the Director of Extension, East Lansing, Michigan.



When a Good Duster is Filled with a Three or Four Per Cent Nicotine Dust, Pickle, Melon and Squash Growers Are Always Due for a Treat. This Group is Busy Counting the Thirty-eight Beetles that Died Under the Spell of a Duster Using the Two Shots Per Hill Method at 10 Lbs. Per Acre.

Hogs Seesaw With Corn

The Market Man Peeks through Long-range Glass to get an Angle on 1925 Hog Prices

BASED on the evidence now at hand, it is logical to look for a high average of corn prices during the coming year and for a considerable delay before the ratio between prices of corn and hogs again becomes favorable for the average hog feeder.

How long this delay will be depends on whether the present advance in corn prices is fully maintained and on the character of the weather during the next three months, while the ultimate size of the 1924 crop is being determined. The weather might change very decidedly for the better or there may be a continuation of more or less unfavorable conditions all summer.

As long as hog prices remain at an unprofitable level compared with corn the tendency will be to curtail production and rush hogs to market. This means relatively large receipts for the summer unless the outlook for corn

changes radically. It is doubtful, however, if the number of hogs on farms will provide as large a movement to market as in the summer of 1923. The seasonal tendency for the supply to be smaller in the summer than at any other time of the year is quite certain to manifest itself. This means that a brief advance in price later on can be counted upon.

Much Higher Hog Prices in 1925.

If there is no improvement in the corn crop the tendency will probably be to market spring pigs early and at light weights which would mean heavy receipts, especially of the undesirable grades, during the early fall months. All the while, however, the reduction in the number of hogs on farms will be paving the way for much higher prices in 1925. The number of hogs still back in preparation for sale has very much more to do with the market outlook than the number arriving currently.

The department of agriculture estimates the 1924 spring pig crop at eight million fewer than last year. Most of this reduction will show in the number of hogs slaughtered under federal inspection, owing to the fact that farm slaughter and other local slaughter is relatively constant from year to year. In 1923, over 53,000,000 head passed under the eyes of the federal inspectors so that a reduction of 8,000,000 head will be distinctly notable.

In addition, the advance in corn and the recent decline in hog prices have come at a time when they will have a decisive tendency to reduce the size of the fall pig crop. Furthermore, the selling of hogs at lighter weights than was the practice while hogs were high and corn was cheap also will keep down the total poundage of hog product to be consumed or exported.

These conditions point to smaller receipts this fall than a year previous, even though growers do rush to mar-

ket early to avoid feeding high-priced corn.

So far as the prospective demand for hog products is concerned, there is reason to believe that a modest trade revival is not far away, and that industrial employment conditions are likely to improve rather than to become much more favorable than they are now. In consequence, domestic consumption of hog products should at least maintain the present rate for many months to come. Furthermore, prices of hog meats and lard at retail are so cheap compared with most items in the cost of living and with other meats that they would seem to be attractive to consumers who are anxious to economize.

Foreign Markets Less Satisfactory.

Foreign market prospects appear much less favorable than the domestic. It is probable that most of the hogs accumulated in Germany last

(Continued on page 53).

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VOLUME CLXII

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DETROIT, JULY 19, 1924

CURRENT COMMENT

Davis
And
Bryan

SOMEONE has said that all things have an end. So it seems, for after a hundred and two ballots the democratic national convention succeeded in finding a man upon whom the necessary majority of the delegates could agree. As a result, John W. Davis, of West Virginia, was made the standard bearer of the party for the coming national campaign. The delegates then proceeded to select Governor Charles W. Bryan, of Nebraska, brother of William Jennings Bryan, as their vice-presidential nominee.

Then men are sane, intelligent, normal, capable, experienced and loyal; and with the same type of Americans heading the other major party, citizens of America may well congratulate themselves upon the high type of men from whom they will select a chief executive and vice-president at the coming November election.

A Real
American
Boy

HEARTFELT expressions of sympathy have gone out from hundreds of thousands of American homes to the sorrowing father and heart-broken mother of Calvin Coolidge, Jr., the sixteen-year-old son of President and Mrs. Coolidge, whose untimely death last week shocked the nation.

Calvin Jr., was a real American boy, manly, true-hearted, ambitious, an outstanding student, an active lover of outdoor sport, and withal possessed with a quiet determination to go out and win his way in the world by his own individual efforts.

A paragraph from the brief span of years of Calvin's life tells the type of lad he was. When his father became president of the United States, young Calvin was working as a hired man on a farm in Connecticut at \$3.50 per day. He was not disturbed by the sudden elevation of his father to the highest office within the gift of the American people, but continued at his manual task to the end of the season. This summer he had planned to go back to Vermont and to assist his grandfather in harvesting the hay crop, then later to join his brother in a citizen's training camp in Massachusetts.

The qualities exhibited here are the materials out of which are made the highest citizens, the truest men, the greatest leaders. We deplore the fact that in this instance the reaper came too early to allow for the full fruition

of those qualities. Yet, we by no means feel that these sixteen years were in vain; the example and inspiration of his short life to all our American youth will bring forth fruit a hundred and a thousand fold.

The Need
Eternal
Vigilance

THE farmer must be ever on the alert. He is a man of all work, a sort of jack of all trades. His business as it must generally be conducted these modern days has various ramifications. No longer can the man who is inclined to rest that part of his anatomy which lies above his ears, expect to farm with success. Brawn has ceased to be the only requirement.

The man who would make the farm a successful concern these days should be a first-class mechanic. Few occupations demand familiarity with a greater variety of machinery than modern diversified farming. More and more of the physical operations of the farm are being done by machinery, and more will be done as time goes on. But we may go all up and down the long line of physical tasks that are apparent to the casual observer, from the turning of the sod in early spring to the shucking of the last ear of corn in the late fall, and still the half has not been told.

Soils are no longer virgin, most of them have reached the point where they need intelligent care and treatment. In order to keep the soil rich and productive we can no longer consider it merely as a "clod to tread upon," but we must learn to know it as a living thing, for such it is, and teeming with bacterial life. We must also grow a variety of crops, and not one of them but has a life history of its own which has to do with plant food requirements, insect pests, and

diseases. These may seem trivial things, but the success or failure of any plant or tree or flower is often entirely dependent upon a knowledge of these things and of the methods of their control. And when we come to live stock there is a whole new list of things to learn. Balanced rations, parasites, internal and external diseases and how to prevent and treat them.

There is a great wide range of things that are full of absorbing interest for him who aspires to do things in the country. To know and do the right thing at the right time and to know how and when to prevent or repair the wrong thing is the price of success. There is no time to loaf or sleep on the job. It is this job that calls insistently for eternal vigilance.

Pure
Bred
Culls

WE have too many of them. We think because they have a pedigree they must be better and, therefore, worth more. But that is not always true. A pedigree is simply a record or history of ancestry. It does not necessarily insure perfection. If the culls that appear in all families from time to time were allowed to go on and perpetuate that pedigree, we could eventually have a line of pure-bred culls, for inferior qualities are as sure to be transmitted as the good ones are.

A leading authority on live stock matters one time said, "It is not so much the pedigree sire, as the quality sire we need." Quality is the thing. There are high-grade animals in plenty that are superior to many pure-breds. It speaks well for the pure-bred sire that he has been able to produce such excellence in his graded offspring, but it was not an inferior pure-bred sire that did it. Pure-bred animals that have not real excellence to accom-

pany the pedigrees they claim, should be promptly consigned to the block.

Perhaps, we in Michigan have never known a time when quality in the live stock we raise is so important as now. In keeping with all other features of the farm the live stock department must be placed upon a plane of high efficiency if we would make a go of it. This means improved blood to a high degree, and as we add it to our herds and flocks we should first insist on quality.

No Time
For
Work

IT is said that figures will not lie, but liars will figure. Here is an ingenious set of figures that would indicate that,

although workers are supposed to labor, laborers have no time for work. It has been prepared by a correspondent of the Boston Herald. The 365 days of the year are divided as follows: Eight hours a day, or 122 days, are given to sleep; eight hours a day, or another 122 days, to rest and recreation; Sundays take fifty-two days; Saturday afternoons off, twenty-six days; allowance for lunches, sickness and other things, twenty-eight days; two weeks vacation, fourteen days. This leaves one day on which, since it is Labor Day, no one works.

Campin'

SOME of the wise men says we was oncet wilder than we are now, and fer proof they says 'cause we like campin' shows we get relapses and like ta get wild again like our great-grand-dads used to be.

Well, we got through hayin', which is one of the wild things a civilized farmer does. Now, hayin' always makes me feel wild, so I says ta Sophie, "Let's go campin'."

She says, "There's too much to do, but you ain't done much o' anything fer a long time so you need a rest."

So we pack up our four-wheeled tin can and goes up north in one of our state parks where you kin be wild, so long as you act courteous.

Well, we put up our tent, which was our home fer a few days, and fixes our bed on the ground just so we kin be different than we usually are. We had sizzlin' bacon, etc., over a regular bonfire in one of the up-to-date old-time cement fireplaces. Then we set the rest o' the evenin' sayin', "This is the life."

That night it started ta rain and I had ta get up and get a shower bath to keep other things from gettin' wet.

Well, that was one of them there dry rains what we like when we need it, but what is a nuisance when we don't need it. We didn't need it this time.

All we did was ta set in our civilized tin can fer three days, tryin' to sing, "It ain't gonna ta rain no more." But the weather man didn't believe us, so we just eat, slept and set, tryin' to enjoy our wild, wet life.

I was sayin' fer three days it was goin' to clear up soon, and just ta show I'm a good weather prophet, it did clear up on the fourth day. On that day we hung everything up to dry, includin' ourselves, and on the fifth mornin' we was dry enuf, so we packed up and went home.

Now, if you wanta enjoy the wild life, like we did, just put your old car in the back yard and set in it fer three days while it's rainin'. It's good 'cause you get so tired doin' nothin' you won't want to do it again fer a while. Sophie says the trip had a good effect on me.

HY SYCKLE.

The next problem is to find something to take the place of corn.

To Michigan Bean Growers:

WE, the undersigned committee representing both growers and elevator men, are unanimously and enthusiastically in favor of an advertising campaign in the interests of Michigan Choice Hand-picked navy beans.

We raised last year in Michigan two-fifths of all the beans raised in this country. We raised two-thirds of all navy beans. The government forecast for the 1924 crop credits Michigan with practically fifty per cent of this year's total prospective bean crop. We contend that an advertising campaign of the character proposed is highly desirable, if not absolutely essential, if this enormous crop which is in prospect is to be marketed at increased and satisfactory prices. We contend that the farmers are willing to contribute for all the beans marketed by them on condition that their elevator contribute a like amount for the purpose of advertising Michigan choice hand-picked beans. Our conclusion is challenged and doubted by some large elevator interests and we must present proof of favorable sentiment among the farmers before we can secure the one hundred per cent cooperation of the elevator interests. Please fill in the attached questionnaire and mail to the editor of this paper immediately. Votes to be effective must be in by August 10.

This is a proposition of vital interest to every Michigan bean grower, and we shall expect an expression which in no uncertain terms shall represent the sentiment of a material percentage of the bean growers of Michigan.

(Signed by the committee), Gus Marotzke, SeDewaing, (chairman); A. B. Cook, Owosso, (secretary); H. E. Chatterton, of Mt. Pleasant; J. E. Malone, Lansing; C. S. Benton, Lansing.

QUESTIONNAIRE ON BEAN ADVERTISING CAMPAIGN.

Do you favor an extensive bean advertising campaign?

Yes..... No.....

Will you contribute one cent per hundredweight from the beans you sell, for promoting and advertising the Michigan Choice Hand-picked pea bean, providing your elevator man contributes an equal amount, and provided further that this movement shall be generally supported by the growers and elevator men of the state?

Yes..... No.....

Name

Address

Elevator ordinarily patronized

He Knows The Demand

Then the Good Market Man Seeks to Guide Production so this Demand is Efficiently Met—J. T. Horner

IN a recent issue of the *Sunsweet Standard*, the official magazine of the prune and apricot growers of California, there was the following statement: "If the association is to deal with marketing problems successfully it must know what conditions are." Special reference is made to the importance of watching crop conditions during the present crop year. Unless the management knows about crop conditions it will not be in a position to follow the right kind of a sales policy.

This is an organization of fruit growers which has learned that there is something to the marketing problem besides just getting an organization together and fulfilling some of the functions usually performed by private dealers. It knows that if marketing is to be properly conducted it must be based upon a knowledge of what the market wants, how much it wants, and in what condition it is wanted. No sales organization in the world can be successful in selling things people don't want. The poor quality produce can not be sold at a profit by the best sales organization in existence. Quality is what the consumer wants and the wise seller is going to provide the desired quality.

The conditions of the market have an influence on the way prunes and apricots sell. This is likewise true of the potato, milk, apple, wheat, or hog market. The conditions of supply, the purchasing power of consumers, quality of the product, and price of substitute goods all have an influence on price.

These western fruit growers have learned that conditions of a growing crop, the movement to market, quantity in storage, rate of consumption, export market conditions, quality and other basic factors have an influence on the success of the sales program for the year. Therefore, they are

constantly on the lookout for information which will assist them to better analyze conditions and formulate a sales policy which will bring about the best returns for their members.

Such cooperation is of extreme value. No person can sell in a market on an equitable basis unless he knows about market conditions the same as the purchaser does. The individual producer who is far from market and whose time is taken up with production problems cannot get this information. It is too big a task for him. The fruit growers of the Pacific Coast have joined together into an association and hired experts to gather this basic market data for them so they might go into the market well equipped to bargain effectively for a price which conditions justify.

Knowledge of market conditions is basic to all market improvement. Unless the farmer, either individually or collectively, learns about what the market wants and about the conditions of supply he will never be able to sell successfully. This information can be gathered and interpreted effectively, for the mass of the farmers, only through collective action.

Michigan farmers should study the practices of organizations in other sections of the country. While all the practices of California associations may not be adaptable to conditions in this state, knowledge of the general

method of attacking their problems will be of vast benefit to our farmers. The successful organizations, whether they be in California or other parts of the country, have followed the general policy of finding out about the conditions in the market. After market demands and conditions are known the problem is one of satisfying those demands in the most efficient and effective manner.

The consumer, whose money makes it possible for production to continue, is the final judge as to what a product must be like. The successful seller is the one who learns how to gauge consumer demand and forgets all about his own personal preferences. The farmer must, if he is going to be a successful marketer of his produce, forget all about his own personal preferences and make every effort to satisfy the demands of the man who is eventually going to consume the produce.

Last winter I heard farmers say that the small hollow-heart in Michigan potatoes did not hurt them at all, and that they were just as good to eat as any other potato. Granting this to be true, nevertheless, it is also true that the consumer in the city market place prefers potatoes without the hollow-heart. This preference for sound potatoes made Michigan hollow-hearted

ones sell for less than sound potatoes from other sections. There may be no reason for the preferences which consumers have, however, if we are to be successful in satisfying demands we must cater to these preferences as best we can.

There are some great organizations in Michigan which can secure market information and enable them to sell the produce of their members better than the individual possibly could. The Milk Producers' Association officers know just as much about the conditions in the

Detroit and other large city markets as the milk distributors do, and can bargain with them on an equality. The very favorable conditions which have prevailed in the Detroit milk market during the past period of depression and uncertainty in most lines of industry have been due to the knowledge of market conditions which the officers of this association had. Knowledge of conditions made effective and equitable bargaining possible.

The fruit and potato growers' associations are in a similar position to bring information to their members and thereby make it possible for production to be conducted so as to be in harmony with demand. The live stock shipping associations have been the means whereby farmers have learned that good live stock really brought more on the central markets than poor live stock. These associations have taught farmers what qualities were desirable and caused production to be directed so that the demands of the market might be met.

Portland farmers expect a good cucumber crop.

Herds averaging above 7,000 pounds of milk annually produced milk cheaper by \$1.19 per hundredweight than did herds averaging less than 5,000 pounds.

To Improve Markets

THE basis of market improvement is first of all, a knowledge of the demands of the market and then guiding production so these demands can be met effectively and as cheaply as possible. Organizations of farmers are going to become more and more effective as they learn that these are the main functions which they are to perform. The more market information farmers have the better position they are in to make agriculture profitable.



Abundant lather 1000
Quick action . . 1000
Durable lather . . 695
Strong bubbles . . 661
No irritation . . 972

1000 Men Voted on what the millions most wanted in the ideal Shaving Cream

By V. K. CASSADY, Chief Chemist

GENTLEMEN:

When makers want to know what the millions desire they ask 1,000 average people. Done in the right way—without suggestion—it gives an infallible viewpoint.

That's what we did when we decided to offer men a Shaving Cream with a palm-and-olive oil content. We asked what else they wanted. Then we worked to excel in each.

A 60-year development

Palmolive Shaving Cream is really a 60-year creation. It is a final result of 60 years of soap study. Behind it lies that skill which made us leaders in fine soaps. Which created, for instance, Palmolive Soap, the leading toilet soap of the world.

We made and discarded 130 formulas before we met our ideals in a Shaving Cream. But we thus developed a Shaving Cream which has changed the whole conception of what Shaving Cream should do.

Learn why men adopt it

Palmolive Shaving Cream is a sensation. Few products ever won so many folks so quickly. You must have heard about it. Men everywhere are telling its delights.

We urge you to find them out. It excels in all the five ways men desire. Its new results will amaze you.

Ask for this Ten-Shave Test. Do this to please yourself and us. Please do it now. Cut out the coupon as a reminder.

Five new attainments

- 1—It multiplies itself in lather 250 times.
- 2—It softens the beard in one minute.
- 3—It maintains its creamy fullness for ten minutes on the face.
- 4—Its extra-strong bubbles act like wedges to support the hairs for cutting.
- 5—The palm-and-olive oil content makes the Cream lotion-like in its effect.

To add the final touch to shaving luxury, we have created Palmolive After Shaving Talc—especially for men. Doesn't show. Leaves the skin smooth and fresh, and gives that well-groomed look. Try the sample we are sending free with the tube of Shaving Cream. There are new delights here for every man who shaves. Please let us prove them to you. Clip coupon now.

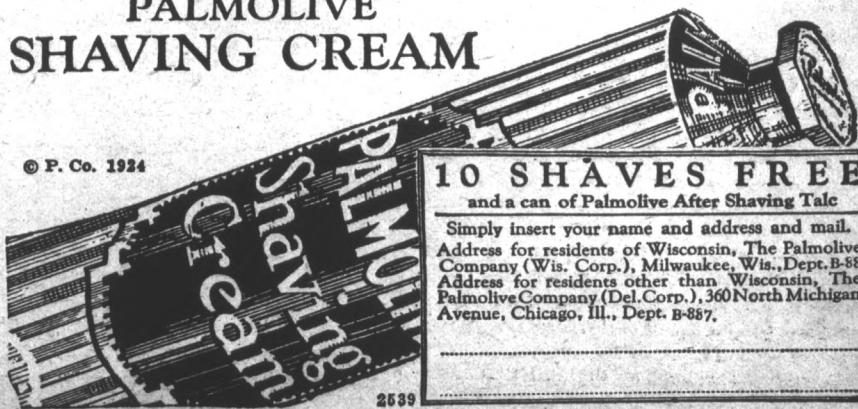
I Used a Mug Myself

Before I found this new cream, I too stuck to the old-time mug, unsanitary and old fashioned. Now I offer you a better way. Do me the favor of a trial—free. —PROFESSOR CASSADY

THE PALMOLIVE COMPANY (Del. Corp.), 360 N. Michigan Ave., Chicago, Ill.

PALMOLIVE SHAVING CREAM

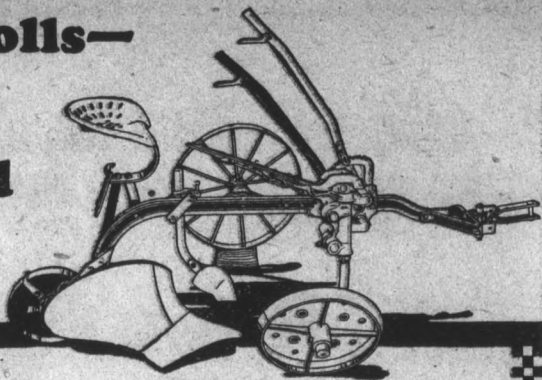
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10 SHAVES FREE
and a can of Palmolive After Shaving Talc

Simply insert your name and address and mail. Address for residents of Wisconsin, The Palmolive Company (Wis. Corp.), Milwaukee, Wis., Dept. B-887. Address for residents other than Wisconsin, The Palmolive Company (Del. Corp.), 360 North Michigan Avenue, Chicago, Ill., Dept. B-887.

Landside Rolls— Plow Stays Down— Makes Good Seed Beds



Hard work of plowing is eliminated for you as well as the horses, and you get a better seed bed when you use the light-running, all-wheel-carried, simple

JOHN DEERE SYRACUSE NO. 210 SULKY PLOW

The rolling landside makes the No. 210 practically frictionless. All of the weight is rolled on oiled bearings. No dragging friction on furrow wall or furrow bottom.

The No. 210 can be used with slat or solid moldboards, chilled or steel. This provision for the interchange of equipment makes this plow adaptable for work in any kind of soil.

Bottom runs true and level all the time even when turning square corners. The front furrow wheel casters on the turn and guides the

plow perfectly. Lever lock holds plow in line on the straight-away. Just before reaching the end of the field the lever latch is released. This allows the bottom to swivel freely on the turn. As the plow again settles to work in the straight furrow the latch seeks its proper position and locks. Driver's hands are free to manage team except when releasing latch.

Frameless construction—simple and strong. Two-axle support for front furrow wheel prevents binding or cramping

Don't fail to see this plow the next time you are in town. Write today for **FREE BOOKLET** on the No. 210. Address John Deere, Moline, Ill., and ask for Booklet EN 422

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OUR EXPERTS WILL QUICKLY ERECT THEM

PERMANENCE

"HOOSIER SILOS" are proof against wind, fire, frost and decay, reinforced with every course of tile with galvanized steel cable, equipped with continuous doors with double sealing clamp. Doors set flush with inside wall allows even settling of ensilage. HOOSIER silos also in wood, same unexcelled value. Territory open for good salesmen. Get our prices before buying. HOOSIER BLDG. TILE & SILO COMPANY, Dept. M-99, Albany, Indiana

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HOFFSTRA

Kills 'em

also kills—

Ants, roaches, fleas, chicken mites and lice, mosquitoes, bed-bugs, potato bugs and worms. Refill 15c loaded metal guns from packages. 30c, 60c and \$1.20; at druggists and grocers.

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Quick!

Gombault's Caustic Balsam is both dependable and quick in its results. Super-sedes firing and cautery. Unequalled for most horse ailments. Doesn't scar or discolor the hair. Directions with every bottle.

\$1.50 per bottle at druggists or direct upon receipt of price. Good for human use, too. The Lawrence-Williams Co., Cleveland, Ohio.

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Caustic
BALSAM

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The Biggest Value in
Ensilage Cutters

THOUSANDS of farmers agree that the Papec is the biggest value in ensilage cutters—simple, rugged, long-lived. Fills the highest silo without plugging the pipe. Light of draft; costs less to operate. Every part is easy to get at.

The Papec is made in four sizes: R-10; N-13; L-16 and K-19. A gasoline engine, developing 3 h.p. or more, will operate the R-10 size. Any tractor can be used with the medium sizes. For heavy tractors use a K-19 Papec—capacity practically unlimited.

Write for free catalog and U. S. Gov't Bulletin "Making and Feeding of Silage." Every silo owner should read them. Mention size of your silo.

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Throws And Blows Saves One Man

Your dollars buy more in the Papec

OUR SERVICE DEPARTMENT

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

WIFE NOT LIABLE FOR HUSBAND'S DEBTS.

Just how far is a woman liable for her husband's debts? And how can she protect herself? They just own personal property?—S. P.

A married woman is not liable for any of her husband's debts, and her contracts to pay them are void.—Rood.

RECORDING LEASE.

B. rents a farm from A. B. and A. signed contract made out by A. Is it legal and binding without a notary's seal?—C. L.

Leases do not need to be recorded, since the lessee's possession is notice to the world of his rights. Acknowledgement is necessary only for the purpose of recording.—Rood.

RIGHT TO SELL SECURITY.

A. owes B. a sum of money. B. takes a property note of two years. B. has never owned the property. A. is unable to pay the note when due. Can B. sell property to cover note?—E. W.

No person can bind property beyond their interest in it. Whenever any person gets better title than his seller had, it is by virtue of the fault of the property in some way.—Rood.

GUARDING PROPERTY OF INCOMPETENT.

Should an inmate of an insane hospital fall heir to property, what is the disposition of the state of Michigan toward the handling of such property? What procedure is necessary for the appointment of a guardian for a person confined in an insane hospital?—L. H.

Guardian is appointed on petition to the probate court of insane person's domicile. When administration of the estate of the deceased is complete the share of the insane person is given to the guardian under bond for the insane person.—Rood.

HARVESTING SOY-BEANS.

I have three acres of San soybeans which are at the present time a wonderful sight. I wish to harvest this crop for the seed. Would it be advisable to cut them with the grain binder? Do you think they would cure out under the band?—Reader.

Soy-beans should be harvested for seed when a majority of the pods have reached maturity, which is usually after the plant has dropped most of its leaves. The grain binder is very satisfactory for harvesting and the plants should be bound in small bundles and cured in open shocks. Should the seed become a little too mature and shatter badly it will be best to cut when the pods are toughened by dew.—C. R. M.

WANTS PERMANENT PASTURE.

I have a ten-acre field of about half sand and half black loam, medium heavy, low. Some is wet while the other half is higher. Now, would like to manure sand land heavily and seed to a permanent pasture. What seeds would you advise mixing and how many pounds of each? You can buy mixtures but didn't want red clover nor alfalfa, as it would be throwing seed away. Alsike, orchard grass, timothy, and what else would you suggest? Would you advise seeding alone or in a thin seeding of buckwheat, and how much buckwheat to the acre?—W. D.

In case you desire to use buckwheat as a nurse crop, would recommend seeding not more than two or three pecks per acre. Frequently excellent seedings are secured in buckwheat; as a rule, however, the crop is sown too late for the grasses and clovers to do well, also it is too late in the season before buckwheat is removed for the clovers and grasses to make

sufficient growth to carry them through the winter.

Would suggest the following mixture:

Kentucky blue grass, four pounds; orchard grass, five pounds; timothy, three pounds; red-top, two pounds; alsike clover, three pounds.

If the soil is not very acid, would advise the use of three or four pounds of sweet clover.—C. R. Megee, Associate Professor of Farm Crops.

FAILS TO COMPLETE ROAD ON TIME.

I am highway commissioner of my township. I was authorized by the township board to spend \$500 on a piece of road. A certain party was much interested in that certain piece of road. They offered to do so much more if I gave them the job to make a good road. I entered into a contract with them to have the road completed by April 1, 1924. They haven't finished the road yet—about two-thirds finished. I was re-elected this year. Can they collect that money when they finish the road or not? Would the law force me to pay it now?—F. F.

Failure of the contractor to complete the work within the appointed time would only be cause for recovery of such damages as could be proved to result from the delay in the absence of a provision in the contract liquidating the damages, or provision for forfeiture of the contract if the work was not finished within the appointed time.—Rood.

IS STILL LIABLE.

I bought in 1919, for \$100 cash, a share of a farmers' cooperative association. This association declared bankrupt with a considerable debt. I was single at the time I bought the share, but got married in 1920, and made a joint deed to my farm property. Now I would like to know if our joint property is liable to execution on judgment against the shareholders?—Reader.

Conveyances other than for value to innocent purchasers are no protection against obligations incurred before the conveyance was made.—Rood.

ADVERTISING FOUND GOODS.

A young pup came to us yesterday. How long should we advertise it in the paper before we can keep the pup if no one calls for it?—Mrs. M.

Compiled Laws 1915 Sec. 7450 requires all finders of stray animals of value of \$10 or more to advertise, and the accompanying provisions eventually require sale and turning in the money to the town clerk for the benefit of the owner.—Rood.

WORKING LAWS FOR GIRLS.

Montague is a summer resort town with many summer hotels, and a large number of girls are employed. Have they a right to work the girls from fourteen to sixteen hours a day? They claim they have permits to do so.—W. B.

Compiled Laws 1915 Sec. 5587 provides:

"That in all factories, workshops, salt-blocks, saw-mills, logging or lumber camps, booms or drives, mines or other places used for mechanical manufacturing, or other purposes within the state of Michigan, where men or women are employed, ten hours per day shall constitute a legal day's work, and any proprietor, stockholder, manager, clerk, foreman, or other employers of labor who shall require any person or persons in their employ to perform more than ten hours per day, shall be compelled to pay such employees for all overtime or extra hours at the regular per diem rate, unless there be an agreement to the contrary."—Rood.



RURAL NEWS DIGESTED.

The people of Chicago are strong for fruit, eating fully as much as do New York's six millions.

Benton Harbor district reports that the cherry pick belt will be short this year in that section of the fruit belt.

The backwardness of the season has resulted in a four per cent increase in the potato acreage of New York state.

Much favorable sentiment is shown among growers for state inspection of farm produce. The results from potato inspection causes growers to hope that the work will be extended to fruit.

Onkama fruit growers have signed up, according to present indications, over 50,000 cases of fruit to be marketed this year through their cooperative association.

Producers' associations, as well as private shippers, are making a constantly larger use of boat facilities for carrying fruit across Lake Michigan to Chicago and Milwaukee.

The date of the second annual potato show for northern Michigan is set for November 7-9. Financial resources will be considerably above that of a year ago, according to latest advices. The show is again to be held at Gaylord.

Wayside stands have once more come into prominence with increased farm supplies and the development of tourist traffic. It is observed that much general improvement is being made in the type and tidiness of these direct selling marts.

Failure of government extension men to provide farmers with needed advice on the successful production of turkeys, is held to be partly responsible for the falling off in the raising of this Thanksgiving luxury. The turkey population of Michigan has decreased with that of other states.

Poisoned mash is being used by the farmers on the west side of the state to break down attacks of army worms. The worms are abundant in some localities, but the generous spreading of the mash is getting results. In some sections town boards are furnishing free poison to the farmers.

The state-wide potato tour conducted the past two years for the benefit of growers of certified seed, will not be held this season, but in its place county tours are being planned. Already plans are in the making for these schools in Emmet, Wexford, Lapeer and Oakland counties.

Some bean fields in the west central part of the state and a few farther east have suffered to some degree from the work of the bean maggot. Professor Pettit, of the M. A. C., advises that farmers fit ground early, plant seed shallow and plow alfalfa ground, that is to be planted to beans, in the fall.

Cherry picking in the Traverse district has become an annual event of note in the lives of girls from Grand Rapids, Muskegon, Cadillac and other western Michigan cities. Each year scores of girls go north under the guidance of chaperons, pick cherries to pay their way, enjoy social events and lectures, and have an outing that affords every possible opportunity for recuperation. Prizes are offered to those showing the greatest efficiency.

Do You Know About the Power Take-Off?

The Greatest Improvement in Ten Years Is a Feature of the McCORMICK-DEERING Tractor

THE Power Take-Off helps you use the McCormick-Deering Tractor not only to pull your machines but to run the mechanism of the machines by power conveyed direct from the tractor through a revolving shaft.

This feature opens up great new possibilities for more efficient and bigger-scale operation behind McCormick-Deering Tractors. It does away with such well-known troubles as slipping bull-wheels, clogging and stalling where the ground-gripping action of the machine is not sufficient to run it.

The corn picker is one of the machines that demonstrates the value and efficiency of the Power Take-Off. Many corn fields will see its use this season. Grain binders [the new McCormick-

Deering 10-ft. tractor binder which cuts 30 to 40 acres in 12 hours], rice binders, spray pumps, etc., may all be run under difficult conditions, when the tractor power runs them as well as pulls them.

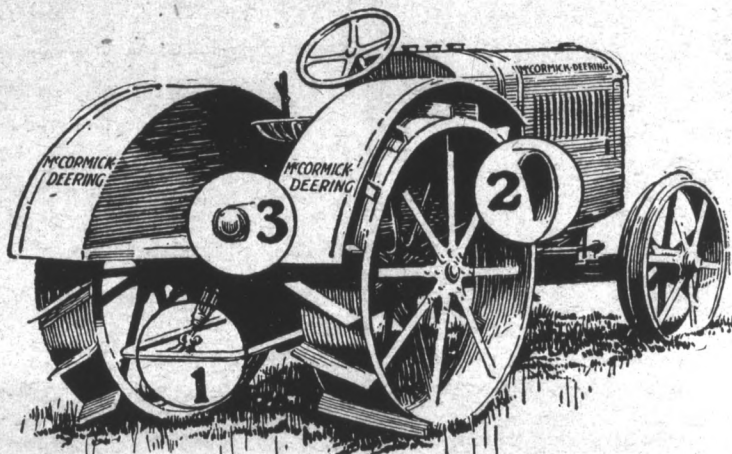
McCormick-Deering 10-20 and 15-30 are especially designed so that this useful equipment can be added. You may not need it right away but it is ready when you want it in years to come. Make sure the tractor you buy is made for the power take-off and you will find it has all these things, too—crankshaft and crankshaft ball bearings guaranteed for life, removable cylinders, unit main frame, ball and roller bearings at 28 points, throttle governor, belt pulley, platform, fenders and brake. Write for a catalog or see the dealer.

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The Three Sources of McCormick-Deering Power—

1. The Drawbar
2. The Belt Pulley
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\$985 Improved New Model
Only **DOWN**

1 1/2 H-P PULLS OVER 2 H-P
(Burns Kerosene or Gasoline)
You can get any size OTTAWA from my factory at lower prices and on easy monthly payments. Earn its cost as you use it.

NO INTEREST TO PAY 30 days Free Trial on your farm. Thousands in use today. Easy engine to start. Size 1 1/2 H-P to 22 H-P. Write for new FREE Book: "How to Know Better Engines." Send name on card today.

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GOLD CORN HARVESTER Worth its weight in gold to every farmer raising corn, cane and kafir in rows. Only \$25 with bundle tying attachment. Testimonials from pleased customers in every state. FREE catalog showing pictures of Harvester. **PROCESS MFG. CORP., SALINA, KAN.**

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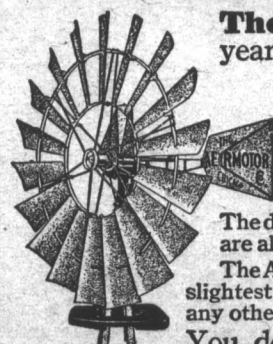
will reduce inflamed, swollen Joints, Sprains, Bruises, Soft Bunches; Heals Boils, Poll Evil, Quittor, Fistula and infected sores quickly as it is a positive antiseptic and germicide. Pleasant to use; does not blister or remove the hair, and you can work the horse.

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ABSORBINE, JR., the antiseptic liniment for mankind, reduces Painful, Swollen Veins, Wens, Strains, Bruises; stops pain and inflammation. Price \$1.25 per bottle at dealers or delivered. Will tell you more if you write. Liberal Trial Bottle for 10c in stamps.

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The WINDMILL with a RECORD



The Auto-oiled Aermotor has behind it 9 years of wonderful success. It is not an experiment.

The Auto-oiled Aermotor is the Genuine Self-Oiling Windmill, with every moving part fully and constantly oiled.

Oil an Aermotor once a year and it is always oiled. It never makes a squeak.

The double gears run in oil in a tightly enclosed gear case. They are always flooded with oil and are protected from dust and sleet. The Auto-oiled Aermotor is so thoroughly oiled that it runs in the slightest breeze. It gives more service for the money invested than any other piece of machinery on the farm.

You do not have to experiment to get a windmill that will run a year with one oiling. The Auto-oiled Aermotor is a tried and perfected machine.

Our large factory and our superior equipment enable us to produce economically and accurately. Every purchaser of an Aermotor gets the benefit from quantity production. The Aermotor is made by a responsible company which has specialized in steel windmills for 36 years.

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COME TO VIRGINIA

Now is the time to buy a farm in Virginia. Prices are reasonable. You can grow fine crops of corn—all grain and grass crops and fruit growing. Live stock and dairying unexcelled. Virginia offers more advantages to the farmer than any other state—variety of soil, mild winters. Why farm where you can grow only two or three crops and be far away from good markets, when you can grow a variety of crops in Virginia and be near the great consuming markets. The healthiest climate in America. Write now for Hand Book, Maps, etc.

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Suppose You Could Get

**\$300 for every 20 months old
heifer or steer that you
could raise**

**\$200 for every 20 months old
hog that you could raise,**

**\$100 for every 20 months old
sheep that you could raise,**

you would be tickled to death at the opportunity,
wouldn't you?

Now—provided—your cost for feed did not exceed
\$35.00 per animal—your profit for your labor—knowl-
edge of production—and interest on capital invested
—would be

\$265 for each heifer or steer,

\$165 for each hog,

\$ 65 for each sheep

then there would be plenty of profit in farming,
wouldn't there? And you would get real wages for
your labor.

Now—here—is the parallel. A choice Silver Fox
Pelt will bring \$600 or more—but High Grade pelts
will bring from \$300 up—Fair Grade pelts will bring
\$200 or over, and very ordinary pelts will bring \$100
or more.

The Food Cost—for raising a Silver Fox to the
stage where its pelt is most desirable—about 20
months—will not exceed—\$35.00. It is safe to say
that you would get an average of at least \$200 per skin
(or pelt) provided, of course, that your start be made
with Breeding Stock of advanced registry in quality—
or the Pontiac Strain!

Now—here is our problem—the Pontiac Strain Or-
ganization—is in position to market thousands of Pon-
tiac Strain Silver Fox Pelts. Get this mental picture—
We've a barrel full of demand but only a thimble full
of supply!

Now—we are asking you to help us—meet at least
a portion of this demand—and you can depend upon it
that you will make plenty of money out of doing so.

Pontiac Strain Service and the Pontiac Plan gets
you started too—in a way which removes every de-
gree of risk. The Pontiac Plan leaves nothing to
chance—your co-operation with this organization will
insure your Success—from the Start!

Now—call your wife and family around you—re-
read to them what you have read—discuss it with a
view of betterment for all of you and then mail the
coupon below for the facts!

Detroit Silver Fox Farms
12-243 General Motors Bldg. Detroit, Mich.

■■■■■ FILL OUT—TEAR OUT—AND MAIL ■■■■■

Detroit Silver Fox Farms,
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Detroit, Michigan. M 5.

Gentlemen:

I would like to have the details about the Pontiac
Plan for Silver Fox Pelt Producers!

Name

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How Did You Get the Marl?

WHETHER a hand shovel, a power
scoop or a centrifugal pump is
selected for digging marl will depend
to some degree, at least, upon the
conditions to be met. You will ob-
serve this from the following letters.
Evidently progress is being made in
providing equipment for this purpose.
Demonstrations will be held by the
M. A. C. extension men during the
summer to show what has been work-
ed out by the college mechanics to
facilitate this work.

EASILY LOADED FROM THIS BANK.

I AM situated on a farm adjoining
the village of Ortonville, and have
a wonderful marl bed that is on a
side hill. It is about ten feet thick,
six or eight rods wide and twenty rods
long. This bed is covered with less
than a foot of muck and tests ninety-

HERE we are again at that
season of the year when we
wish to fence off a lot for the
stock to feed in till another field
is available for pasture. How do
you do it?

Tell us in a brief letter just
how you put up a satisfactory
portable fence. Mail your letter
to me, the Handy Man, Michigan
Farmer, Detroit, on or before
July 23. To each of the writers
of the five best letters we will
send one dollar.

three per cent. There is no difficulty
in loading, as you can drive in on one
side, load up with a shovel, as it cuts
like cheese, drive out on the other
side. I have just put thirty yards on
a five-acre sandy soil and am plowing
preparatory to sowing to alfalfa in
August.—Robert Wilders.

HOW WE GET MARL IN CALHOUN COUNTY.

IN 1914 we wanted to sow alfalfa on
our farm but did not want to haul
the necessary limestone four miles
from the nearest railroad siding. We
decided finally to mine enough marl
from a small lake on the farm to fill
our needs.

After trying several methods and
various combinations, we learned that
dredge men contend that a centrifugal
pump will move solids that can be
suspended in water, much cheaper
and better than any other way. So
we finally centered our efforts on a
centrifugal pump. During the season
we mined about 100 yards of marl, but
the pump was a failure because the
marl would not go into suspension fast
enough to make production profitable.

During the next five years we did
more or less experimenting and at the
end of that time hit upon the idea of
a mixing chamber containing cutting
blades to loosen the marl and feed it
into the suction pipe leading to the
pump. This thickened up the suspen-
sion and proved to be so positive in
its action that the pump was given a
profitable load.

In the fall of 1920 we put out our
first pile of marl—about 1,000 yards—
and invited the neighbors to use it at
\$1.00 per yard. In the late fall this
marl was covered over with clover
chaff and the farmers hauled from it
practically all winter. Only a few
inches of marl on top of the pile froze
and it was easily busted loose.

The outfit consists of a flat bottom
boat 10x16 feet, in which is located
the working head, a one-ton hoist and
a three-horse engine. The working

head controls and drives straight down
into the solid marl, a housing equipped
with an agitator that bores and mixes
the marl with water. This working
head will cut a cylinder of marl eight-
een inches in diameter to a depth of
fifteen feet. A round trip operation
can be made in about one and one-half
minutes.

On the shore a tractor is located
and hitched to a four-inch centrifugal
pump which raises and discharges the
marl suspension through a spiral pipe
line to the stock pile any distance
away, whether 100 feet or forty rods.

The capacity of this pump is rated
at twenty-seven yards of solids per
hour, carrying a ten per cent solution.
Though the best we have done was to
make a pile forty-five and one-half
rods from the marl bed, of 1,356 yards
in fourteen working days.

After the marl reaches the stock
pile, it quickly settles out and the wa-
ter runs off the top. Then large cracks
appear and within two weeks, if the
weather remains fair it is fit to haul.

One of the reasons why we like the
hydraulic method of mining marl is
that this method transports the marl
to any given point within a radius of
sixty rods or more if necessary to
reach hard ground on which to make
the pile.—J. E. Carnes.

USES THE SCOOP.

DURING the fall and winter of
1922 and 1923, my son and I
erected a machine for digging marl;
it is situated on the shore of a lake
nearby, and extends out into the lake;
this machine is fashioned to operate
with a scoop, and cost us to build, in-
cluding the scoop, \$420.08 in time and
money—that does not include the pow-
er plant, which is a tractor.

We dig this marl at odd spells dur-
ing the summer, whenever we have
the time, and haul it in the winter,
when weather conditions will permit.

This marl was dumped in small
piles, about a rod apart each way,
which we think is a decided improve-
ment over dumping a load in a place,
and spreading with the manure spread-
er, for the reason that it thaws out
quicker in the spring and we can get
it spread sooner. It does not take
much more energy to spread a fork
full of marl, than it takes to throw it
into a manure spreader; we use six-
tined forks to spread with, and two
men spread the field in four days.

This field was spread and dragged
both ways with spike-tooth harrow, by
the twentieth of April, and was work-
ed with disk or springtooth harrow
once a week till sown, and was sown
to alfalfa the sixteenth of June.—F.
O. Chenery.

MARL DEMONSTRATIONS.

THE following is the schedule of
the remaining dates of the marl
demonstrations being put on by exten-
sion men of the Farm Mechanics De-
partment of the Michigan Agricultural
College:

July 21—Near Eaton Rapids, Eaton
county.

July 23—Coldwater, Branch county.

July 25—Near Mendon, St. Joseph
county.

July 28—Cass county.

July 30—Millburg, Berrien county.

August 1—Near Alma, Van Bur-
en county.

August 4—Kalamazoo county, south-
east.

August 6—Kalamazoo county, north-
west.

August 8—Kalamazoo county, north-
west.

August 11—Mines Lake, Allegan
county.

August 13—Near Wayland, Allegan
county.

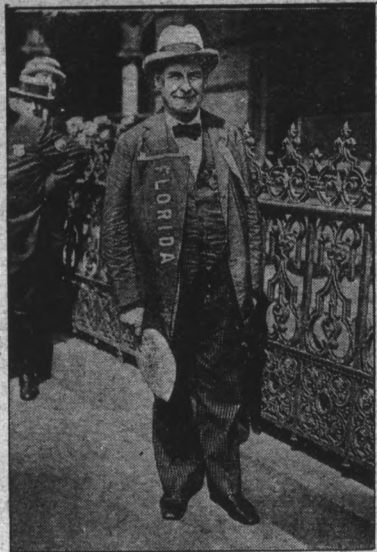
August 15—Kent county, south end.

August 18—Ottawa county.

August 20—Kent county, east.

August 22—Kent county, west.

WORLD EVENTS IN PICTURES



W. J. Bryan, of whom you have heard, is "among those present" at the democratic convention.



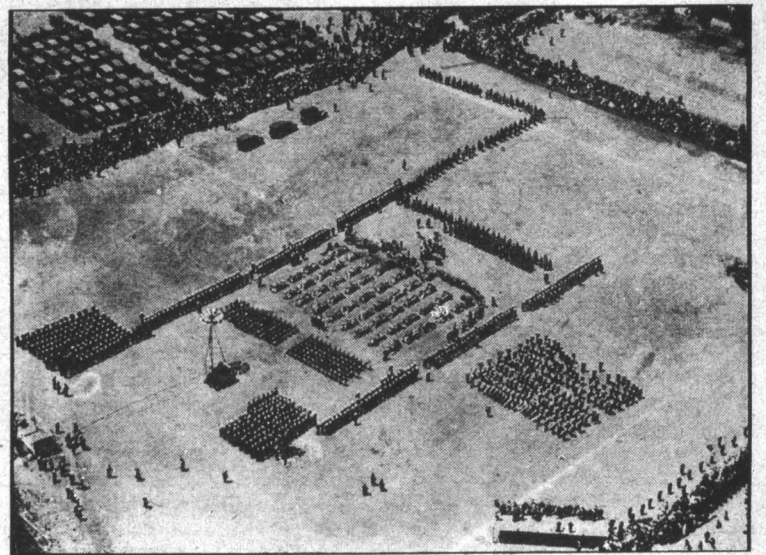
Twenty-five thousand New York City employees paraded for the delegates of the democratic convention, and incidentally to create an impression for Governor Al Smith.



Lieut. R. L. Maughan flew from New York to San Francisco in eighteen and one-half hours.



Madison Square Garden all dressed up for the democratic convention, and at night all lit up, so that the delegates can find their way to the place.



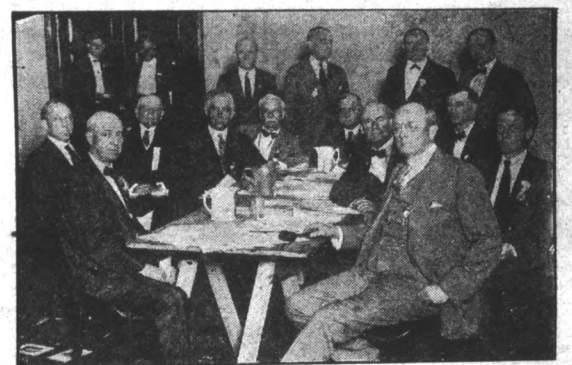
An airplane view of the funeral services of the victims of the U. S. S. Mississippi turret explosion. Forty-eight coffins are in the center of the square.



The Smith Brothers, of Spokane, Washington, eat at least a half dozen apples a day, some cooked, some raw.



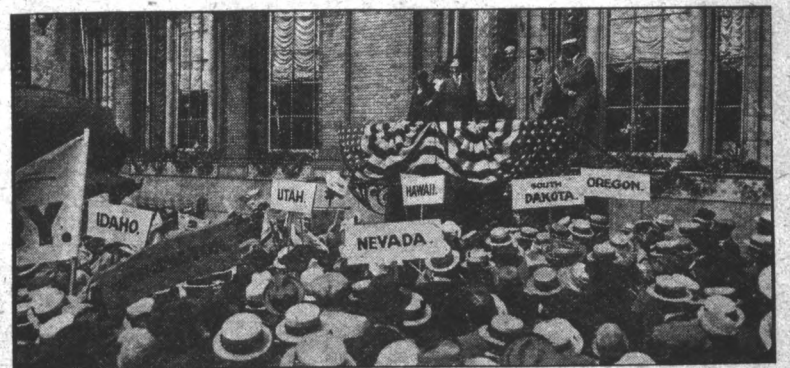
Thelma Parkinson, of New Jersey, the youngest and prettiest democratic delegate.



These men are responsible for the democratic platform. They look as if they had worked hard.



The United States Olympic Polo Four are practicing on French soil in preparation for the contests with the teams from other countries.



Wm. G. McAdoo, leading candidate, making his final pre-convention plea at the Vanderbilt Hotel, to delegates from all parts of the country.

IT happened I was down there in Carter county where the subterranean wonder known as Seven Echoes Cave is located, boarding with old Jed Measure at Seven Echoes Farm, when the Bishop's Pulpit in that part called the Gothic Cathedral, caved over on top of Jed and ended his mortal career in one-tenth of a second. That happened some time in the afternoon, and, when supper had been ready and waiting for half an hour, Abundant, his daughter, came to me where I was sitting in the rocking chair on the front porch, and asked me if I would go over to the cave and call Jed. I took an electric torch and went over to the cave and found Jed as dead as a door nail.

For about a month Jed had been talking about the crack that had appeared behind the Bishop's Pulpit, and threatening to get cement and timber and shore up the pulpit and cement it up solid, so I guessed that when he began work at it the whole thing had skidded down, including about twenty tons of the ceiling and wall. A piece of pink stalactite had hit him and he was no more.

That was bad. It left his daughter Abundant a fatherless orphan and destroyed the Bishop's Pulpit, one of the showiest features of Seven Echoes Cave, but it did something else that was, perhaps, worse. It ruined Seven Echoes Cave entirely.

I discovered this even before I knew Jed was quite dead. When I saw him on the floor of the cave motionless I tried to get him to show signs of life, and shouted "Jed! Jed!" at him, and no echo came back. Always, when a person stood there and even so much as whispered a word the echo would come back. If you said "Hello!" it would answer "Hello!" and "Hello!" until the last echo came back from far down the cave, a soft, gentle, "lo!" And now there was no echo; not a sign of one. Those tons of rock falling had changed the acoustics entirely; they had not only killed Jed, but they had killed the whole seven echoes. Abundant was not only an orphan but a pauper orphan, too.

Even while I was kneeling by poor old Jed there I made up my mind what I would do. I would stand by Abundant. I don't say it wasn't a pity, but I will say it was a good part love and liking. I was so sorry for the poor girl, singing away happily, maybe, in the kitchen up at the house while I was there on my knees by her dead father! My heart ached for her, and I guess nothing else would ever have given me nerve enough to think of offering to help her.

I'll say, straight out and frank, that if you took every man in every sort of show business and stood them in a row according to merit, I would be at the tail end. I'm about the worst drawing card of the lot, and I know it. My line is sleight-of-hand but I'm no good at it and never was. I admit that. When I took it up I thought I was going to be a second Houdini, but in a couple of years, after I had been just about hissed off the stage of the cheapest two-a-day houses, I saw how I stacked up and I listed my name for

engagements with clubs and for children's birthday parties. I got a mighty poor living out of it, and that was about all. No club ever had me back a second time, and I don't know that I blamed them much.

I was pretty well discouraged and down when I had the little accident over on Long Island and drew in my breath by mistake when I was doing my fire-eating act at a kids' party, and scorched my lungs bad. I was six weeks in the hospital and then the doctor said I needed some months in high air, with no worry and good food, or I might turn out to be a real lunger and be done for. That was when I thought of good old Jed Measure who had been a friend of my father and knew me when I was a kid. I got up nerve enough to write to him.

Old Jed was a fine old scout. He had been in the show business in one

to spend the rest of his life in it, as he did, poor fellow.

When Jed got my letter saying I was hard-up and sick and all, he did just what you might expect any old showman to do—he telegraphed me money to take me to Carter county and he said he wanted me to stay as long as I liked. He said there was work enough round the farm—easy work—to pay my board and lodging, and when I got off the train, all skin and bones and bent over like an old man, and holding my chest back against the cough with my hand, he made me feel like a long lost child.

For a week or two I couldn't do anything but sit in the rocker on the front porch and let Abundant bring me broth or a beaten-up egg and fix the rug round my knees, but in a week or two more I was able to move round and feed the chickens and pretend I



shape or another all his life, and many a time I had heard him tell father what he meant to do when he got along in years and saved up enough money to retire.

"Barras," he used to say to father, "there's just one business for a retired showman to retire to and spend his old age in ease and comfort, and that is the cave business."

It sounded reasonable, too. The cave business is good, steady business without any worry attached. If a man owns a nice, showy cave—not too big, but well located on some main automobile route—he only needs a few signs along the road and he is sure of a steady income. You don't have to carry fire insurance on a cave, or pay out a big pay roll. A man may have to wash down the stalagmites and stalactites once in a while to keep them shining, but that is about all his trouble and expense. The rest is clear profit.

Long before he retired Jed had pretty well selected the cave he meant to buy. He had looked at a couple of hundred caves in one part of the country and another and he thought the Carter county cave field was the best. There were eighteen or twenty caves in Carter county, and that advertised the county and made folks want to go there, and one of the neatest pieces of cave property in the lot was this Seven Echoes Cave. It was the only cave Jed knew that would echo back at you seven times, each echo distinct and clear. So, when he had saved up enough money Jed bought the cave and took Abundant down there and went into the cave business, meaning

was doing work. By the time a month was up I was able to work in the garden a little and attend to the cows and fences when Jed was busy taking parties through the cave. I guess I loved Abundant from the first minute I saw her, but what right had I to think of a girl like that when nobody knew how my lungs would turn out and I hadn't a cent and she was the daughter of Jed Measure, cave owner and all? I almost wept when I thought how sweet and gentle and lovely she was and I such a busted wreck with nothing to look forward to.

Jed was mighty proud of his cave. He had put in new steps where you go down from the Fairy Drawing-Room to the Giant's Cathedral, and again where you go us from the Giant's Cathedral to the Palace of the Gods, and he kept the cave as neat as a pin. Abundant used to dust off the stalagmites and stalactites every day or two and once a week she washed them down with soap and water.

"It isn't as big as Hermit Cave or Submarine Lake Cave," Jed used to say, "but I will say I've got the transparentest and prettiest stalactites in Carter county. The Hermit Cave stalactites are muddy-like. And, when all is said and done, where is there a cave with seven echoes?"

The seven echoes—and this is the truth—were the making of Jed's cave. He had a Bishop's Pulpit and a Pipe Organ and all the other trimmings a good cave has to have, but every other cave in Carter county had the same, and it couldn't be disputed that Jed's cave was back off the main road quite a distance. People came to Jed's cave

to hear the echoes and it was no use pretending anything else. With the echoes gone Jed's cave was nothing but a tenth-rate cave and not worth bothering about in a county that was full of caves.

When I had worked poor old Jed out from under the stalactites and had shouldered his lifeless form I carried him to the house, but I did not have the heart to tell Abundant about the dead echoes. I just couldn't do it while she was in her first burst of sorrow. I padlocked the cave door and put a sign at the gate of the farm. "Closed because of death in family," and did what I could about the funeral.

After it was all over I talked with Abundant. I asked her what she thought she would do now. It was pitiful to see her trying to be brave and cheerful. She said she thought she would just let things go along as usual. Probably, she said, she would have to get an extra hand to work on the farm and a woman to be a sort of a chaperone, but she said she couldn't do anything but stay on the place and run the cave and the farm and live on the income.

How could I tell her how bad things were? The farm had never earned a cent and never would: Jed had told me that. The farm was nothing but local color. One of the first rules of the Carter County Cave-owners' Association was that every cave-owner must be a farmer, or appear to be a farmer. The trade liked it. The cave-seeing trade was high-class and liked to think of Carter county as plain farm country owned by plain farmers, sweet and unspoiled and unsophisticated, with nothing of the Coney Island thing about it. The minute Carter county began to be Coney Islandish the big car people would pass it by. That was plain common sense; many a cave has been ruined by the owner putting in a soft-drink stand or ice cream tables. The best-cave-seeing trade likes the rustic line, with maybe the woman of the place coming out in a gingham apron and sunbonnet to offer a glass of buttermilk. Then the cave-seeing trade feels it has sort of discovered the cave. When it gets to look like a regular side-show place a cave gets passed up.

For that reason the Carter county cave owners all kept up the simple rustic stuff and had a few cows and chickens round, and wore blue jeans, but there was no money in the farms. Abundant Measure's farm was one of the worst of the lot, too.

There was another thing. Jed hadn't been able to pay cash down for the full value of his farm. He had given a mortgage in part payment and had let the interest payments get behind, and the man that owned the mortgage was a fellow named Rance Titherweight. He had a bad eye. I did not like him at all, and I did not like the way he looked at Abundant when he came round. He was a big, fat man, almost fifty, if not full that, and I was afraid of what he might propose now that Jed was gone and he had Abundant more or less in his fat paws, so to speak. (Continued next week.)

AL ACRES—Al's Late Comers Seem Rather Pious

By Frank R. Leet



The Baptism of Christ

Our Weekly Sermon—By N. A. McCune

BEFORE touching on the main topic of this lesson, let us advert for a moment to the four little books which contain the life of Christ. They are called "gospels," from God-spell, because they spell, or tell, the story of God on earth. Gospel is a good English word. The Greek word is evangel, and the writers are called evangelists because evangel means, good news. The whole story of Christ's life, therefore, and what He taught, is good news. We do not appreciate that as much as we would if we had lived all our lives in a land which knew nothing of the good news until someone came and unfolded it to us. We have the good news so mixed up with the world and its more or less pagan practices that we can hardly distinguish the gospel from the things it is mixed with.

If we could always keep the idea of religion as good news, Christianity



would be the richer for it. We would stop thinking of it as duty, stern and binding, though that is much to be preferred to laxity and indifference. And we would cease thinking of it as perfunctorily attending church. The idea of religion would take on a new significance. It would regain its beauty, spontaneity, gladness, and youth. It would smile again. Will you teach the good news to a class of squirming boys next Sunday, and will you also listen as the minister unfolds the good news?

THE objection to this term is, that the good news is likely to become stale. We hear, for instance, that our favorite candidate has been nominated for the presidency. That is good news. But in a week's time it is no longer good news, it is stale. Can we keep on styling the gospel the good news without its drying out and staling in like manner? That is where the practices of Bible reading, prayer and the daily doing of some Christian act come in. We eat very frequently, most of us at least three times a day, while millions throw a dish of ice cream or soda between acts. We do not get tired of this. No matter how frequently done, we like to eat. The contemplation of the good news of God ought to affect us in the same way. There is no reason why it should become flat or unprofitable.

The three gospels are called the Synoptics because they give synopsis, or outlines of the life of Christ. John does not do this, but gives other facts which he himself had observed, and which, in late life, he tells.

MARK'S gospel is believed to be the first one written, as both Matthew and Luke give much of the same material which Mark does. One of the early church fathers stated that Mark wrote down the material which he got from Peter, and for that reason this gospel is sometimes called the gospel of Peter. Matthew wrote his gospel with Mark in front of him, apparently, and added much other material besides. He writes largely from the standpoint of Jewish thought, and quotes much from the Old Testament to prove that Jesus is the Christ. Mark and Matthew were written as far as we can tell about 58-60 A. D., while John's gospel came much later, between 80 and 90, when the writer was a very old man.

Luke's book is full of medical terms, and is the most full and complete history of Christ's life of the four. It emphasizes the fact that the gospel is for all classes of people, hence he

gives particular attention to the poor, to women and children. He preserves for us some of the earliest Christian hymns. Luke was a Greek physician, and his gospel is written for Gentile readers in particular. He was probably the best educated man of all the New Testament writers except Paul. Mark's book is the shortest and the most vivid, the events moving rapidly from one point to another. The word "immediately" occurs forty-one times. Luke's is the most beautiful gospel, and, in fact, has been called the most beautiful book ever written. Each of the gospels supplements the others.

YOU will observe that Matthew begins his book by quoting from the Old Testament, which would tend to make it more authoritative for Jewish readers. But the quotation is most apt and is as appropriate for Gentile readers, as for Jewish. He quotes these words in order to describe John the Baptist. John was the last of the old prophets. He looked like them, acted like them and talked like them. He lived in the desert regions south of Judea, which covered a large area. It was a desolate region called "the abomination of desolation." There is but little animal life there, the land being swept by wild hot winds. There John the Baptist lived, and ate locusts and honey, a diet that would either kill or cure!

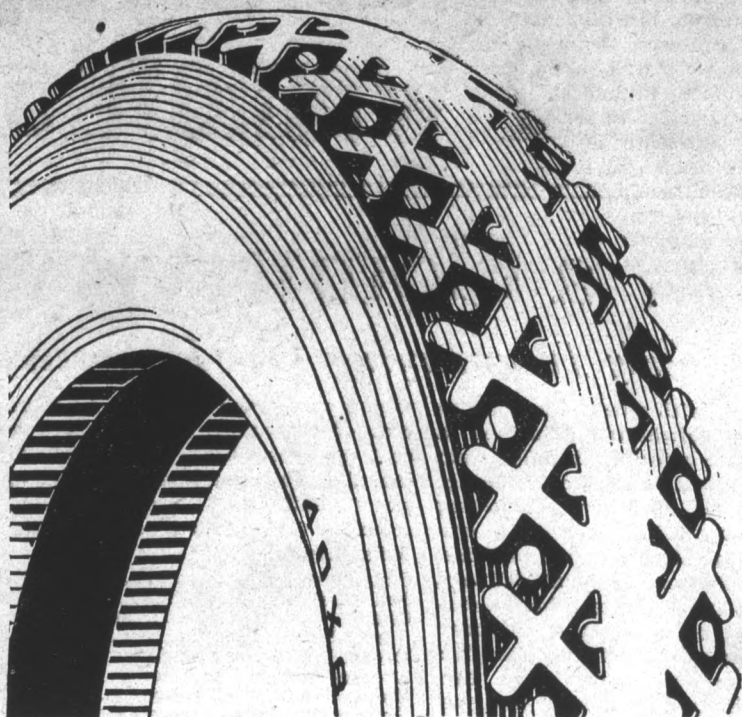
There he had time to think and prepare his message. There he grew strong with God. He was called the Baptist because he insisted on baptism as a condition of cleansing the life from sin. When he began to preach, he at once exerted great power. "And there went out unto him all the country of Judea, and all they of Jerusalem." Thousands trudged out to the Jordan river, to hear this strange, wild-looking evangelist, whose voice pierced them like a sword. Says Dr. W. J. Dawson, "Once more a voice of thundering rang through the land, a presence harshly majestic confronted the nation, a soul of fire began to prophesy. * * * In a few months his fame filled the land. Men of this order, arising suddenly among the easily excited populations of the east, have often driven whole peoples wild with a sort of frantic hysteria. They appear as heralds of fate, voices pre-announcing the breaking up of the times, and the birth of eras."

NOW it was to this man that our Lord went for baptism. John seemed embarrassed that the Coming One, of whom he had spoken, should present Himself for baptism and said that the positions of the two ought to be reversed—Christ ought to Baptize John. But the Messiah said He desired to fulfill all righteousness. He would not be a stumbling block to any man, by refusing to conform to all good practices. You hear people saying with much emphasis that if Christ were here now He would never enter a church, because the churches are so worldly, etc. But such an assumption has little to support it. He attended both temple and synagogue, and both were as formal and cold as any religious meetings could be. He brought new meaning and life to both. He would do the same now. There is no institution which can take the place of the church, and none is doing the work of the church. Christ, were He in bodily form, would give a new meaning to Americans, of church attendance and public worship.

SUNDAY SCHOOL LESSON FOR JULY 20.

SUBJECT:—The Baptism of Jesus. Mark 1:1 to 11.

GOLDEN TEXT:—Thou art my beloved Son, in Thee I am well pleased. Mark 1:11.



Introducing the NEW Kelly Cord

For Commercial Use

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It doesn't need much examination of the new Kelly Cord to convince a car-owner that here is a real tire.

The new Kelly Cord has all the good qualities of the famous Kelly Kant-Slip, plus extra strong sidewalls and a much more massive tread, with reinforced shoulders that add to the life of the tire.

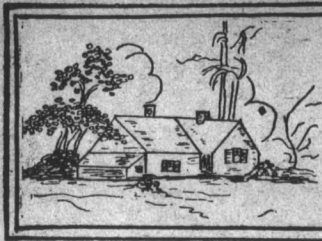
Developed originally to meet the need for a dependable pneumatic truck tire, the new Kelly Cord has been giving such phenomenal service that our dealers and the public alike demanded it in sizes suitable for passenger cars and the smaller trucks.

Now you can get it in all sizes from 30x3½ up to 40x8.

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250 West 57th St. New York



Woman's Interests



How a Country Woman Made Money

By Properly Inventorying Her Resources, She Added Materially to the Family Purse

A WIDOW with a baby son and two young daughters, living on a scrap of a farm, six miles from a large city, desirous of adding to her meager income evolved the following plan and successfully carried it out.

Her farm is situated on a bus line, there is a telephone and mail delivery, also a nice lake near-by where excellent fishing is to be had. A small stream running through the place has sandy banks and sunny sand bars where bathing is a delight and sun baths are popular. A bit of woodland where wild flowers and berries grow affords a pleasant place for picnics, hikes, and the study of birds, barks and botany.

This mother could not burden herself with summer boarders, so she completely renovated an old roomy barn which stood on the place back from the highway, near a pleasant grove of tall trees.

The barn was whitewashed inside

they spent in the country. The total cost of renovating the barn did not cost to exceed \$100. During the summer the enterprising landlady sold the girl tenants the following products from her farm garden, dairy and home bake shop:

Cake, bread and pastry.....	\$ 59.70
Jellies, fruit and berries	29.40
Cheese, cream, milk, buttermilk and butter	44.20
Dressed pigeons and fish.....	9.80
Dressed poultry and eggs.....	18.00
Smoked meats and lard.....	9.15
Potatoes and fresh vegetables..	32.20
For doing fine laundry.....	64.00

Total	\$266.45
Rent of cottage	270.00

Grand total	\$536.45
Expenditures	100.00

Net gain	\$436.45
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Cut garden flowers, vegetables, fruits, cottage cheese and melons, some fine woven rag rugs, patchwork quilts and home-made jams and jellies were sold at the door to friends of the girl tenants and brought in an additional \$187.25.—G. S.

WHERE WE FALL DOWN.

NOWHERE can such a bountiful table be spread as on the farm, if only thought and planning ahead are employed. Yet how many times we drop in to a neighbor's or have this experience ourselves, no meat for dinner, because there was no time to go to town and pay the butcher four times the price we received for it on the farm. We are lax, plainly.

Last winter our pigs and a beef should have been ready to slaughter. Some part of both canned fresh, the balance made into hams, bacon and

corned beef. And let's not forget the good old stand-by—salt pork. What better for a change with cream gravy?

Now vegetables. It takes such a load from the housewife to be able to go into the garden for lettuce, radishes, and onions early in the spring. Later all kinds of vegetables can be ready for the table. It does not take a large plot of ground to furnish all these. Most of them can be cold packed for winter. I have had corn, string beans, peas, beets, carrots, Swiss chard and tomatoes on my fruit cellar shelves from one season's end to the next.

And berries. A small, place, well worked, furnishes fresh and canned strawberries, raspberries and blackberries. Listen how good this sounds. For breakfast, poached fresh eggs and berries. For dinner, ham with cream gravy, green peas, string beans, new potatoes and shortcake. For supper, a vegetable salad, cold boiled ham, creamed potatoes, with melons or berries for dessert. This is in the reach of practically every farmer's family.

In conclusion, plant a few flowers. If time is limited plant a couple of perennials each year and you will be amply repaid in many ways. Let's make our homes real living places, places our children will point to with pride. As mothers, this is our task.—A Farmer's Wife.

SPECIALISTS WILL EXHIBIT SEPTIC TANK.

A SEPTIC tank and water disposal system for the farm home and outlying dwelling is to be demonstrated this summer during August, Septem-

ber and October through the southern four tiers of counties in the state, under the direction of O. E. Robey, Michigan Agricultural College extension specialist connected with the agricultural engineering department.

The new system, which is said to make possible efficient, cheap and sanitary sewage disposal, besides safeguarding the water supply from contamination, has been perfected by Mr. Robey and Prof. H. H. Musselman, head of the M. A. C. Agricultural Engineering Department, and is the outgrowth of the experience gained through the construction of nearly one hundred systems and from observations on the operation of many of these systems under various conditions, extending over a period of eight years.

The demonstration train will travel by truck, giving two demonstrations each day and devoting two days to each county. A complete septic tank will be constructed and demonstrated at each stop.

WHEN YOU'RE THIRSTY.

NOTHING adds more to the enjoyment of a hot summer day than a cool, refreshing drink. These recipes will be found very enticing to suit the individual tastes. If the syrup is prepared a few hours ahead, it will be more convenient and not a waste of ice.

Elderberry Flip.

1 cup elderberry juice	1 lemon
1/2 cup medium white syrup	1 quart water

Mix thoroughly, chill and serve with shaved ice.

Grape Juice, Extra Fine.

1 pint grape juice	1 orange
1/2 cup white syrup	1 lemon

Mix well all ingredients and serve with cracked ice.

Currant Cool.

Mash three quarts of ripe, red currants and cook in the double boiler without water. When thoroughly cooked, strain through cheesecloth and to each pint of juice add one-half cup of syrup. Boil ten minutes, skim and bottle. Keep in a sunny place. This can be diluted to suit the taste.

Cherryade.

To two cups of grapefruit pulp and juice, add one cup of stewed cherries, two cups of water, three-fourths cup of medium syrup. Serve with cracked ice and whole cherries.

A GAME BOX.

WHERE there are young people in the family, a Game Box will be much appreciated.

Any pasteboard box will do. In it are placed clippings of descriptions of games, entertainments, conundrums, tricks of magic, or stunts which will help enliven a company when something different is desirable.

At a surprise party recently attended, such a Game Box was brought out and in a few minutes the ball was merrily rolling, for a couple given the charge of keeping things moving, were able to find delightful and simple plans to follow each other as quickly as needed.

There is a reason why some people are able to entertain so much more acceptably than others. The reason is forethought and preparation.

WHEN soured by disappointment, we must endeavor to pursue some fixed and pleasing course of study, that there be no blank leaf in our book of life. Painful and disagreeable ideas vanish from the mind that can fix its attention upon any subject.—Zimmermann.

and out, and the roof was re-covered with roofing paper. A trellis built across the front was also whitewashed and morning glories were trained over it. The ground underneath this trellis was covered with clean pebbles. The barn windows were cleaned and curtained with stenciled cheesecloth.

With wallboard the loft (there are stairs leading to it) was partitioned off into four sleeping rooms, and four double cots set up. The rough floors were covered with fiber matting. A large oil stove, dishes, kitchenware, a table and chairs were brought from the house, as she had more of these than were needed for her own use. A kitchen table, a couch, several wicker rockers and two hammocks were purchased second-hand at a reasonable price. Cupboards, cabinets, magazine racks and dressers were made of rough lumber and packing boxes found on the place. Draped with chintz they looked stunning. Four mirrors 18x22 were purchased at a second-hand store and cost \$1.25 each.

The stalls of the barn floor were converted into kitchenette, dining-room, living-room and a "shower."

Inexpensive cotton blankets, mattresses and unbleached muslin sheets and pillow cases were provided. Pillows were made of coarse muslin stuffed with bright, clean straw fresh from the mow. Silverware and linens were left for the prospective tenants to provide.

A one dollar ad. in the home town paper brought seven girls who rented the place for the months of June and July and later decided to stay through August and September. They were young working girls and rode the bus to and from work in the city each day. They paid fifteen dollars per week rent for their comfortable summer home, or \$270 for the eighteen weeks

Kid Versus Calf

Light Feet Help to Make Work Lighter

DO you know that kid is a much more desirable leather for comfort than all of the other leathers that are employed in the making of shoes? It is because there is a greater amount of ventilation in this particular leather which is at the same time practically waterproof. That doesn't mean that water will not soak through, but it is more impervious to

moisture than most other leathers.

This is true because there is a greater looseness of leather fiber which permits of greater ventilation. The strength which is an essential, the durability which exists despite this make for pliability and comfort.

In cowhide it is necessary to split the leather which cuts the fibers and reduces its strength.

In the tanning process the oils and oily liquids with which the leather is dressed become a lubricant for the fibers through and through which make them impervious to water. If feet become damp from wearing kid shoes it usually is due to the moisture soaking through the places where the shoes are attached together. It isn't generally recognized that even though delicate in color and soft in texture, there is an imperviousness of moisture which is almost unbelievable in kid.

Ventilation in leather has come to be an important point, for who of us does not know the strain of drawn feet, not only on warm days but on all days after strenuous exercise.

The ventilating qualities of kid skin is due to the fact that the tanning process makes possible an open fiber which is not prevalent in most light or heavy weight leathers. This outstanding value of kid makes for greater foot comfort.—E. Clark.



Kid Shoes Make Light Feet.

Home Canned Tomatoes

The most useful canned foods on the pantry shelf are the cans of tomatoes. Tomatoes are always cheap at the height of the season, and specially easy to can as their acid content prevents spoilage. Blanch for one or two minutes, according to ripeness. Plunge into cold water, remove skins and pack in glass jars. Add a teaspoonful of salt to each quart jar and put in place a new GOOD LUCK jar rubber. Sterilize 30 minutes in a water bath canner and seal at once.

GOOD LUCK JAR RUBBERS

protect your jars against the entry of germ-laden air. Food sealed with them can be kept indefinitely as they will not harden or crack in storage.

GOOD LUCK Jar Rubbers are sold by good grocery and hardware stores everywhere. They come packed in the case with the following well-known brands of fruit jars: Atlas E-Z Seal, Atlas Good Luck, Schram Ever Seal and Schram Acme. If your grocer does not keep them send 10 cents for sample dozen.

For 6 Cents in Stamps

we will mail you our book on Cold Pack Canning. It contains full instructions with sterilization tables and many novel and excellent recipes which your family will be sure to enjoy.

Boston Woven Hose and Rubber Co.
49 Hampshire Street
Cambridge, Mass.

Why Not PUT THIS NEW MILL ON YOUR OLD TOWER

ALBION

Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only main Pitman bearing subject to wear. This is oilless, and easily replaceable. Covers by dependable weight without springs. Fits any 4-post steel tower. Why not shorten your chore hours now with a good Windmill? This is your chance—F. O. B. Albion. Erect it yourself. Ask your dealer, or write direct.

Union Steel Products Co. Ltd.
Dept. 44, Albion, Michigan, U.S.A.

Household Service

Use this department to help solve your household problems. Address your letters to Martha Cole, Michigan Farmer, Detroit, Mich.

TO KEEP THE HAIR IN CURL.

My hair does not stay in curl well. Can you tell me what to do?—Mrs. M.

Your hair may be rather lifeless because of the condition of your scalp and will not stay in curl. Massage the scalp well with the finger tips at night, moving the scalp as much as possible. Brush the hair well with long, even strokes. Before doing the hair up on curlers, moisten with a mixture made of one-quarter cup of water and one teaspoonful of sugar to the beaten white of an egg.

TO REMOVE GRASS STAIN.

Will you please tell me how to remove grass stain from white silk hose? Miss A. R.

Rub the stain gently in alcohol or kerosene and wash in a mild soap solution. White silk hose should not be exposed to the light while drying. Hang on a line between towels.

CLEAN FEATHER PILLOWS.

Conditions have brought me in possession of a pair of fine goosefeather pillows, but they are very badly soiled. Can you tell me how to clean them at home?—Mrs. G. D.

To a tubful of soft water, add one cup of borax and one tablespoonful of ammonia. Place the pillows in this and boil for fifteen minutes. Scrub the ticks with a brush to make sure they are clean. Rinse in three or four waters and hang out of doors in a shady place. Shake often while drying.

PEAS FOR WINTER USE.

All my vegetables kept perfectly but peas. Only a part of them kept. Any suggestions would be greatly appreciated.—Mrs. R. O. S.

It is necessary in canning peas to use only the young, fresh product. They should not be allowed to stand after picking or after being shelled. Blanching is a very important thing. If well done, it will prevent the cloudy appearance in the liquor, and makes the peas more tender. The blanching is done by immersing the peas in boiling water for from three to eight minutes, according to the maturity of the peas. Drain and pack in sterilized jars to within one-half inch of the top, filling with boiling water, to which one teaspoon of salt and two teaspoons of sugar to the quart has been added, using a paddle to remove air bubbles. Process in a steam pressure cooker for 50 minutes under ten pounds of steam, or in a hot water bath for three hours. Finish sealing and store in a dry, cool place.

PICTURE CONTEST SMILES BIG.

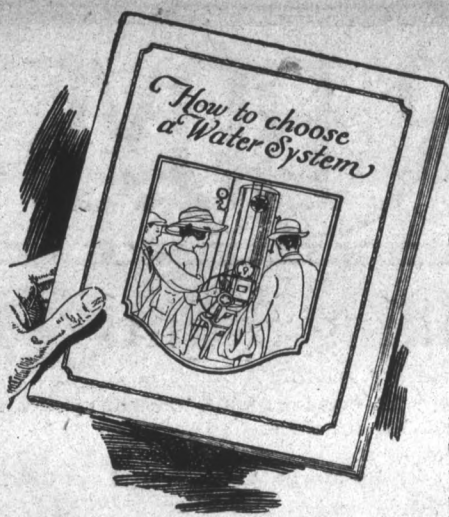
THE postman brought me the pictures of some very fine looking folks for the contest this week. Time would not permit them to be reproduced in this issue, but some of them will smile on this page next week.

The five prizes go to Mrs. J. H., of Warren, Mich.; Mrs. E. R., of Stambaugh, Mich.; Mrs. G. A. R., of Metamora, Mich.; Mrs. F. B., of Midland, Mich., and Mrs. J. M., of Bath, Mich.

CANNING QUESTIONS ANSWERED.

IF you are in doubt how long to process fruits and vegetables, or why your fruits and vegetables spoiled last year, write for our bulletin, "Canning Fruits and Vegetables in the Home." For it send five cents in either coin or stamps, to Martha Cole, Michigan Farmer, Desk M. Detroit, Michigan.

Let scientists seek vitamins
With Nature intervening
Just eat a lot of eggs and greens
You'll get the vit-meaning!



Write for this booklet—it takes the guess-work out of buying a Water System

Send for this Booklet

THERE is no mystery about a private water system. Any home—anywhere—can nowadays enjoy the comfort and convenience of running water under pressure—just like city water service.

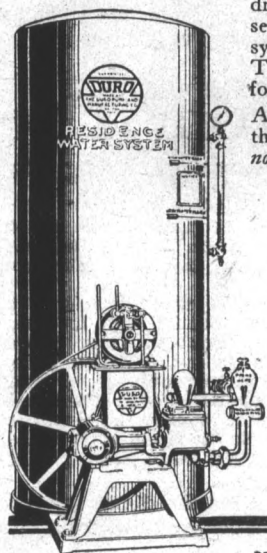
But there is a difference in water systems. And to make it easy for you to select the best water system—the one that will give you the most service for the least money—we have prepared this helpful booklet "How to Choose a Water System". Send for it today.

DURO Water Systems

are built in many sizes—both electric motor and gasoline engine driven. They are compact, powerful—they give a lifetime of service with little or no attention. The cost of a complete Duro system is small compared to time and drudgery that it will save. There is no other one thing that will bring you as much comfort for the same amount of money.

Ask the Duro owner. There is a Duro system near you. Many thousands of Duro systems are being installed this year. Why not investigate? Write the nearest office.

DURO PUMP CO., F. F. Hewitt, Mgr.
308 Davidson Bldg., Bay City, Mich.
DURO WATER SYSTEM CO., Geo. J. Shaffer, Mgr.,
4478 Cass Ave., Detroit, Mich.



"How to Choose a Water System" is a booklet that gives many valuable pointers. It states 40 questions that you should ask in selecting a Water System. Write the nearest address for it.

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

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HAVE LED ALL IMITATORS.
Write Le Roy Plow Co., Le Roy, N. Y.

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After you have used Brown & Sharpe clippers you'll wonder how you ever tried to raise a family without them.

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Brown & Sharpe Mfg. Co., Providence, R.I.

Please send me a free copy of your new booklet, "How to Use Clippers."

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Michigan Farmer Patterns

No. 4743—Ladies' Under Garment. Cut in four sizes: Small 34-36; medium 38-40; large 42-44; extra large 46-48 inches bust measure. A medium size requires 2 1/4 yards of 36-inch material. Price 12c.



No. 4593—Ladies' House Dress. Cut in seven sizes, 36, 38, 40, 42, 44, 46 and 48 inches bust measure. A 38-inch size requires 4 1/4 yards of 36-inch material. The width at the foot is two yards. Price 12c.

No. 4786—Child's Dress. Cut in four sizes, 4, 6, 8 and 10 years. A six-year size requires 2 1/4 yards of 27-inch material. Price 12c.



No. 4781—Girls' Dress. Cut in four sizes, 8, 10, 12 and 14 years. A 12-year size requires 3 1/4 yards of 32-inch material of one kind. Without panels the dress will require 2 1/4 yards of material. Price 12c.

OUR BOYS AND GIRLS

Money Making Stunts

By Three Junior Readers

By Marjorie Yunker, M. C., Howe, Ind.
Taking care of my mother's chickens I have found to be a profitable business.

My sisters were knitting sweaters to earn money, and, as they were earning money, I was eager to earn some also. I had no way to earn it. One day mamma told me if I would take care of the chickens she would give me an egg out of every dozen. I thought this a good way to earn money, so I started out.

My duties are as follows: In the morning I give them feed, water, and open the nests. At night I give them feed, water, gather the eggs, and shut the nests. About every two days I make them a mash which I put in the self-feeders.

We have about 100 hens. Some White Leghorns and some Rhode Island Reds. On an average we get about five or six dozen eggs a day. We now have about fifteen hens setting, so we do not get as many eggs as at first.

On an average I get about eighty

the evenings when the sun wasn't so hot for them.

By Martin Lerg, M. C., Lake City, Michigan.

The best money-making stunt that I ever had was a share in an acre of cucumber pickles. I know that there is money in them for I have tried them. There are many more things to make money, but I take pickles for mine. Here is my reason for liking them.

Last year my father planted an acre of pickles, and if we would hoe them and take care of them, we would get part of the money they brought.

From The Wastebasket

Some Interesting Messages in Prose and Poetry

Dear Uncle Frank and All:

I have written the words I found from the letters in Waste Basket on the other page. I found 100 words exactly.

I am going to wear knickers this summer if my mother will let me. I have my hair bobbed, also. I don't think most boys mean to be rude to girls, except some "cowards." I smashed four dinner pails over their heads and backs this winter, so I guess I paid them back for their snow balls.—Your friend, Vera Dexter, R. 4, Albion, Michigan.

I feel sorry for the dinner pails and the heads. Does your method really work?

Dear Uncle Frank:

Do you really think it is nice for boys to write such ungentleman-like letters about bobbed hair? My hair never was long, but if the girls and ladies wish to have their hair bobbed, I do not think it should make much difference to the boys. That is just my opinion of the question, perhaps it isn't right. If Harold C. and Peter K. would state reasons "why bobbed hair is wrong" other than it gives in the Old Testament of the Bible, perhaps some of the girls would consider them.

As a rule, I do not think boys are rude to girls without a reason. Perhaps it is the girl's fault. Let me explain what I mean. For instance, every time a boy tries to tease you, you scream and make an awful fuss. Although I am a girl, I do not blame them sometimes. Girls, try quietness and kindness, and I think some of you would change your mind about "boys being rude to girls." Oh, yes, I have five brothers and there are lots of boys in our neighborhood, and I am treated kindly. Honest, I am never teased. I think girls, the trouble is with ourselves instead of the boys.—Dorothy Scohenhal, M. C., R. 3, Evart, Michigan.

I hope some girls will try your plan. I am sure it will work. It takes two to make a fight and it takes two to tease—the teaser and the teased.

Dear Uncle Frank:

I surely think boys are rude to girls. Anyway, they are at our school. When we girls start to play ball, of course they are right there; and when we bat the ball, they get it and sling it away. If that's not rude, what is?—Rena Gemmen, M. C., R. 1, Jenison, Michigan.

Very ungentlemanly of those boys. I can heartily agree with you that such actions are rude.

Dear Uncle Frank:

I received my membership card and button, and I certainly feel proud of the honor to become a member of the Merry Circle. The advice given on the little card is true and good, and is worth trying to live up to. If all of us Merry Circle members would live up to the good teachings, we would all be true and faithful members and of good service in this world. Thanking

At the end of the summer we had made \$79.98. We each got \$11.98 to add to our bank accounts.

We made the very best use of our money. Just now, when we don't need it, we put it in the bank because it is drawing interest. Then when we need it, it will be a much larger sum than when we put it in there.

I think it is well for children who have the chance to grow something of their own and get the money from it for their own, because it teaches them how to raise a special thing and how to care for it.

We are going to put in another crop of pickles this year and the money will be ours if we take care of them. You can't lose on pickles, because if they do not grow, you don't have to bother with them.

thirteen and fourteen years old smoking cigarettes and drinking intoxicating liquor. Then with their breaths smelling worse than a glue factory, they have the nerve to come in public where everybody can get a whiff. Well, girls with powder on don't smell like a glue factory, anyhow. They smell like a perfume factory. And I'd rather smell like the latter. I think we girls could boil if we wanted to, but I'm sure most of us won't, because it's none of our business what the boys do and it's none of theirs what the girls do. Do you think so, girls?—From a going-to-be-niece, Iva Groesbeck, Lapeer, Mich.

Yes, a glue factory is bad for the olfactory nerves, but tobacco and liquor breaths are bad, too. They are also hard on nerves in general. Neither do anybody good.

Hello, there! Dear Uncle Frank:

I've just had a little vacation in town. And I surely missed reading the Michigan Farmer. It was the first thing I picked up and read.

Oh, gee, it's so rainy today. I fell on the sidewalk and hurt my right arm, so I can hardly write, although I am sending in a contest paper.

Well, hello, Mr. Waste Basket. I bet you're nearly starved for some of my "cast-off" letters, aer you not?

Well, I'd better ring o: and give my

Prohibition Contest

THE other day a boy suggested that we were spending too much time on such "foolish subjects" as bobbed hair, knickers, etc. He thought we should discuss some of the broader present-day problems which are common public questions. So, for this contest I am asking you to write on the question, "Is Our National Prohibition Law a Benefit?"

Please write about 250 words or less on this subject. Write on one side of the paper only, and put your name and address in the upper left hand corner of the first sheet. If you are a Merry Circler, put M. C. after your name.

The two best papers will win fountain pens; the next three, flashlights, and the next five, little boxes of candy.

Send your opinions on this subject to Uncle Frank, Michigan Farmer, Detroit, Michigan, before July 24, as the contest closes then.

arm a rest.—Mary Ellen Shoemaker, M. C., Grass Lake, Michigan.

I am glad that picking up the Michigan Farmer again was like getting back home. No, I can't exactly say I'm starved for letters, but I'm always glad to get more.

THE MERRY CIRCLERS.

Said a crow unto a robin,
One fine spring day,
Can you please tell me
Who those merry children are
Over 'neath that maple tree?"

Then Robin looked surprised and said,
"Oh, you crows are awful stupid.
Now look closely. Don't you see?
The Merry Circlers 'neath the tree?"

The crow flew away, and Robin said,
They must be having a fine jubilee.
How I wish that I could be
One of Uncle Frank's family.
—Nellie Barber, Vicksburg, Mich.

With all the good members we have, the Merry Circle is something to crow about, even if the crow did not know it.



David Brubacher's Pets, Fido and Fluff. David Says Fluff, the Cat, Permits Fido to Fondle Her Without Protest.

cents each week. From this I put ten cents in the bank each week for the Christmas Savings Club. I also put away that much at home.

I keep enough on hand to buy my pencils and tablets for school, and to give at Sunday School.

I enjoy doing this work very much.

By David Showell, M. C., Linden, Michigan.

Last year my mother gave me four ducks and a drake and told me I could do whatever I pleased with them, so I saved all the eggs and set them as fast as I got enough to set. I hatched 104 of them and raised ninety-five. I sold enough ducks to bring \$60, all of which I put in the bank and it is there yet. I mean to leave it there and to put more with it.

We had some ducks to eat. I think ducks are better than chicken to eat.

The last fourteen ducks I gave to my mother to pay for the feed I used feeding my ducks. I fed the little ducks bread or johnnycake in milk until I got them started, then I gave them a wet feed of corn meal, bran and middlings, with a little meat scrap mixed in. I keep them closed in small pens on hot days and let them out in



Doings In Woodland

Three Babes In the Woods

WHAT a splash it was when the queer log ship on which Jackie Rabbit, Willie Woodchuck and Johnnie Muskrat were sailing along in the moonlight, hit the old stump. Into the water they went, those three sleepy little fellows.

But in a wink they were wide awake and splashing around in the water to find the old log. Of course, right then the Old Man in the Moon hid himself behind a big fleecy cloud (I think it was to hide the smile on his face) and in the dark they couldn't find the log.

"I can't swim any longer," puffed chubby Willie Woodchuck.

"But you must Willie," said Johnnie Muskrat. "Wait, I'll help you."

"I'm getting tired, too, and one ear



Soon They Were Fast Asleep.

is full of water already," said Jackie. "We can never reach shore."

"Keep swimming," cheered Johnnie Muskrat. "I'll help you too in a minute."

You know Johnnie Muskrat was the champion swimmer of Woodland. Willie Woodchuck couldn't swim much because he was too fat, and Jackie Rabbit's big ears always got full of water and then he couldn't swim either. But in the dark Johnnie Muskrat could find his friends.

Then something happened. Johnnie

stubbed his toe. Heaps of times he had done this when playing pom-pom-pull-away and hop-skip. But to stub his toe when swimming meant only one thing, that he was near shore.

"Oh! Ho!" shouted Johnnie so loud that it frightened Jackie and Willie so badly that they forgot to swim, and sank. But hardly was the tips of their ears wet, when up they jumped.

"We're right on shore," they shouted, both surprised and tickled.

So it was that three soaked little Woodland boys climbed upon the bank of the river, just where they did not know, but a long way from home.

"I want to go home," whimpered Willie Woodchuck.

"So do I," answered Jackie Rabbit with a homesick choke in his throat.

"And so do I," said Johnnie Muskrat. "But we'll just have to wait until daylight for we don't know where we are. If we start out in the big woods we will be lost."

"I suppose we will have to wait until morning, but I wish I was home. Let's build a fire and dry out clothes," said Willie Woodchuck.

"But we haven't any matches," said Johnnie.

"I can build a fire without matches," said Jackie Rabbit.

So he gathered some dry leaves and twigs and with a couple of sticks which he rubbed together, as Father Rabbit had taught him, they soon had a blazing fire.

Dancing flames and pretty sparks made them feel more cheerful and as they dried their clothes they planned what they would do on the morrow.

"Don't you remember the story that Teacher Fox told us at school. We're just like the Babes in the Woods," said Jackie Rabbit.

So the three curled up on a bed of leaves and were soon fast asleep.



A CONFIDENTIAL TALK.

YOU must know a tremendous lot to be able to answer all those letters," writes a subscriber.

Between my natural modesty and a desire to make the editor thing he is getting his money's worth, I prefer not to make a direct reply. I will admit, however, that I have picked up a few items of knowledge in my twenty years' practice, and I will add that I am in constant touch with experts who are always willing to give counsel. Furthermore, I have the immense advantage of the medical section of the state library right at my hand. So I think you are quite warranted in asking me some hard questions.

The bulk of my letters come from those who have exhausted the measures of relief that are at hand. They have consulted local doctors in vain, or live too far from a doctor to be able to consult one. This thing of being a court of last resort creates an intense interest. Some of the letters are piteous in their pleading, many tragic in their hopelessness, and some would be embarrassing in their delicacy were they read by anyone but the doctor. Some of you write to me, too, about things that are good for a

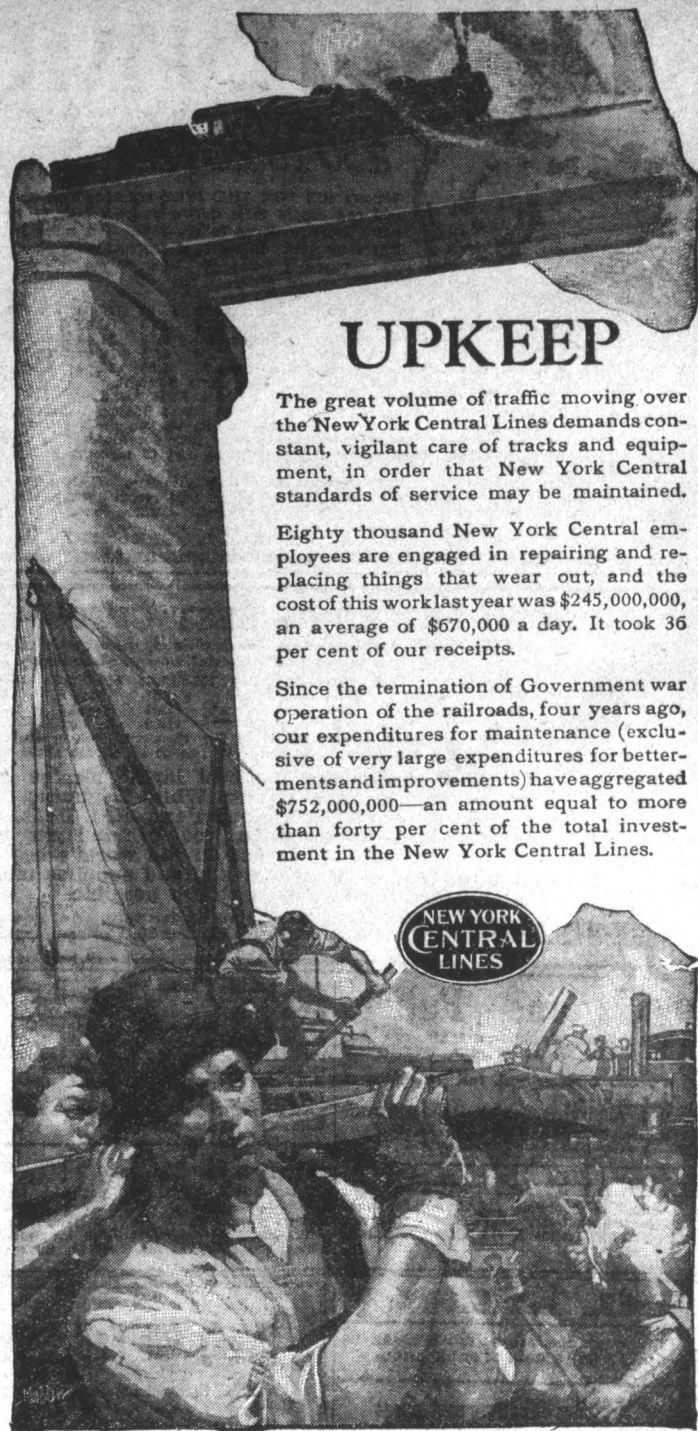
laugh, just a quiet chuckle all to myself—no harm done, it might have been a serious matter to you.

The object of these remarks is not to head off your letters—unless it be those about trifling ailments that can be settled by paying a dollar to your home doctor. No, let the letters come. But bear in mind that my answer must sometimes be that I know nothing better than you have tried, or that I see no hope for improvement, or that waiting for the end is all. There is a note of great tragedy in some of the letters I have recently received. The writers have my deep sympathy but I can give them nothing more. Only the one who healeth all diseases can help them.

HAS HAMMER TOE.

I am a young man of thirty-one and I have a hammer toe. Please say if I can have this fixed up without having the toe cut off.—Joe.

I think so. This is generally associated with a deformity of the great toe, the two seeming to go together. At your age it calls for a surgical operation but the result will be to give you much better use of your foot and save you great annoyance for the rest of your days.



UPKEEP

The great volume of traffic moving over the New York Central Lines demands constant, vigilant care of tracks and equipment, in order that New York Central standards of service may be maintained.

Eighty thousand New York Central employees are engaged in repairing and replacing things that wear out, and the cost of this work last year was \$245,000,000, an average of \$670,000 a day. It took 36 per cent of our receipts.

Since the termination of Government war operation of the railroads, four years ago, our expenditures for maintenance (exclusive of very large expenditures for betterments and improvements) have aggregated \$752,000,000—an amount equal to more than forty per cent of the total investment in the New York Central Lines.

NEW YORK CENTRAL LINES

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AND THE NEW YORK CENTRAL AND SUBSIDIARY LINES
General Offices—466 Lexington Ave., New York

TRY a Michigan Farmer Classified Liner—They cost little and bring big results. See rates on page 55.

THRESHING OUTFITS FOR SALE

Because of the late season, we find ourselves with a larger stock of used steam engines and grain threshers than we should have at this season and in order to move them quickly are offering them at specially low prices at a time when you can make them earn their cost for you.

Pick out the size you want and write us for description and price. You'll be surprised when you learn how good they are and how little money will buy a complete threshing outfit

USED ENGINES

- 4 19 H.P. Port Huron
- 1 24 H.P. Port Huron
- 1 22 H.P. Double Port Huron
- 1 16 H.P. Port Huron
- 1 20 H.P. Double Rumely
- 1 20 H.P. Double Reeves
- 1 16 H.P. Huber
- 1 20 H.P. Nichols & Shepard

USED SEPARATORS

- 3 33x54-inch Port Huron
- 1 30x46-inch Port Huron
- 1 30x44-inch Advance
- 1 28x42-inch Batavia
- 1 28x46-inch Buffalo Pitts
- 1 33x56-inch Reeves
- 1 30x46-inch Russell
- 1 28x40-inch Nichols & Shepard

Send for our latest Rebuilt and Used Machinery Bulletin and Supply Catalog.

PORT HURON ENGINE & THRESHER CO.,
Port Huron, Mich. Logansport, Indiana

CHICKS of QUALITY

*Bred from Sires of
250 to 280 Egg Strains*

We are still "ON THE JOB" hatching high-grade chicks and can supply them during entire month of July. We hatch every week up to the 29th. Get order in at once before too late. Prices most reasonable—stock unexcelled.

Varieties	25	50	100	500	1000
Extra Selected Barron or Holly-wood S. C. W. Leghorns, by 250 to 280-egg males.....	\$2.75	\$5.25	\$10.00	\$45.00	\$90.00
Selected Barron W. Leghorns.....	2.50	4.75	9.00	42.50	80.00
Extra Selected Sheppard Anconas.....	3.00	5.75	11.00	52.50	100.00
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Parks Bred-to-Lay Barred Rocks.....	3.75	7.00	13.00	62.50	120.00

Broiler, Mixed Chicks, Seven Cents Straight.

PULLETS AND BREEDING STOCK FOR SALE.

Selected White Leghorn Pullets, 8 to 10 weeks old, \$1.10 each; Sheppard Ancona Pullets, \$1.30 each; Barred Rock Pullets, \$1.50. Prices reduced for 100 or more. After July 15th we have 700 choice Tom Barron and 400 Sheppard Ancona breeding hens for disposal at \$1.25 each. Also, selected cocks of same breeds, \$1.25 each. These must be sold to make room for growing stock. Our space is limited.

ORDER AT ONCE from this ad. We can make immediate shipment. Cash with order or sent C. O. D. if desired. All chicks sent to your door by parcel post prepaid, 100% live delivery guaranteed. Pullets and stock shipped by express, charges collect. Catalog Free.

SILVER WARD HATCHERY, Box 29, Zeeland, Mich.

REDUCED PRICES for BEST CHICKS

For July and August—Pure-bred chicks, hatched right, large and strong, postpaid live delivery to your door.

Breeds	25 Chicks	50 Chicks	100 Chicks	500 Chicks	1000 Chicks
White Leghorns.....	\$2.50	\$5.00	\$9.00	\$42.50	\$85.00
Barred Rocks.....	3.00	6.00	11.00	52.50	105.00
S. C. R. I. Reds.....	3.00	6.00	11.00	52.50	105.00

Broilers, no breed guaranteed, \$7.00 Per Hundred. Rock or Red Broilers \$9.00 Per Hundred. Low prices on Pullets of all the above breeds.

Our strains are the best laying strains obtainable. Tancred and Barron White Leghorns, Parks' Barred Rocks and Michigan Agri. College and Penn. R. I. Reds, direct from these breeders. Our birds have always proved their laying ability at official contests. Our chicks are hatched in the world's best incubator, the only incubator that never over-heats, and supplies moisture automatically, thus assuring the strongest chicks possible.

Order at once. Immediate delivery. Quality and price talk. Act now.
BRUMMER-FREDRICKSON POULTRY FARM, Box 20, Holland, Mich.

Cockerels and Pullets

Leghorns, Rocks, Reds, Wyandottes, Orpingtons, Anconas, Minorcas. Also Geese, Turkeys, Ducks. All Pure Bred.

Send for complete Circular with full description of stock and price list.

STATE FARMS ASSOCIATION, Kalamazoo, Mich.
Member International Baby Chick Association
Member Michigan State Farm Bureau

BRED TO LAY Barred Rock Chicks

of quality. Culled by experts. \$10.00 per hundred, postpaid. 100% live delivery. Order from this ad.

KRUEPER POULTRY FARM & HATCHERY, Milan, Mich.

BREEDERS' DIRECTORY

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

Forest Hills Guernseys

FOR SALE—12-mo-old bull, dam's record, 450 lbs. fat at 2 yrs. \$200. Three-mo-old bull calf \$50; yearling bull, \$150. Three-year-old bull, for sale or lease, \$25 per year. **M. HOMPE, R. 5, Grand Rapids, Mich.**

FOR SALE Two Guernsey cows and a bull. **S. W. SOMMER, Dryden, Mich.**

Reg. Guernseys Choice Bull Calf 10 mo. old, out of a good A. R. O. cow. **J. M. WILLIAMS, North Adams, Mich.**

Guernseys For sale, Reg. yearling heifers, bull calves, May Rose breeding, prices very reasonable. **W. W. Burdick, Williamston, Mich.**

For Sale Registered Guernsey Bull Calf, seven months old. **FRANK E. ROBSON, Room 303 M. C. R. R. Depot Bldg., Detroit, Mich.**

A Great Opportunity

We are offering a young Holstein bull ready for service by a 32.63-lb. son of Matador Segis Walker, a brother to Segis Pieterje Prospect, the world's greatest cow. Dam of calf by a 35.73-lb. bull King Segis breeding.

Hillcrest Farm, Kalamazoo, Mich.

Address replies to F. B. Lay, 2525 Clybourn Ave., Chicago, Ill.

June-July and August Prices Barred Rocks, White Rocks, White Wyandottes or R. I. Reds, 13c; White Leghorns or Broiler Chix, 10c in lots of 25 or more. We produce only one Grade—the Best. March, April, May, biggest in our 14 years of hatching. If convenient send full amount, if not send 10%, balance few days before chix are to be shipped. Sept. Chix 14c straight, 100% Delivery by parcel post prepaid. **GREEN LAWN POULTRY FARM, Gus Hecht, Prop., Fenton, Mich.**

Send No Money for Silver Lake Chicks. We ship C. O. D. 100% live chicks, postpaid, from pure-bred, heavy laying stock. White & Brown Leghorns, 8c; Barred Rocks & Reds, 10c; White & Buff Rocks, Buff Orps., White Wyandottes, 12c; mixed chicks, 7c. **Silver Lake Egg Farms, Box M, Silver Lake, Ind.**

Ready for Fall Service

A nice, light-colored calf born October 4, 1923.

His sire is a son of Echo Sylvia King Model, Senior Sire at the Traverse City State Hospital Herd, and a 24.9-lb. three-year-old daughter of a 31-lb. cow with a yearly record of nearly 1000 lbs. butter.

His dam is a 20.9-lb. daughter of a 19.8-lb. cow and combines Pontiac Korndyke and King of the Pontiacs breeding.

Bred at Michigan Reformatory.

Send for pedigree and price.

**Bureau of Animal Industry,
Department C. Lansing, Michigan.**

Hereford Steers

60 wt. around 850 lbs.; 74 wt. around 775 lbs.
88 wt. around 650 lbs.; 44 wt. around 600 lbs.
46 wt. around 550 lbs.; 50 wt. around 500 lbs.
Deep reds, good grass flesh. Some bunches just fair flesh account of short pasture. Real quality Herefords are usually market toppers when finished. Will sell your choice, one car load or all. Give number and weight preferred. **VAN B. BALDWIN, Eldon, Wapello Co., Iowa.**

HEREFORD BULLS

We are offering some exceptional bargains in young Hereford bulls. **HARWOOD HEREFORD FARMS, Six miles south of Ionia, on M-43.**

ABERDEEN ANGUS OFFERING AN OPPORTUNITY

To Obtain a "MISS BURGESS" BULL

We are offering "Burgess of Wildwood," 366749, sired by the world famous Imp. "Edgar of Dalmeny" and out of the imported "Miss Burgess 17th of Kirkton."

This bull is a real herd leader and a splendid show prospect. Price \$500.

We are also able to offer "ENLIGHTENER," a splendid "Enchantress" bull, by "Edgar of Dalmeny." Price \$300.

These animals are ideal types, have soundness, beauty, breeding ability and ancestral quality.

U. S. accredited tuberculosis free herd.

WILDWOOD FARMS, Orion, Mich.

W. E. SCRIPPS, Prop.

SIDNEY SMITH, Supt.



When Is a Hen Old?

By R. G. Kirby

WHEN culling the flock it is the custom to rigidly inspect the one and two-year-old hens and find fault with them if possible. Pullets are the best fall and winter egg prospects so almost any old pullet is retained. It is admitted that well-bred pullets will usually lay more eggs during a given period of production than year-old hens. But I believe there are some advantages to the hens that should not be overlooked.

A good year-old hen is raised and more or less ready to keep busy filling the egg basket. A pullet has required six or eight months to develop before laying any eggs. I believe that the egg from an old hen is worth two pullet eggs for hatching purposes and that many flocks are reduced in vigor by constantly selling off all, or nearly all, of the hens each year and breeding from the pullets.

One of the greatest handicaps in the poultry business is the great cost of replenishing the pullet flocks each year. The dairyman builds up a nice herd and barring serious loss from disease he has accomplished something good for quite a number of years. No sooner does the poultryman build up a flock than they are usually ready for market and the egg producers must be developed again with all the accompanying expense and worry of hatching and brooding.

I believe that a hen's age should be computed not only in years but in vigor as well. Some hens at the completion of the first year are either baggy with fat or seriously lacking in vigor. Other hens are full of strength and vigor. They are not dull and beefy but agile singing birds that are willing to work for a living. Such birds have been through a winter of laying and proven their vitality by still living in spite of bad weather and concentrated laying rations. Hens of that type are of great value in producing the type of pullets which prove to be profitable layers.

When is a hen old? Possibly after she is three years old and shows the signs of age. Possibly at the completion of her pullet year when she has proven only medium as a producer. I think that poultry profits will increase when more poultrymen try and keep a good flock of one and two-year-old hens of great vigor for breeding purposes and do not cull out too many of the good hens which must be replaced with pullets of uncertain ability.

One of the great needs of the poultry business is strong, vigorous young stock and I do not think they can be obtained if breeding from pullets is continued year after year. The great complaints from poultrymen are not generally kicks because their flocks are averaging only 150 eggs per year, or less, instead of 200 eggs or more. The worries are caused by tuberculosis, white diarrhea, coccidiosis and all the other troubles which easily attack the weak and devitalized stock from heavily forced pullet breeding stock. I believe that the sturdy blocky chicks from mature, vigorous hens can eat a lot of germs and keep on scratching. So, if you are breeding your own flock do not be too free in selling too many of the vigorous year-old and two-year-old hens for meat. They will prob-

ably lay a few less eggs than pullets, but they may help to keep your poultry flock in vigorous condition. This does not mean to keep culls, but to have the good ones. Results at the various experiment stations prove that a good bird does not necessarily have to be a pullet in order to lay profitably.

DOOMSDAY FOR SLACKER HEN.

DOOMSDAY for the slacker hen of 1924 is approaching just as fast as the calendar will allow.

From June on through to October poultrymen who want to keep egg production up to fifty per cent will cull out the slackers. To guide the culling the following suggestions are offered:

Pick for slaughter the bird whose comb is pale, small, and shriveled; beak, yellow at the base; eye ring and ear lobe, yellow; vent, yellow, shrunken, and dry; fat, heavily fleshed and yellow; eyes, shrunken, dull, listless; plumage, molting; skin, thick and tight; pelvic bones, close together, hard and rigid; pelvic bone to breast bone, close together, hard and rigid.

The average flock needs to be culled at about this rate: In June, six per cent; July, nine per cent; August, eleven per cent; September, fifteen per cent; October, sixteen per cent.

Most hens, poultry specialists say, stop laying when they begin to molt. The early molting hen is not a consistent layer. She takes all the fall months as a vacation for changing her plumage. The consistent layer molts late and grows her plumage rapidly.

As a general rule, the first hens in the flock to molt should be sold, and the last to molt should be kept for breeding.

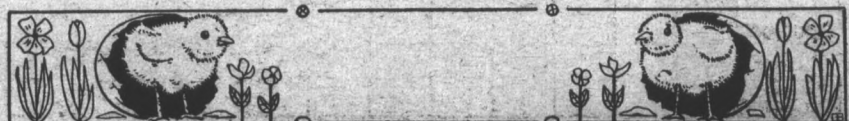
WHY THE BEES LEFT THEIR HIVES.

SO far as I can remember I never had but one colony desert its hive, and that was a new swarm hived in a new hive without any brood being given it from the old hive. I have been called by several friends to see why their bees desert. One widowed lady said she tried hard to keep bees but they would not stay in her hives, and I soon discovered that her hives were e togetheratio-beH..n, !lb,pwoult. close under peach trees, with weeds growing tall about them, and sitting so close to the ground the grass almost closed the entrance, which was small. I advised her to raise the hives, enlarge the entrances, and cut the weeds. Lack of ventilation causes most desertions.—Agnes Hilco.

DRYING MILK FOR HENS.

As I have lots of milk, can I make dutch cheese and dry it for feeding to chickens in the winter?—E. M.

Milk products are dried commercially and stored for use in poultry mashes, but I do not know of a process which could be used profitably at home to dry the curd for winter use. All the poultrymen I know use skim-milk and milk products available for their poultry as fast as the milk is produced and it is seldom stored in any form for over three or four days.



LIVE STOCK AND DAIRYING

WATER AND SHADE.

ANIMALS suffer greatly from the heat. We are busy in the summer and are prone to let the live stock look out for itself. Most all kinds of domestic animals are very capable of doing this if they have the opportunity.

Too often, however, they are shut up in fields and pastures through the heat of the day without shade and without water. These two things, properly provided, will go a long ways toward keeping the animals comfortable, and there is nothing that can take their places.

The ideal pasture contains both a liberal supply of dense natural shade and clear running water, but these ideal conditions are given only to the few. On many farms they must be

DAIRYMEN MARK AUGUST 22.

AFARMERS' Dairy Day has been planned by the Michigan Milk Producers' Association and the Dairy Department of the Michigan Agricultural College, to be held at the college, East Lansing, on August 22. Speakers of national prominence are scheduled to address the visitors. It is expected that an attendance of upwards of ten thousand people will show up at the college on that day.

provided by artificial means, and where this is necessary it will mean a great deal to the farmer to see that they are not neglected.

The same sheds that offer the live stock shelter from the cold and storms of winter, may often be used to provide protection from the sun's direct rays in the heat of summer, in which case they should be kept reasonably clean and well ventilated. But stables that are closed may become well nigh suffocating to a hot animal on certain days when the atmospheric conditions are oppressive.

The artificial water supply may also be entirely satisfactory if it is adequate. A good windmill and supply tank is a great labor-saver and means a constant supply of water on hand. The important thing is to see that water is available where the animals can get it at will, or, at least, that it is supplied often on hot days.

PURCHASER WANTS RECORDS.

WHY go outside the Upper Peninsula to secure pure-bred dairy stock, asks Karl Knaus, county agent of Menominee county? This question was asked also of the promoters of

the Cloverland dairy special train recently. The answer given the agent was that, although Menominee county might have as good stock as anywhere the records that prove it are lacking. Purchasers want to know what the stock they are asked to buy has behind it by way of milk and butter records. Hereafter, says the agent, Menominee county farmers will have the records to show,

HOGS SEESAW WITH CORN.

(Continued from page 39).

year have passed into consumption, but hog production is being expanded in that country and the present credit stringency restricts purchasers of our hog products to the most immediate and imperative needs. Danish producers are still furnishing a larger amount of hog product for export than last year, most of it going to Great Britain where the market is overloaded and prices are still depressed. Prices in Denmark are unprofitable to producers and it is reported that the Danes have begun to cut production as American hog growers are now doing.

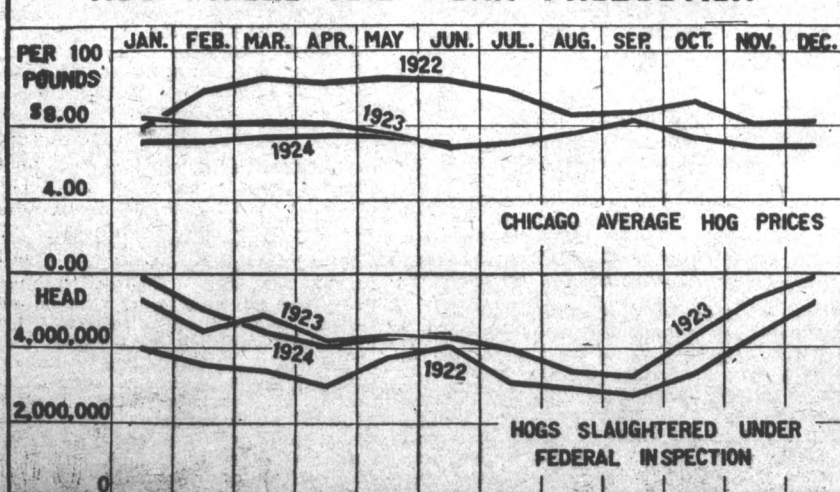
In general, the European financial and industrial situation seems to be improving. These changes point to a more healthy foreign market for hog products, eventually, but it must be accepted as a permanent fact that we can only export large amounts when our prices are low. So far as immediate conditions are concerned, foreign demand for hog product is more or less seasonal, the late summer and fall months being the best in most years. Already those in close touch with the trade sees signs of some expansion in foreign demand.

Radical Improvement Eventually.

All told, the change in the corn situation in the last month has introduced some uncertainty into the hog market outlook. But broadly stated, the conditions now at work mean that much more profitable hog prices are coming sometime or other. The ratio of prices compared with corn will not become favorable as soon as it would have done if a normal corn crop could be expected this year. Furthermore, as long as the unfavorable price ratio continues, the liquidation of herds will tend to maintain heavy receipts and prevent hog prices from reflecting the change that is actually taking place in production.

Both of these influences point to a more drastic curtailment of production and to a more radical rise in hog prices in the next year or two as well as to a longer period of favorable hog prices compared with corn when the change finally occurs, than would have taken place if a normal corn crop were in prospect for this year.

HOG PRICES AND PORK PRODUCTION



To Michigan Dairymen:

IN being asked to make your decision, as to what kind of dairy feed you will use next fall and winter, much emphasis will be laid on the price per ton, amount of digestible protein and other similar matters.

What you are definitely interested in, now --and as long as you produce milk--is:

"What will it cost me to produce 100 lbs. of milk?"

Here are some facts that should help you in making your decision:

Starting in March, 1922, right after freshening, and continuing for 365 days, a good New York State 6-year-old cow, on a plain, "dirt" farm was fed exclusively on the standard "Public Formula" 24 per cent ration (according to the published advertisement of the Grange League Federation of July 27, 1923.)

Then, after being dry only ten days, she freshened again in March, 1923, and went on test for another 365 days; this time being fed on Unicorn Dairy Ration.

Both tests were carefully supervised by the Cow Testing Association and checked by the New York State Supervisor. The Unicorn used was purchased through the usual trade channels.

Based on the figures given in the Grange League Federation advertisement, and taking the quantities of both feeds used at the same price, the following figures on the "grain" cost of producing 100 lbs. of milk are obtained:

With Public Formula 24 per cent	- -	86c
With Unicorn Dairy Ration	- - -	64c
Saving per 100 lbs. milk	- - - -	22c

Or, to put the comparison in another form: To use the "Public Formula" 24 per cent feed, the cost to the dairyman was over \$10.00 per ton more than when Unicorn was used.

You do not have to tie yourself up with a contract to get this good Unicorn feed. Your feed dealer can supply you. What you want is to make milk at lowest cost--every month in the year. Unicorn will do this for you.

CHAPIN & COMPANY

327 South La Salle Street, CHICAGO, ILL'NOIS



Hog's Sick?

Even hogs on pasture are subject to Worms, Necrotic Enteritis and Stomach Troubles. All hogs, sick or well, need:

Feed Semi-Solid Buttermilk

to keep them healthy, thrifty and profitable. It can be fed in a very dilute form with excellent results--costs less than one cent a gallon. Walter L. Nash, Xenia, Ohio, writes: "Several of my fall pigs had died from Necrotic Enteritis. Since I commenced feeding Semi-Solid I have not lost another pig."

Be safe. Get some Semi-Solid today

CONSOLIDATED PRODUCTS CO.

4750 Sheridan Road

Dept. 900

Chicago, Illinois

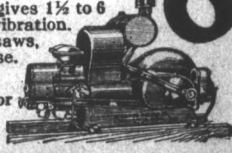
My Engine Will Do the Work of 6



Write now for facts about this wonder engine. Same engine gives 1 1/2 to 6 H. P. Gasoline or kerosene. Portable, light, and free from vibration. Requires no anchorage. Easy starting--no cranking. Pumps, saws, grinds and does all chores. Plenty of power for every purpose.

Low Factory Price--Free Trial Offer

Tremendous value. Thousands of satisfied users. Write now for details and free trial offer on this amazing engine. Edwards Motor Co., 119 Main St., Springfield, Ohio





THE LATEST MARKET REPORTS



GRAIN QUOTATIONS

Monday, July 14.

GRAIN.

Wheat.

Detroit.—No. 1 red \$1.25; No. 2 red \$1.24; No. 3 red \$1.21; No. 2 white \$1.26; No. 2 mixed \$1.25.

Chicago.—Sept., \$1.23@1.25; December \$1.25½@1.26; May \$1.20¼@1.20½.

Toledo.—Cash \$1.26@1.27.

Corn.

Detroit.—No. 3, \$1.12; No. 4 yellow \$1.07.

Chicago.—Sept., \$1.04½@1.05¼; December 87½@87¼c; May 88½c.

Oats.

Detroit.—Cash No. 2 white 60c; No. 2, 58c.

Chicago.—September 47½@47¼c; December 49½c.

Rye.

Detroit.—Cash No. 2, 84c.

Chicago.—September 84½@84¼c; December 87½c.

Toledo.—85c.

Barley.

Barley, malting 90c; feeding 85c.

Beans.

Detroit.—Immediate and prompt shipment \$4.55@4.65 per cwt.

Chicago.—Navy \$5; red kidneys \$8.

New York.—Choice pea at \$5.35; red kidneys \$8.75.

Seeds.

Detroit.—Prime red clover cash at \$11.75; alsike \$10.65; timothy \$3.70.

Hay.

Strong.—No. 1 timothy \$23.50@24; standard and light mixed \$22.50@23; No. 2 timothy \$21@22; No. 1 clover at \$19@20; No. 1 clover mixed \$20@21; wheat and oat straw \$11.50@12; rye straw \$13@14.

Feeds.

Bran \$31; standard middlings \$32; fine do \$36; cracked corn \$52; coarse cornmeal \$48; chop at \$44 per ton in 100-lb. sacks.

WHEAT

The government's forecast of the wheat crop was raised 47,000,000 bushels based on the July 1 condition. Farm reserves of old wheat are smaller than a year ago. The total available supply, counting carryover and new crop, is about 40,000,000 bushels less than for the crop year just closed. Wheat prices declined early last week under hedging sales. The mills have bought new wheat freely, flour sales have increased, and the premium of 16 to 18 cents at Winnipeg over Kansas City has tended to divert foreign demand to our markets. Black rust has been found in the northwest, but no damage has been reported. Canadian official reports show a decrease of four per cent in acreage and a condition of 92 against 106 a year ago. The indicated yield is about 330,000,000 bushels. This would mean 189,000,000 bushels less in North America than last year.

RYE

The new rye crop is now estimated at 65,000,000 bushels, or slightly more than a month ago and a year ago. The 1918-1922 average was 78,000,000 bushels. Rye prices declined last week and clearances for export dropped sharply. But, the break attracted new buying by northern Europe with indications that much more business is being done than is reported. The situation in Russia is indicated by the smallest shipments from that country in a year and by the fact that Finland was a buyer in the United States.

CORN

The condition of the corn crop on July 1 was reported at 72 per cent in the official returns, by far the poorest ever known. The ten-year average for July 1 is 85 per cent. Only once before in 1903 was the July condition as low as 80. With a small increase in acreage over last year, the crop forecast was 2,515,000,000 bushels, the smallest since 1918 and nearly 18 per cent smaller than last year. Likewise, it is about 400,000,000 bushels less than average domestic consumption during the last five years. Prices moved up to a new high for the season last week. Demand has held up surprisingly in view of the advance in prices, the indications of decreased consumption by live stock and negligible exports.

OATS

The oats crop forecast was raised to 1,356,000 bushels in the July returns, an increase of 124,000,000 bushels, or 10 per cent in the last month. The average crop of recent years has been about 1,300,000 bushels. The barley

crop also has improved and is placed at 170,000,000 bushels. After a sharp decline oats prices have turned up again because of the advance in corn and extreme scarcity of oats for delivery on July contracts. The new crop will begin to move shortly, although harvest is a little late, and, with a big crop, most of the strength in this grain will be borrowed from corn.

BEANS

The estimate of the bean crop as of July 1 shows an increase of 100,000 acres in the area planted, but a much lower condition than last year and the crop forecast of 13,629,000 bushels is nearly ten per cent less than the harvest of 1923. Michigan is credited with practically the same acreage as a year ago, but with a yield of only 6,057,000 bushels against 6,719,000 bushels harvested last year. Colorado shows a tremendous increase in the acreage and crop while in California both the acreage and the crop forecast are much smaller than last year. The bean prices advanced last week to around \$4.70 per 100 lbs. for C H P Whites, f. o. b. Michigan shipping points. Red kidney beans are extremely scarce but are quoted at \$7.85@8, Michigan.

SEEDS

Retail sales of most kinds of field seeds in the last twelve months were larger than in the preceding year, according to a survey by the United States Department of Agriculture. Increases were most marked in soybeans, sweet clover, alfalfa and seed corn. Sales of red clover and alsike increased in some sections of the country but the high price of domestic red clover seed and increasing popularity of other legumes caused some diversion of demand, especially from red clover.

FEEDS

Prices of wheat feeds have eased slightly from the level of last week. Buying is confined to immediate needs which are relatively small. Mills are not pressing their offerings on the market, however. High protein meals are quiet at unchanged prices. Hominy feed prices are firm while the high price of corn and limited output from industries have brought about an advance of \$1 in gluten feed.

WOOL

The wool market has shown a sudden revival of strength in the last few days and Boston reports slightly higher prices on fleece wools. All of the reasons for the quick change are not apparent but there are indications of a revival in the textile industry, both in wool and cotton. Cancellations of orders for goods with mills being reinstated, the strike situation in the clothing industry has been settled, and

the openings on light weight goods to be made in the next few weeks suggest some increase in volume of mill operations. The London sale averaged well above a parity with prices at Boston, with Japan and France the most prominent buyers.

Boston quotes the better Ohio and Pennsylvania and similar fleeces as follows: Fine strictly combing 52@53c; fine clothing 39@40c; ½-blood strictly combing at 50@51c; ½-blood clothing at 43@44c; ¾-blood strictly combing 47@48c; ¾-blood clothing at 42c; ¼-blood strictly combing at 42@43c; ¼-blood clothing 40@41c; low ¼-blood strictly combing at 41@42c; common and braid 38@39c. The better class of New York, Michigan, Missouri and Wisconsin wools are one to three cents less than above.

HAY

The condition of the hay crop improved during June and the official estimate of the yield of tame hay was 90,000,000 tons against 89,000,000 tons a year ago, and an average of 86,000,000 tons from 1918 to 1922. Hay markets show little change as the light receipts have held prices practically steady. New timothy is beginning to arrive at northern markets.

POULTRY AND EGGS

Fresh egg prices resumed the upward trend last week. Buying to replenish short stocks was largely responsible for the new strength. Receipts are still fairly liberal for this season, being fully 25 per cent heavier than in the same period last year. The consumptive demand is falling off. Select quality eggs find an outlet at all times while undergrade eggs move slowly whenever buying falls off. With the consumptive demand for poultry affected by hot weather, and large receipts of all kinds arriving at the large markets, poultry prices were lower last week. Fowls suffered most from the decline.

Chicago.—Eggs, miscellaneous 24@24½c; dirties 22½@23c; checks 22½@23c; extras 30½@31½c; fresh firsts 24@24½c; ordinary firsts 24@24½c.

Live poultry, hens 21c; broilers 28@29c; springers at 33c; roosters 14c; ducks 16c; geese 12c; turkeys 20c.

Detroit.—Eggs, fresh candled and graded 24½@26½c.

Live poultry, broilers 40@42c; heavy hens 25c; light hens 18@19c; roosters 15@16c; geese 15c; ducks at 25@27c; turkeys 25c.

BUTTER

An excess of butter receipts over demand in the last few days weakened the market and prices declined slightly. Failure of a large percentage of receipts to grade fancy kept prices from declining further. Receipts for the week were about 15 per cent heavier than in the preceding week and 30 per cent larger than in the same week a year ago. Foreign markets are firm, with Danish considerably higher than a week ago. Imports are light and are not expected to show any increase during the rest of the month. Prices are: Ninety-two score creamery, Chicago 38½c; New York 40½c; Boston 41½c; Philadelphia 41c. Ninety score centralized Chicago 39c; New York 39½c; Boston 40½c. In Detroit butter sells for 42@48c.

CHEESE

Cheese prices declined last week in line with lower country costs. The receipts continue large, a heavy production is expected and demand is slackening. Buying was confined very largely to small lots and even at the lower prices, concessions were necessary to interest buyers.

APPLES

The total apple crop is estimated at practically the same as a year ago but the forecast of a commercial crop of 32,000,000 barrels is 2,000,000 barrels less than the final estimate for 1923.

PEACHES

Carlot shipments of peaches more than doubled last week and prices have declined with prospects of further weakness as the large shipments arrive at consuming centers. Georgia Carmens are bringing \$1.50 per bushel and six-basket carrier in city markets. The peach crop is among the largest ever produced, the July forecast being 54,000,000 bushels, or eight million bushels more than were produced last year.

POTATOES

The July 1 forecast of the white potato crop was 373,000,000 bushels, a reduction of 39,000,000 bushels, or practically ten per cent from last year's harvest. The sweet potato forecast is 6,000,000 bushels less than last year. Potato prices have weakened in the last few days. It will not be surprising to see a further decline as producing sections have loaded an exceptionally large number of cars during the last week. It is possible that the total for the week will be the largest on record for this season of the year. In addition, home-grown stock in the vicinity of the large consuming centers is becoming more abundant. Some let-up in the movement may occur soon as shipments generally are lighter late in July and early in August.

GRAND RAPIDS

Cherries and red raspberries replaced strawberries as the leading commodities on the Grand Rapids market early this week. These fruits crowded to the front as the strawberry harvest drew to a close, marking one of the most disastrous seasons in the history of the straw fruit. Prices as follows: Cherries, sour \$1@1.15 a 16-qt. case; sweet, black \$2@3 case; yellow and white sweets \$1.50@2 case; red raspberries \$5@6 per 24-pt. case; strawberries \$1@2 case; gooseberries \$1.50@1.75 case; currants \$2@2.50 a case; new potatoes \$2 bu; wax beans \$5@6 bu; peas \$2@3 bu; hothouse tomatoes \$1.25@1.40 per 7-lb. basket; head lettuce 50@75c bu; radishes 15@20c dozen; celery 20@65c dozen; cucumbers \$1.25@1.40 dozen; beets 20@25c dozen; carrots 20c dozen; turnips 40c dozen; wheat \$1.05 bu; beans \$4.15 cwt; corn \$1.10 bu; eggs 23c dozen; poultry, steady; broilers 18@30c lb; fowls 15@22c lb.

DETROIT CITY MARKET

Many growers are about through picking strawberries, and the supply was only moderate. They were cleaned up at an advance of 25@50c per case. Cherries were in fair supply but the demand was light and most sold at \$2.75@3 per case. Currants and gooseberries moved slowly, and red raspberries sold at retail only. Tomatoes sold readily at \$3.75@4 per basket. Green and wax beans cleaned up quickly at \$5@6 a bushel. Asparagus and good cauliflower had an easy sale, while the movement on beets and carrots was fair. Cabbage and green peas moved slowly at lower prices. Celery was an easy seller. The demand for spinach was good, but for other greens quite slow. Radishes and green onions were in moderate demand. A few hothouse cucumbers brought \$1.50 a dozen. The first long green peppers sold for \$10 a bushel. Eggs, wholesale 30@33c; retail 35@40c; old hens, wholesale 26c lb; retain 28@30c; broilers, retail 35@45c; ducks, retail 35c; veal 16c.

Live Stock Market Service

Monday, July 14.

DETROIT

Cattle.

Receipts 733. Market on the good grades steady; others slow.

Good to choice yearlings \$ 8.50@ 9.75
Best heavy steers .. 8.50@ 9.00
Handyweight butchers .. 7.50@ 8.00
Mixed steers and heifers .. 7.25@ 8.00
Handy light butchers.... 6.25@ 6.75
Light butchers .. 5.00@ 6.00
Best cows .. 5.00@ 6.00
Butcher cows .. 4.00@ 4.75
Cutters .. 3.00@ 3.50
Canners .. 2.50@ 2.75
Choice bulls .. 5.50@ 6.00
Bologna bulls .. 4.50@ 5.25
Stock bulls .. 4.00@ 4.50
Feeders .. 5.50@ 7.00
Stockers .. 4.50@ 7.00
Milkers .. \$45.00@85.00

Veal Calves.

Receipts 1,106. Market \$1 lower.
Best .. \$11.50@12.50
Culls and heavies .. 4.00@11.00

Sheep and Lambs.

Receipts 560. Market steady.
Best spring lambs .. \$14.50@15.00
Fair .. 11.00@12.50
Light to common .. 7.00@ 8.50
Fair to good sheep .. 5.00@ 6.00
Culls and common .. 1.00@ 4.00

Hogs.

Receipts 1,932. Market steady to 10c lower.
Mixed and heavy-yorkers \$ 7.60@ 7.70
Pigs .. 6.50
Stags .. 4.00@ 4.50
Roughs .. 6.10

CHICAGO

Hogs.

Receipts 96,000. Market moderately active and 15@25c lower, mostly off 20c. Packing sows, killing pigs and lower grades show minimum decline. All interests pay \$7.50; tops choice weighty butchers, good at \$2.50@3.25; butchers \$7.45@7.50; good 160 to 225 lbs. average \$7.25@7.40; better 140 to 150-lb. kind \$6.75@7.10; packing sows \$6.65@6.90; good strong weight slaughter pigs \$6.25@6.50; best record for July.

Cattle.

Receipts 24,000. Market on beef steers steady to 15c lower. Better grades are scarce; yearlings fairly active, steady; in-between grades of fat cows lower, others about steady; active demand for good beef heifers; early tops long yearlings at \$10.40; some weighty steers sell at \$11; vealers are steady to 25c lower; market \$10.25@10.75; few at \$11 to packers.

Sheep and Lambs.

Receipts 13,000. Market is active. Killing lambs around 25c higher; early bulk fed native lambs \$13.25@13.40; fat native lambs \$14@14.15; sorting moderate; culls \$9@10; sheep steady to strong; fat handy weight ewes at \$6.25; breeding ewes \$6.50; early sales of fat lambs steady; few heavy feeding lambs steady; few heavy feeders at \$11.70.

POWER and SPEED of Two Motors in JUMBO Equipped FORDS



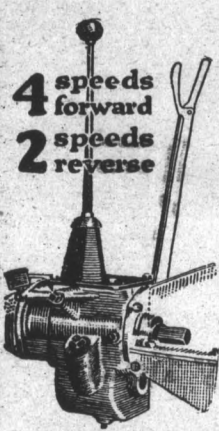
**JUMBO actually
DOUBLES THE
PULLING POWER.** A Power and
Speed for every road or hauling con-
dition. Special heat treated gears
make it virtually unbreakable. The
JUMBO is ABSOLUTELY SAFE
because it cannot be placed or left in
neutral, thus both planetary and
emergency brakes are always effective.
Practically eliminates planetary
band replacement.

See Your Nearest FORD DEALER

Distributed by

Cumings Bros.
Detroit and Flint Mich.

Shadbolt & Boyd Iron Co.
Milwaukee, Wis.



**\$75
FORD
Ton Truck
Model
Complete**

**\$6750
FORD
Passenger
Car
Model
Complete**

**JUMBO
for FORDS
POWER
SPEED
TRANSMISSIONS**

Threshing Days Coming Cut Down the Cost of Harvest

COMPLETE THRESHING OUTFIT COMPLETE SILO FILLING OUTFIT

Consisting of 40 H. P. Case Traction engine with canopy and contractors' Fuel Bunkers. 28x50 Case thresher with self-feeder, wind stacker, grain weigher and mechanical oiler. Steel water tank complete. One Type S. Wilders-Strong, Silo Filler complete, complete set of Belts.

**Practically New and in Perfect
Condition. Price Cut in
Two for the Early Buyer**

F. W. CRAFT,
12-243 General Motors Bldg., Detroit

BE SURE IT'S GENUINE GRIMM ALFALFA

Buy from the introducer, certificate of genuineness with every purchase. Plan now to increase your 1925 profits by making room in your farm for this big money crop. Plant this hardy alfalfa after winter wheat or rye is harvested. Lyman's Genuine Grimm Alfalfa shipped in sealed sacks. Write

A. B. LYMAN, Introducer, Excelsior, Minn.
The Home of Grimm Alfalfa.

Ship Your **Hay and Grain** to the OLD RELIABLE HOUSE.
Geo. E. ROGERS & Co., Pittsburgh, Pa.

LEARN AUCTIONEERING

at World's Original and Greatest School. Become independent with no capital invested. Write today for free catalog coming term. Jones Nat'l School of Auctioneering, 28 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

COUNTY CROP REPORTS.

Ontonagon Co., July 10.—Outside of the hay crop on old meadows, crops here are generally good. We are having plenty of rain. Lots of men are now available for work. So far there has been very little trouble from diseases and insects. Barley, oats and wheat promise a fair crop. Potatoes also have made a good start. Eggs bring 26c; butter 40c.—F. F.

Alpena Co., July 9.—The hay crop in this section is good, while other crops are fair to good. Fruit was damaged a little by frost in the spring. Wheat \$1 bu; oats 70c; barley 80c; old potatoes 50c; butter-fat 40c; eggs 25c; wool 30c; cattle 5c; lambs 6c; corn \$1.05. Pigs are scarce.—J. B. L.

Huron Co., July 9.—Corn and late potatoes are backward. Fruit is very promising; strawberries are bringing 15c. There is a large crop of cherries which are now ripening. Thus far there is little complaint from diseases and insects. Farmers are getting along with the minimum of help. Eggs are 22c; butter 55c; very little wool is being marketed here.—A. W. C.

Gladwin Co., July 8.—Beans and potatoes are promising, while corn, fruit and sugar beets are only fair. There has been too much rain for haying. Beans bring \$4.20 per cwt; eggs 24c; butter 29@40c; poultry 18c; wool 30c.—L. A. C.

VETERINARY.

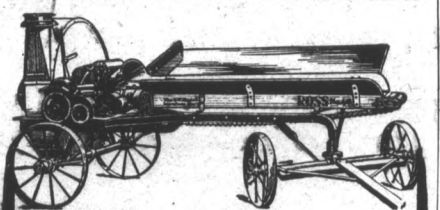
Weak Heart.—My horse has a good appetite, plenty of ambition, seems to be healthy, but pants and breathes too fast. I am hauling wood to town. The neighbors say I overworked him last summer. What can I do for him? W. R. W., Marshall, Mich.—Give him thirty drops of fluid extract of nux vomica at a dose three or four times a day. He will be made more comfortable, if fed grain and roots instead of much bulky fodder. Don't overload or drive too fast.

Itchy Skin.—Have commenced to work four-year-old colt, and when perspiring the skin on upper part of neck itches enough to make him toss, head up and down. H. P., Winters, Mich.—Dissolve quarter-pound of acetate of lead in one gallon of water and apply to itchy parts three times a day. Do not neglect to groom him twice daily.

Failure to Come in Heat.—I have a Holstein cow six years old which has not been in heat during the past twelve months. H. C., Sandusky, Mich.—Give her one dram of ground nux vomica, one dram of ground capsicum and one-half ounce of powdered licorice in feed three times a day.

Sore Teats.—Occasionally, one of my cows is troubled with large sores on her teats. H. N., Dearborn, Mich.—Apply equal parts of oxide of zinc and boric acid to sores twice daily. Occasionally, paint sore with tincture of iodine.

Orphan Colt.—My brood mare died two days after she foaled. We are raising colt on cows' milk. At first its bowels acted too freely, but are now costive. Have been giving it some castor oil and cascara. We feed it milk from same cow. It seems to be poor and weak in its hind legs. Mrs. E. C. P., Henrietta, Mich.—The feeding utensils must be kept clean, select rich cows' milk, add a little sugar and about one-third clean water; also add some lime water. The milk should be warmed to blood heat for each feeding. Solid food, such as oatmeal, crushed oats, bran, and a little oil meal should be fed as soon as the colt will take it. Mixing a raw egg with the milk is considered good practice.



WRITE for new low prices on the

Ross Ensilage Cutter
You'll quickly see why it will pay you to own your own machine instead of depending on some one else.

**Easy Terms—Settlement
After Trial**

Freedom from defects guaranteed for entire life of machine!

Boiler Plate Steel Blower—Adjustable Bearings—Positive Knife Adjustment. Operates at low speed. Powerful and smooth-running.

74 years experience backs your choice when you buy the sturdy, dependable Ross. Write for full details—catalog, prices, easy terms.

E. W. ROSS ENSILAGE CUTTER CO.

Dept. 227 Springfield, Ohio
Successors to The E. W. Ross Co., Est. 1850

HUCKLEBERRY BASKETS

Standard quart waxlined paper berry baskets are the best for huckleberries. They have tight corners, resist moisture, and are neat and clean. Prices are as follows, by freight or express f. o. b. cars Lansing:

600 Waxlined paper baskets.....\$ 4.15
1000 Waxlined paper baskets..... 6.25
5000 Waxlined paper baskets..... 30.00

Special prices in larger quantities to dealers or those running markets.

We offer 16-qt. crates for the above baskets as follows, f. o. b. cars Lansing:

10 16-qt. crates K. D.....\$ 2.10
25 16-qt. crates K. D..... 5.00
50 16-qt. crates K. D..... 9.50
100 16-qt. crates K. D..... 18.00

SPECIAL—We will send sample package of 200 waxlined paper berry baskets, postpaid for \$1.75.

M. H. HUNT & SON,
Box 525, Lansing, Mich.

CATTLE

15 Cows, 4 bulls from R. of M. Cows. Chance to select from herd of 70. Some fresh, others bred for fall freshening. Colon C. Lillie, Coopersville, Mich.

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

BIDWELL SHORTHORNS Revolution Jr. 573938 heads accredited herd

28917. Now offering 2 January roan bull calves of exceptional merit, reasonably priced. MIDWELL STOCK FARM, Box D, Tecumseh, Mich.

Real Milking Shorthorns As I have sold my entire herd of cattle, 35 head of hand-milked cows, pair fed calves and young heifers. CHAS. A. BRAY, Okemos, Mich.

FOR SALE

A few choice young Shorthorn bulls. Write for delivered prices. M. B. PETERS & SON, Elsie, Mich.

For Sale Cheap four Shorthorn cows and one herd bull. L. S. BABBITT, Williamston, Michigan.

RED POLLED CATTLE M Buy from Michigan's Leading Herd. Owned by L. WESTBROOK BROS., Ionia, Mich. K

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements being 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

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

MISCELLANEOUS

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 bundle tying attachment. Testimonials and catalog FREE showing picture of Harvester. Process Harvester Co., Salina, Kansas.

FOR SALE—Complete outfit for distilling Spearmint and Peppermint. Boiler 60x14, Still, etc., also plant roots. For particulars address Mrs. J. H. Milligan, Factories Bldg., Toledo, Ohio.

CULL BEANS \$23 ton, sacks included, f. o. b. Port Huron. Port Huron Storage & Bean Co., Port Huron, Mich.

FOR SALE—Port Huron Engine, \$400. H. Rush, Elkhart, Ind.

FEDERAL TRUCK, 3-Ton Hoist Body. 4851 Helen Ave., Detroit, Mich.

REAL ESTATE

325 ACRE MONEY-MAKING FARM—Fully Equipped. Neighboring farms valued to \$100 acre; great crops corn, alfalfa, wheat, etc.; excellent markets, stores, amusements; level black loam, spring-watered pasture, woven-wire fences; timber; good oak-shaded house, large barn, smoke and poultry houses. Team, cows, poultry, hogs; machinery, crops all go to quick buyer. Aged owner's sacrifice price \$5,700, part cash. Details page 42 illus. Bargain Catalog money-making farms. Copy free. Strout Farm Agency, 205BC Kresge Bldg., Detroit, Mich.

\$1000 GETS STREAMSIDE FARM—40 Acres and Equipment. Buildings worth price asked and you get valuable gravel pit, cow, poultry, machinery, growing crops; finest city markets, all village conveniences, near lake; creek-watered pasture, excellent fences, woodland, apple orchard, pears, plums, cherries, peaches, small fruits; beautifully shaded 2-story 6-room house, porches, furnace; barns. Because of age will sacrifice for \$2,500, only \$1,000 needed. W. R. Jones, Balcory Block, Holly, Mich.

FOR SALE—40 acre estate, 5 miles east of Charlotte, Eaton County, Michigan. Fine clay loam land, nice orchard, terms for price of buildings. M. E. Depew, 23 Third St., Pontiac, Michigan.

FIRST-CLASS grazing or farming land for sale at reasonable prices. Geo. R. Emerick, Harrisville, Mich.

FOR SALE One cow, two heifers, and one young bull of best beef breeding. Young cattle sired by Revolution Jr. Cheap if taken soon. Also a few young cows of strong milking inheritance. BELAND & BELAND, Tecumseh, Mich.

YEARLING Brown Swiss Bull for sale. Also Poland China Fall Boars. A. A. FELDKAMP, Manchester, Mich.

HOGS

DUROC fall and spring boars of the best breeding and quality, at prices to sell. Fall pigs at bargain prices. W. C. Taylor, Milan, Mich.

DUROCS We have Sons and Gr. Sons of International Winner. Buy your fall boar now and save money. Let us tell you about our Sensation Durocs. J. M. WILLIAMS, No. Adams, Mich.

Chester White Boars Size, type, quality and price will please you. Registered free. F. W. ALEXANDER, Vassar, Mich.

Francisco Farm Poland Chinas

Our spring pigs are the best ever. 75 head to choose from. Outstanding herd boars at \$25; pairs \$40; trios, \$50. \$5.00 off if you come and get them. P. P. POPE, R. 3, Mt. Pleasant, Mich.

Fall Pigs either sex, by the great Boar, The Wolverine. Priced reasonable. Best of dams. W. E. Livingston, Parma, Mich.

DUROCS Stock for sale at all times. Write for breeding and prices. F. J. Drott, Monroe, Mich., R. No. 1.

FOR SALE A Fine Bunch of Duroc Pigs, the big, long kind. Registered and immune. Price \$10 each, either sex. Write T. A. LAMB & SON, Cassopolis, Mich.

O. I. C. & Chester White Big type with QUALITY. All the Grand Champion, O. I. C.'s at Michigan State Fair, 1922 & 1923, were bred at Newman's Stock Farm. Also a few Choice Spring Pigs Cheap. Newman's Stock Farm, Marlette, Mich.

O. I. C.'s Spring pigs, Sired by "Giant Boy" and "Jumbo Bell Boy", also Brown Swiss bulls. MILO H. PETERSON, R. 2, Ionia, Mich.

Hampshire Bred Gilts and Boar Pigs, not akin. 12th year. Write your wants. John W. Snyder, R. 4, St. Johns, Mich.

SHEEP

LAMBS --SHEEP--LAMBS

Feeder sheep or lambs for Sept. and October delivery, direct from our Montana and Dakota ranges to your home station. We pay the freight. Ask for our delivered prices. Write NORTHWESTERN SHEEP CO., Hettinger, N. Dakota.

400 BREEDING EWES

For sale in lots of 50 or more. Also 300 yearlings. ALMOND B. CHAPMAN & SON, South Rockwood, Mich.

TOBACCO

HOMESPUN TOBACCO—Chewing, five pounds, \$1.25; ten, \$2; smoking, five pounds, \$1.25; ten, \$2; pipe tobacco, per pound received. Tobacco Guaranteed. Co-operative Farmers, Paducah, Kentucky.

PET STOCK

BLOODED DOGS—White Collie pups, also white Collie and German police crossed. A real cattle dog. Males \$8. Females \$5. Spayed bitches \$10. Adva Buerge, Middleton, Mich.

GERMAN SHEPHERD—Airedales, Collies, Old English Shepherd dogs, puppies. 10c Illustrated instructive list. W. R. Watson, Box 35, Macon, Mo.

FOR SALE—Full blood Flemish Giant Rabbits, \$2 each. Leonard Norton, Three Rivers, Mich.

FERRITS—New yearling ratters, \$3.50 each while they last.—Thos. Sellars, New London, Ohio.

BABY CHICKS

BABY CHICKS ready each Monday. Last hatch July 21st. White Wyandottes, \$12 per 100; Barred Rocks and S. C. or R. C. Reds, \$11 per 100; Anconas, White or Brown Leghorns, \$8.00 per 100; Heavy Mix, \$9.00 per 100; Light Mix, \$7.00 per 100. Rocks and Reds all blood-tested. H. H. Pierce, Jerome, Mich.

PURE-BRED CHICKS—reduced prices. Barred Rocks, White Wyandottes, Reds, Buff Orpingtons, Light Brahmans, 10c; 50, \$5.50. Postpaid, 100% delivery. Member International Chick Ass'n. Earlville Hatchery, Earlville, Illinois.

QUALITY CHICKS—Postpaid, Leghorns, 10c. Rocks, Reds, Orpingtons, Wyandottes, Anconas, 12c. Lt. Brahmans, 15c. Assorted, 7c. Catalog gives quantity price. Missouri Poultry Farms, Columbia, Mo.

POULTRY

S. C. BUFF LEGHORN Cockerels and Pullets. Willard Webster, Bath, Mich.

HELP WANTED

POSITION WANTED—Superintendent of large estate wants position as such in Michigan. Am a working manager, get results. Can come on short notice. Will buy farm if I can get proper terms. Best of references as to character. Single, 33 years of age, present place 11 years. Address, H. R. Franzen, Ephrata, Pennsylvania, R. 4.

SALESMAN WANTED to sell high-grade Roof Coating, etc., that everybody uses. Prices reasonable. Orders come easy. Work your home county. We pay you every week. Convenient shipping points. Address Globe Refining Co., Cleveland, Ohio.

WANTED—single man for farm work. Box 1225, Michigan Farmer.

**TRY a Michigan Farmer
Classified Liner. They
bring results.**



Polarine

THE PERFECT MOTOR OIL

Made in Five Grades

is Checked Step by Step

From the selection of the crude, through the intricate processes of manufacture, to the final behavior of the oil under every day field conditions, Polarine is checked and re-checked at every step.

Every gallon must conform to rigid requirements laid down by the engineers who developed it.

Only by safeguarding it in this thorough manner can the Standard Oil Company (Indiana) give its unqualified guarantee that you will get what you pay for.

If you will use the grade of Polarine recommended for your tractor in the chart at the left, you will get perfect lubrication—you will use less fuel—you will save repairs—you will get all the power your engine can develop—you will add to the life of your tractor.

For Polarine lubricates the remotest frictional parts—it maintains an unbroken film of oil to protect the bearing surfaces—it holds its body under all working conditions.

Follow the chart at the left and give your tractor accurate, scientific lubrication.

Drain your crankcase frequently and refill with the correct grade of Polarine. It pays!

Tractor Chart of Recommendations

Trade Name	Motor Oil	Trade Name	Motor Oil
Adaptable	H	Monarch	H
Allie-Chalmers, 6-12	H	Nelson	S. H
Allie-Chalmers, Other Models	S. H	Oil-Gas	E. H
All Work	S. H	Peoria	E. H
Andrews-Kincaid	E. H	Pioneer	E. H
Appleton	S. H	Reed	S. H
Aultman-Taylor, 15-30	S. H	Rix	S. H
Aultman-Taylor, Other Models	S. H	Rumley, Oil Pull, 12-20, 16-30	S. H
Automotive	H	and 20-40	E. H
Avery, C. & Road Racer	H	Rumley, Other Models	E. H
Avery, Tractor Runner	S. H	Russell	S. H
Avery, Other Models	E. H	Samson	S. H
Bates Steel Mule, Midwest	S. H	Shawnee	H
Motor	S. H	Square Turn	E. H
Bates, Other Models	H	Stinson	S. H
Bear	S. H	Titan	S. H
Best Tractor	E. H	Topp-Stewart	S. H
Big Farmer	E. H	Toro	H
Case, 10-18, 12-20 and 15-27	H	Townsend	E. H
Case, 22-40	S. H	Traylor	H
Case, Other Models	E. H	Trundar	S. H
Cletrac, F	H	Twin City, 12-20 and 20-35	S. H
Cletrac, W	S. H	Twin City, Other Models	E. H
Coleman	E. H	Uncle Sam	S. H
Dart	S. H	Wallis	S. H
Eagle	S. H	Waterloo Boy	S. H
E-B	S. H	Wetmore	S. H
Ellwood	H	Wisconsin	S. H
Farm Horse	E. H		
Fitch	E. H		
Flour City, Junior and 20-35	S. H		
Flour City, Other Models	E. H		
Fordson	S. H		
Fox	S. H		
Frick	S. H		
Gray	S. H		
Hart-Par	E. H		
Heider	S. H		
Holt, 2-Ton	H		
Holt, Other Models	E. H		
Huber	S. H		
Indiana	H		
International	H		
J. T.	E. H		
Klumb	E. H		
La Crosse	E. H		
Leason	S. H		
Leonard	S. H		
Liberty	S. H		
Lincoln	S. H		
Little Giant	S. H		
McCormick-Deering	H		
Minneapolis, 12-25 and 17-30	S. H		
Minneapolis, Other Models	E. H		
Mogul	S. H		
Moline	S. H		

KEY

L.—Polarine Light
M.—Polarine Medium
H.—Polarine Heavy
S.H.—Polarine Special Heavy
E.H.—Polarine Extra Heavy

N. B.—For recommendations of grades of Polarine to use in automobiles and trucks consult chart at any Standard Oil Company (Indiana) station.



Standard Oil Company

910 S. Michigan Ave. (Indiana)

Chicago, Ill.

3489B