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FIVE YEARS \$3.00





FRESH from the Spring overhauling

How to keep that "young"
feeling in your engines

No wonder your automobile, motor-truck, and tractor feel "young" again after a spring overhauling.

Carbon is out. Valves are ground. Spark plugs, wiring, hose connection, fan belt, all have been inspected. Nuts are tightened. The chassis has been freshly lubricated from front to rear spring shackles.

And instead of groans and squeaks you have quiet. Instead of that "tired feeling" you have power.

Now for the busy season

After the spring overhauling, the question arises "How long can I keep that welcome feeling of full power?" You won't have any too much time from now on for engine repairs. Naturally you will want to avoid them.

On the farm, Gargoyle Mobiloil has become the most popular high-grade oil through its ability to keep farm automobiles and tractors at full working efficiency. Gargoyle Mobiloil costs a great deal less by the year, in spite of the fact that the price is a few cents higher by the gallon. That is why farmers who have a keen eye for economy are so enthusiastic over Mobiloil.



Mobiloil

Make the chart your guide

Containers for your Home Garage

While Mobiloil is sold by the quart from bulk and in one-gallon cans, the larger size containers are the most popular among farmers. You can obtain Mobiloil in 5-gallon cans and in 15-, 30- and 55-gallon steel drums, which are equipped with convenient leak-proof faucets.

Gargoyle Mobiloil is the most widely used of all oils. You will easily find at least one nearby garage or supply store where you can obtain it. In buying, be sure to secure the grade or grades specifically recommended for your own automotive equipment. In case your car, motor truck, or tractor is not specified on the partial Chart shown here, the dealer can easily tell you the correct grade by consulting the Complete Chart of Recommendations which he hangs on his wall.

Tractor Lubrication

The correct engine lubricant for the Fordson Tractor is Gargoyle Mobiloil "BB" in summer and Gargoyle Mobiloil "A" in winter. The correct oil for all other tractors is specified in our Chart. Ask for it at your dealer's.

Chart of Recommendations

(Abbreviated Edition)

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

A means Gargoyle Mobiloil "A"
How to B means Gargoyle Mobiloil "B"
Read the BB means Gargoyle Mobiloil "BB"
Chart: 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 may be experienced.

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

NAMES OF AUTOMOBILES AND MOTOR TRUCKS	1924		1923		1922		1921		1920	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Amer. La France (Mod. 19)	A	A	A	A	A	A	A	A	A	A
All Other Models	A	A	A	A	A	A	A	A	A	A
American Six	A	A	A	A	A	A	A	A	A	A
Anderson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Apperson (6 cyl.)	A	A	A	A	A	A	A	A	A	A
Atlas (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Auburn (Mod. 6-63)	A	A	A	A	A	A	A	A	A	A
All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Autocar	A	A	A	A	A	A	A	A	A	A
Buick	A	A	A	A	A	A	A	A	A	A
Cadillac	A	A	A	A	A	A	A	A	A	A
Case	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chalmers	A	A	A	A	A	A	A	A	A	A
Chandler Six	A	A	A	A	A	A	A	A	A	A
Chrysler Cab	A	A	A	A	A	A	A	A	A	A
Chevrolet (Mod. FB & T)	A	A	A	A	A	A	A	A	A	A
" (Superior)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. 490)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Cleveland	A	A	A	A	A	A	A	A	A	A
Colt	A	A	A	A	A	A	A	A	A	A
Col'bis (Det.) (Cont. Eng.)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
All Other Models	A	A	A	A	A	A	A	A	A	A
Cunningham	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Davis	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Dodge Brothers	A	A	A	A	A	A	A	A	A	A
Dorris (6 cyl.)	A	A	A	A	A	A	A	A	A	A
All Other Models	A	A	A	A	A	A	A	A	A	A
Dort	A	A	A	A	A	A	A	A	A	A
Duesenberg	A	A	A	A	A	A	A	A	A	A
Elcar (8 cyl.)	A	A	A	A	A	A	A	A	A	A
" (6 cyl.)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Federal (Mod. X-2)	A	A	A	A	A	A	A	A	A	A
All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Flint	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Ford	E	E	E	E	E	E	E	E	E	E
Four Wheel Drive (FWD)	A	A	A	A	A	A	A	A	A	A
Franklin	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB
Gardner	A	A	A	A	A	A	A	A	A	A
Garford (14-15 ton)	A	A	A	A	A	A	A	A	A	A
All Other Models	A	A	A	A	A	A	A	A	A	A
G. M. C. (Cont. Eng.)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
All Other Models	B	B	B	B	B	B	B	B	B	B
Graham Brothers	A	A	A	A	A	A	A	A	A	A
Gray	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Hanson Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Haynes (6 cyl.)	A	A	A	A	A	A	A	A	A	A
" (12 cyl.)	A	A	A	A	A	A	A	A	A	A
H. C. S.	A	A	A	A	A	A	A	A	A	A
Hudson Super Six	A	A	A	A	A	A	A	A	A	A
Hupmobile	A	A	A	A	A	A	A	A	A	A
International	A	A	A	A	A	A	A	A	A	A
Jewett	A	A	A	A	A	A	A	A	A	A
Jordan	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Kelly-Springfield	A	A	A	A	A	A	A	A	A	A
Kiesel	A	A	A	A	A	A	A	A	A	A
Kline	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Lafayette	A	A	A	A	A	A	A	A	A	A
Lenington (Cont. Eng.)	A	A	A	A	A	A	A	A	A	A
All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Liberty	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Lincoln	A	A	A	A	A	A	A	A	A	A
Loconobile	A	A	A	A	A	A	A	A	A	A
Maccar (14 ton L-2)	A	A	A	A	A	A	A	A	A	A
" (2 ton)	A	A	A	A	A	A	A	A	A	A
" (3 ton H-2)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (14, 24 & 34 ton)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (4 ton M-3)	A	A	A	A	A	A	A	A	A	A
All Other Models	A	A	A	A	A	A	A	A	A	A
Mack	A	A	A	A	A	A	A	A	A	A
Marmon	A	A	A	A	A	A	A	A	A	A
Mason	A	A	A	A	A	A	A	A	A	A
Maxwell	A	A	A	A	A	A	A	A	A	A
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
McFarlan	A	A	A	A	A	A	A	A	A	A
McLaughlin Buick (Can.)	A	A	A	A	A	A	A	A	A	A
Mercer	A	A	A	A	A	A	A	A	A	A
" (Com'l) (Quad.)	A	A	A	A	A	A	A	A	A	A
Nash (Com'l) (1 & 2 ton)	A	A	A	A	A	A	A	A	A	A
All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
National (Ind.) (Mod. 6-31)	A	A	A	A	A	A	A	A	A	A
" (Mod. 6-51)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
All Other Models	A	A	A	A	A	A	A	A	A	A
Oakland	A	A	A	A	A	A	A	A	A	A
Oldsmobile (6 cyl.)	A	A	A	A	A	A	A	A	A	A
" (Mod. 30)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
All Other Models	A	A	A	A	A	A	A	A	A	A
Overland	A	A	A	A	A	A	A	A	A	A
Packard Eight	A	A	A	A	A	A	A	A	A	A
All Other Models	A	A	A	A	A	A	A	A	A	A
Paige (Cont. Eng.)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Com'l)	A	A	A	A	A	A	A	A	A	A
All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Peerless (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Pennant Taxi-Cab	A	A	A	A	A	A	A	A	A	A
Pierce Arrow (2 ton)	A	A	A	A	A	A	A	A	A	A
All Other Models	A	A	A	A	A	A	A	A	A	A
Premier	A	A	A	A	A	A	A	A	A	A
Premier Taxi-Cab	A	A	A	A	A	A	A	A	A	A
Princeton	A	A	A	A	A	A	A	A	A	A
R & V Knight	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB
Reo	A	A	A	A	A	A	A	A	A	A
Republic (14 ton)	A	A	A	A	A	A	A	A	A	A
" (2 1/2 ton Mod. 19W)	A	A	A	A	A	A	A	A	A	A
All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Rickenbacker	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Rolls Royce	A	A	A	A	A	A	A	A	A	A
Star	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Stearns Knight	B	B	B	B	B	B	B	B	B	B
Stephens Six	A	A	A	A	A	A	A	A	A	A
Stewart (N.Y.) (4 ton)	A	A	A	A	A	A	A	A	A	A
" (1 ton)	A	A	A	A	A	A	A	A	A	A
" (Mod. 7X & 10X)	A	A	A	A	A	A	A	A	A	A
All Other Models	A	A	A	A	A	A	A	A	A	A
Studebaker	A	A	A	A	A	A	A	A	A	A
Stutz (6 cyl.)	A	A	A	A	A	A	A	A	A	A
" (8 cyl.)	A	A	A	A	A	A	A	A	A	A
Vellie (Cont. Eng.)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
All Other Models	A	A	A	A	A	A	A	A	A	A
Westcott (Mod. D-48)	A	A	A	A	A	A	A	A	A	A
" (Mod. 60)	A	A	A	A	A	A	A	A	A	A
All Other Models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
White (Mod. 15 & 20)	A	A	A	A	A	A	A	A	A	A
All Other Models	A	A	A	A	A	A	A	A	A	A
Willis Knight	B	B	B	B	B	B	B	B	B	B
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Yellow Cab	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

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)
Philadelphia
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VACUUM OIL COMPANY

DEVOTED
TO
MICHIGAN

VOLUME CLXII

MICHIGAN FARMER

AND
LIVE STOCK
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A Practical Journal for the Rural Family

MICHIGAN SECTION THE CAPPER FARM PRESS

QUALITY
RELIABILITY
SERVICE

NUMBER THIRTEEN

Ferreting the Secrets of Alfalfa

Slants On the Growing of This Crop Found from Years of Experience

By Jason Woodman.

AS a rule the young alfalfa plants of a seeding on land that has never grown the crop will be several weeks old and five or six inches high before nodules begin to develop on the roots. Prior to this bacterial development the little plants live on the available nitrogen in the soil.

Experience has taught us that the nitrogen supply in our sandy loam generally is not sufficient to grow a grain crop and start a young "first seeding" of alfalfa at the same time, therefore, the first seeding is put in alone. As the season advances, the nodule forming bacteria supplied by the culture multiply to an amazing degree and, by the end of the summer, the soil of the new alfalfa field literally swarms with them.

When the alfalfa sod finally is plowed up for other crops, an infinite number of bacteria remain in the soil, alive but dormant. If, after a rotation of other crops, the land is again seeded to alfalfa as soon as the first little rootlets begin to penetrate the soil, they come in contact with these nitrogen fixing agencies which immediately awake into active life and nodules begin to form on the roots.

I have found them many times on the roots of second seedings when the plants were just beginning to unfold their first true leaves and when the roots were less than two inches in length. From the beginning of their growth the little plants are able to get their supply of all essential nitrogen from the air in the soil.

So, we make our second and subsequent seedings of alfalfa with wheat, rye, or oats and the little alfalfa plants, freed from the competition of the young grain crop in getting its supply of nitrogen, grow vigorously from the start. When the grain crop is harvested the ground is carpeted with a thrifty stand of alfalfa, which the farmer knows will be there to produce a hay crop the year following, for drouth will not kill the young seedings.

I have seen second seeding of alfalfa put in at the end of a variety of rotations. Only a few of these seedings have been failures. In one case alfalfa and oats were sown during a period of warm, dry weather in March. The alfalfa came up and most of it

was heaved out by freezing weather the first part of April. In another case alfalfa sown on wheat failed to germinate, and I never have seen a good stand where alfalfa was sown on newly plowed ground.

On a farm not far from where I live, a medium to light sandy gravelly loam, the owner has practiced for several years the following rotation: Alfalfa sod with a good coat of manure planted to potatoes, followed the next year by corn, corn put in the silo, and about the first of October the field worked up with a spring tooth harrow and seeded to rye. Alfalfa was sown on the rye the spring following and thoroughly harrowed in. The potatoes have yielded from 250 to 300 bushels to the acre. The corn has grown large stalks and except one year of drouth has made at least fifty bushels of shelled corn to the acre. The rye yields have run from 20 to 25 bushels to the acre with a generous amount of straw for bedding. There has been considerable volunteer rye in the first cutting of hay, an objection in the eyes of some farmers, but what the stock did not consume made more bedding, an advantage.

Rye should not be sown too early where alfalfa is to be seeded the next spring. October first is early enough in southern Michigan. Alfalfa must

have sunshine and the rye should be small enough so that sunlight will reach the little alfalfa plant. On the heavier sandy loams wheat can be sown instead of rye. Last year we sowed alfalfa with oats put in after potatoes. I have seen this practiced on a number of farms. In all cases except one, perfect stands of alfalfa have been secured. The one exception was where oats and alfalfa were sown in March.

A six year rotation adapted to dairying and other forms of live stock farming, would be alfalfa sod for wheat followed by corn, oats, and alfalfa seeded with the oats. Hay and pasture three years. A reasonable amount of live stock is needed on the class of soils under discussion, and four things are especially desirable: plenty of hay, good pasture, corn for the silo, and plenty of straw for bedding. An alfalfa sod turned over for wheat will grow more bushels to the acre on our sandy loams than clover ever produced even on new lands. It is true that more or less alfalfa will remain alive in spite of plow, disc and springtooth harrow, but the wheat will grow just the same. Corn planted after the wheat will produce a maximum yield. The following oat crop will not be heavy, but all things considered it is the best grain with which to seed alfalfa on the soils

referred to. If alfalfa is sown on rye or wheat it should be drilled or thoroughly harrowed in. Potato ground should not be plowed for oats and a corn stubble put to oats should be fall-plowed.

I have often been asked the question 'Can a field of wheat sown on an alfalfa sod be seeded back to alfalfa the next spring?' We tried that last year on a portion of such a wheat field. The alfalfa came up but was smothered out by the rank growth of wheat.

How often should we apply lime and how heavy should the second and subsequent applications be? Experience has not yet settled that question. We do know that the lime supply must be maintained. Probably it will be wise to apply from one to two tons to the acre with each six year rotation. The amount needed will vary with different types of sandy soils.

What about the use of commercial fertilizers? In some sections in this part of the state the application of phosphorus to sandy soils produces marked results. In other localities its effects are not so apparent. In my opinion it will pay to drill in phosphate with wheat on any of our sandy lands where the wheat is sown on a good alfalfa sod.

The supply of potash in most of our oak opening soils is sufficient to produce good yields, of ordinary farm crops. In the case of potatoes, however, we find that a generous application of potash is profitable. We know that we are depleting our soils of both of these essential and limited, mineral plant foods and that sooner or later we must replace them from sources outside of the farm, just as we already are doing in the matter of lime.

The most expensive element of plant food when purchased is nitrogen, but the farmer who uses alfalfa in rotation and keeps at least half his farm seeded will not find it necessary to buy nitrates of anyone else.

Will it pay the average farmer on the oak opening lands of southern Michigan to seed alfalfa over his whole farm and grow it in rotation as suggested in this article? It has paid and with proper farm and business management it will pay in the future whenever there is any profit anywhere in American agriculture.



Michigan Farmers Are Coming to Understand the Conditions Necessary to the Production of Good Yields of Alfalfa.

High-Powered Garden Seeds

Peculiar Conditions in Our State Offer Farmers Unusual Opportunities

Br Geo. E. Starr

MICHIGAN is peculiarly favored in many ways, not the least of which is in the large variety of crops which may be grown to advantage throughout a greater portion of the state.

We are acquainted with the possibilities of the state as a producer of high grade farm seeds, as well as certified seed potatoes. The reputation that our products have made each year at the International Hay and Grain Show has given us much favorable advertising, but I do not believe that many of us realize that for more than fifty years Michigan has had a very high rank as a producer of the seeds of garden vegetables. Not only do we produce large quantities of garden seeds,

but also our seeds are noted for being of very high quality.

In making our plans for the coming summer, it may be well worth while to consider the possibility of growing some vegetable seed crop, as a quick cash crop. There is quite a large list from which to make selection: Garden Beans, Sweet Corn, Cucumber, Melons, Onion, Peas, Pumpkin, Radish, Squash and Tomato.

Under conditions as they now exist, it will be necessary to get in touch with some seedsman and make a growing contract with him. Some of the largest and most reliable seed houses

are located in Michigan. By making a contract to grow a certain crop, we are assured of a market at a price which is guaranteed, thereby reducing the risk one may have of a falling market. Unless one has a contract he will find it difficult to dispose of a crop of garden seeds. The better class of seedsmen are particular as to the breeding and purity of the seeds which they offer for sale, and they hesitate to run the risk of securing inferior quality by purchasing seeds of unknown quality. As there is no other outlet for the crop of garden seeds except through some seedsman, it does

not pay to take any chances of loss, by neglecting to contract our product.

The seedsman will furnish pure, good, tested seed with which to grow the crop and at the end of the season they deduct from the crop an amount equal to the number of pounds of seed which they sent to the grower.

The culture of garden beans for seed is no more difficult than the growing of field varieties. In fact, there are a number of varieties of garden beans which by reason of their having a shorter growing period are even more certain to produce a crop.

Sweet corn demands a little more care in the curing of the seed than we are usually accustomed to give to our

(Continued on page 469.)

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Editors and Proprietors

3698 LaFayette Boulevard Detroit, Michigan

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NEW YORK OFFICE 120 W. 42nd St.

CHICAGO OFFICE 608 So. Dearborn St.

CLEVELAND OFFICE 1011-1013 Oregon Ave., N. E.

PHILADELPHIA OFFICE 261-263 South Third St.

ARTHUR CAPPER President

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CURRENT COMMENT

COOPERATION seems to be the order of the day. We hear much talk about what great things we hope to do when we get to the point where we can actually cooperate and stick together. But when we get to where we have, right in our midst and functioning all about us, one of the most, if not the most, successful cooperative organizations of modern times we hear comparatively little about it. Strange is it not? Have we gotten so used to being fed up on agitation and propaganda that we do not recognize the real thing when we see it?

We refer to the Federal Land Bank, the seventh district to which Michigan belongs, with headquarters at St. Paul, Minnesota. This organization has made very remarkable progress since its beginning seven years ago and the good that it has done for its members can scarcely be overestimated. There has been a comparatively small amount of publicity concerning it. It has spent little time tooting its own horn or proclaiming the great things it was going to do sometime, but it has been everlastingly doing them and is continually hustling to keep pace with its growth.

Perhaps you, Mr. Reader, have seen more publicity that was unfavorable than favorable to the land bank. But let not your heart be troubled, neither let it be afraid. Any really successful co-op is bound to have lots of enemies, and the most dangerous enemies are those who pass as friends. Turn back to the issue of Mar 8th and read the article on "The Progress of The Federal Land Bank" by the director representing Wisconsin and Michigan. If you have already read it, read it over again, it is worth the second reading.

For a Larger Farm Income

THE American farmer is at a great disadvantage because he purchases goods in a market that is amply protected to maintain our high standards of living, while he sells his products at prices set by the peons of Latin America and the peasants of Russia.

Relief can come to the farmer from two directions: Either by lowering the prices of non-agricultural products, or raising the prices at which farm products sell. The lowering of general prices is objectionable since it would, almost of a certainty, break down our whole financial and industrial struc-

ture, and thereby lower the standards of living, which ought to be maintained.

The alternative of advancing prices of farm products, remains. To advance these prices is the object of the McNary-Haugen bill now before Congress. Just how this bill would accomplish this end was recently described in this journal.

For the benefit of those who did not read the former story, we would say, briefly, that this measure provides for a government export agency set up and empowered to buy farm products at sufficiently high prices to give to the seller an exchange value equal to that enjoyed before the war. This agency would segregate the surplus over domestic needs and sell this surplus on world markets at best advantage. This surplus would be prevented from flowing back into the country through a protective tariff. The loss from the foreign sales would be distributed over the domestic sales through an equalization fund. The high domestic price would absorb the foreign loss and still leave the producer a profit much above the world market.

Through this agency, therefore, the American farmer would be able to purchase with his goods the same amount of machinery, lumber, furniture and other products as was possible before the war. In other words, the provisions of this bill are aimed to make the protective tariff as effective in agriculture as it now is in manufacturing.

Wall Street Objects

SINCE higher farm prices would increase the cost of living, and since also the stabilizing of prices for farm products would make certain types of trading in these products less attractive, it is natural that objections are being raised to the McNary-Haugen bill mentioned above. It is also natural that these objections be raised in our financial centers.

The Wall Street Journal, in particular, has a long list of criticisms. It states that the measure is a "price fixing scheme." This has been answered by stating that if this is a "price fixing scheme" it is the same type that other industries have been enjoying under practically all our protective tariff regimes.

This financial journal further cries, "Overproduction would be encouraged." But, since the farmer under this bill would have to stand the loss on all surplus sold abroad, his interests would lie in keeping production as near to domestic consumption as he possibly could.

Again, they hold, "it would force the farmers into one compulsory pool engineered by the government." But, practically speaking, we are now in one common pool engineered by the government when it comes to paying for the products of other industries. Why not give agriculture a similar chance?

Further, they say it would likely "disturb wheat futures," affect the "present system of marketing," and "put the government in the meat packing business." We confess that this measure might tend to discourage speculation by stabilizing prices; but that certainly would not work against legitimate marketing institutions. Nor would it be necessary to take work away from the packers, since they could be employed at processing and packing the surplus meat products held by the government for export.

The Wall Street Journal continues, "there would be no profit in such business." That is, we presume, no profit for Wall Street.

This further complaint comes from the same source: "The remedy is incomparably worse than the assumed disease." While our exporting financiers and others may have to "assume" that there is a disease, the farmers do not. It requires no imagination for the tillers of the soil to realize some-

thing is wrong. To them the "disease" is altogether too real.

Our worried financial journal has another offering to make on this bill. It says, "On the face it does look as if it would accomplish its purpose." If the McNary-Haugen bill will accomplish the purpose for which it was so carefully drafted, as Wall Street apparently believes it will, then we are for it. We are for it because in accomplishing that purpose it would bring justice where injustice now prevails.

The Upward Trend

THERE are trends in all lines of activities, in all investments and in all prices. Stocks and bonds go up and down, prices of food stuffs have their rise and fall, and land values, too, have their ups and downs. Real estate does not have the rapid fluctuations that other commodities have but they do have definite upward or downward trends.

Farm land values have been going down since the war bubble burst until about a year ago, according to bankers and real estate experts who have made a county wide survey. Then they steadied and are already showing signs of going up. Investment experts say that there is no better time than now to buy crop producing lands as the predictions are that the farming industry will make more advancement in 1925 and 1926 than it has made in ten years or longer.

Whether one looks at this matter from the standpoint of an investment expert or not, his own life's experience should make him realize that there has to be an "up" reaction to the long "down" that farming has experienced in the past few years.

For the one who wants to add to his acreage this is an opportune time. Also to him who may want to follow the wise course of bringing his present acreage to a more efficient production, there is that hopeful assurance that his efficient farming will bring him greater margins of profit in the future, because of increased prices and the lower overhead his efficiency will have brought. The forehanded man will increase his efficiency now that it may be at its maximum when the better times come.

Farming Makes Advancement

SO often we are told by those who like to tell us how to do things instead of doing them themselves, of what ought to be done in farming that we do not realize that anything has really been done.

The old colored gentleman in referring to progress said, "The world do move." Well, here is an indication that we can truthfully say that "Farming do move."

Plain, dry and uninteresting figures show that farmers are producing 20% more per man than they did before the war—the World War, not the Civil War. These same dry figures show that no other industry can equal this showing in increased efficiency.

History will reveal, we believe, that most big advancements or accomplishments have been made while overcoming of obstacles. So, may we not say that this great showing on the part of agriculture is due to the farmers' endeavors to work out their own salvation in the distressing period of depression through which it has just gone. Does it not indicate that in spite of the great newspaper publicity that farmers were seeking charity through legislative help, they were really on the job working out their own salvation like real men?

We are sure that all the average farmer seeks are fair economic conditions with better markets and cheaper transportation. He, himself, will use every means to keep the cost of production down, for it is to his selfish

interest to do so. The increased efficiency referred to above is an indication that he is really on the job in this respect.

The Common Lot

VERY few of us can be leaders. The ninety-and-nine of us must go every morning to our studies, to the kitchen, or to the barns and fields at the same humdrum tasks, with the same ruts, the same trials, the same temptations, the same aches and obstacles to overcome. And, with these common surroundings, we often wonder where the common person is to get his share of development, education and happiness.

But this great parade ground of life is my schoolmaster. Not in books, nor class room, but, in the every day task, do I get my education. That gives me the necessities, the indispensables of life; but I complain and call it slavery. In it, is every possibility to be more, to count for more, and to enjoy more of the essence of life; but I growl at my lot and call it drudgery.

This attitude toward common toil is, no doubt, the result of our general education. So, I am wondering if it is not time that we let up a little on urging all men to try and be what not more than one percent of us can possibly be, but to endeavor to get the great masses of us to find in our daily tasks some of the things that make for happiness and influence and character.

Hy Syckle-Artist

I'D look kinda nice to see my name like that. But it's funny about a young lady wantin' it to be that way. The only thing I kin figure is, Sophie is gettin' this young lady to cultivate what you call my artustick abulity so I kin get ambishus to paint the barn.

Now this young lady says, see'n' as I've learned to write I've got what you call the fundamentuls of makin' straight lines and curves. Now the only use I got fer fundamentuls is to get the fun outa them, and when you get the fun outa fundamentuls, all you

got left is demen-tuls, which my friend Dan Webster says in his book, means crazy, which is about what I think this lady is.

I ain't atall ambishus about art 'cause I don't like paintin' barns. So I tells the lady I ain't never learnt to write. I don't know nothin' about straight lines and curves, 'cept as I admire them on the young ladies hereabouts. I says to the lady about the only think I kin draw is my breath.

The other day this artust lady sees a picture of a calf's head and see'n' as I was eatin' calf's brains, she thinks I kin draw its head.

She says, first draw a triangul and then block the calf's head in it. I says, first I gotta learn to make a triangul and that would take about a year. Besides, if I see any calf runnin' around loose, I put their heads in stanchuns, but when it comes to trianguls, that's somethin' else again.

But, I says, if I am goin' to draw anything, a calf's head is O. K. to start on, 'cause it'd look like a old cow when I got it finished. If I started to draw cows' heads, they'd be dead and buried before I got through with them. But by drawin' calf's heads, I'll have a whole herd o' old cows around after a while. I ain't got no accomodashuns fer them, and I ain't goin' to make no more 'cause I don't want no more barns to paint.

I guess I give you enuf o' my artustick work fer this time, so I gotta say Ameh, or see'n' its a lady artust I'm talkin' about, I gotta say Awomen.

HY SYCKLE.



Fertilizing for Better Fruit

What Some Michigan Fertilizer Tests Have Revealed

By Ove F. Jensen

TWO good apples are worth more than half a dozen mediocre ones. But good apples, or good fruit of any kind cannot be produced by grading alone—the quality must be put in the fruit by proper feeding, pruning, and spraying. Michigan fruit growers have in the past few years made splendid progress in grading and marketing better quality fruits. There is, however, the opportunity for making equal progress in production methods, especially in supplying the crop with the plant food elements necessary for a maximum crop of high quality.

Improving the Apple Crop.

Possibly the most striking example of both increase in yield and improved quality is had in the test conducted by the Michigan Agricultural College in an apple orchard on sod near Eaton Rapids, Michigan. The results of this test have already been reported in the columns of the Michigan Farmer. Five trees unfertilized yielded four crates of large apples, four crates of medium apples, and one-half crate small apples. The same number of trees that had been fertilized produced 34 crates of large apples, 13 crates of medium apples, and one and one-half crates of small apples.

Nitrogen is, of course, the most essential element in a fertilizer for apple trees. Potash has apparently little or no effect, although at one time

it was thought that potash produced better color. The most recent investigations show that color of the fruit is dependent on sunshine and maturity. If the trees are not pruned so as to allow plenty of sunshine between the branches, or if excessive foliage is produced by overfeeding with nitrogen, a lack of color is likely to result. Phosphorus in general is believed to be beneficial, possibly in the set of fruit. At any rate, phosphorus is usually desirable for its effect on the sod mulch or cover crop.

The fertilization of young orchards

not in bearing is recommended if the trees are not making sufficient growth. For trees five to ten years old, applications of three to five pounds per tree of equal parts of a good nitrogen carrier and acid phosphate are recommended. For older trees as much as ten pounds per tree may be applied. The fertilizer should be scattered evenly in a circle beneath and a little beyond the branches, keeping a few feet away from the trunk of the tree.

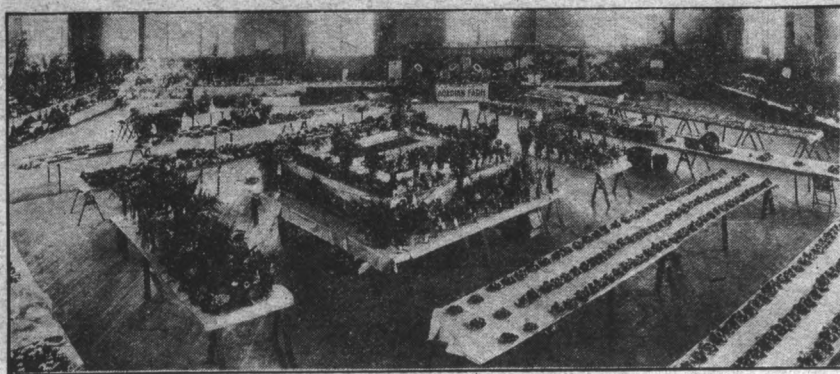
If apple trees are covered with rich dark green foliage and the twig growth is large, the chances are that

the trees need little or no fertilizer. An upland or poor soils, especially in a sod mulch orchard, trees generally respond profitably to fertilization.

Some Good Results on Cherries.

Peaches are commonly regarded as being the most responsive to fertilization, and cherries the least responsive. However, very good results have been secured on sour cherries in Benzie County. Mr. J. L. Kraker, County Agricultural Agent, reports that the use of fertilizer in cherry orchards is increasing rapidly, the sale of ammonium sulfate alone increasing one-half ton in 1919 to 90 tons in 1922. Mr. Kraker began tests with fertilizer in 1920, applying three pounds of nitrate of soda and five pounds of acid phosphate per tree on some six year old trees that were considered quite vigorous. The crops in 1920 and 1921 were light, and no records were taken. In 1922, the fertilizer applications were repeated, and the average increase in yield of the fertilized over the unfertilized trees was 13 pounds per tree. Figuring cherries at six cents per pound, and subtracting the cost of the fertilizer, cost of handling and applying, and cost of picking the extra 13 pounds per tree, the net profit per acre was \$34.29 in this orchard.

A good crop is generally produced if one blossom out of 13 sets fruit, (Continued on page 471)



Quality Fruit Requires an Abundance of Each Element of Plant Food.

Why Consumers' Cooperatives Started

A Historical Sketch of One Class of Mutual Business Institutions

By J. T. Horner

[Michigan Agricultural College]

IN this country, real poverty is an exception. There are some, who have had misfortune and are in hard circumstances. There are many others, who do not have the quality of necessities which are desirable; but on the whole, in the United States, the people are rather well-to-do. So far as we are able to learn from history, there was never a time when the general masses of the people were so well off as they are in this country today.

The past three years have been anxious ones for some. Farmers have had their income reduced from the high price period of the war. For a while after the decline in prices there was a great deal of unemployment. In some cities among workers, who had been employed at low wages and had no savings account, there was, no doubt, some distress. At all times it is necessary for most of us to watch our expenditures, for our wants grow faster than our income. But there is not the necessity for economy today that there was in former times.

Alfred Marshall, an English economist, writing on the conditions of the laboring classes in England during the early part of the nineteenth century said, "Early in this century, when wages were low and wheat was dear, the working classes generally spent more than half their income on bread." This is a condition which is almost impossible for us to conceive today. Our expenditures for bread are not great. The invention of machinery which made low cost wheat production possible, the development of rapid and cheap transportation, and the invention and use of scientific milling and baking machinery have made the cost of bread very low. It may be said that those inventions which made cheap bread possible have done more to free the laboring man from poverty than any other one thing.

It was during this period before the cost of bread was much reduced and when the adjustments necessitated by

the industrial revolution were not yet completed that working-men turned to cooperation. To these people every penny was of importance. The savings of a little here and a little there was to be encouraged. It was natural that cooperation among consumers would start at a time when the masses of the people were just beginning to learn of better ways of living and when industrial conditions made poverty so ever present.

Modern consumers' cooperation had its real beginning with the Rochdale pioneers in 1844. It has thrived in those countries and among those classes where small savings were in significance. This movement has had great development in England. Cooperative stores, while they number only about 4% of the total number of retailers, supply about one-quarter of the population of England with ordinary groceries. The activities of the consumers' cooperative societies have been re-

stricted quite largely to necessities. The whole aim of this type of cooperation is to provide its members with every day requirements at the lowest possible cost. The profit from dealing in such produce is to be eliminated—or given back to the member in proportion to the quantity of his purchase.

The consumers movement started first by the organization of small stores to supply the members of the local society. The advantages which accrued were not great because the gains of large scalebuying could not be secured. It was only when the central wholesale society was organized that great savings were possible. The central association—called in England—the Cooperative Wholesale Society—buys for individual stores and is enabled, because of the large amount of goods it purchases, to buy at the lowest prices.

This wholesale society is doing more than merely buying for the local

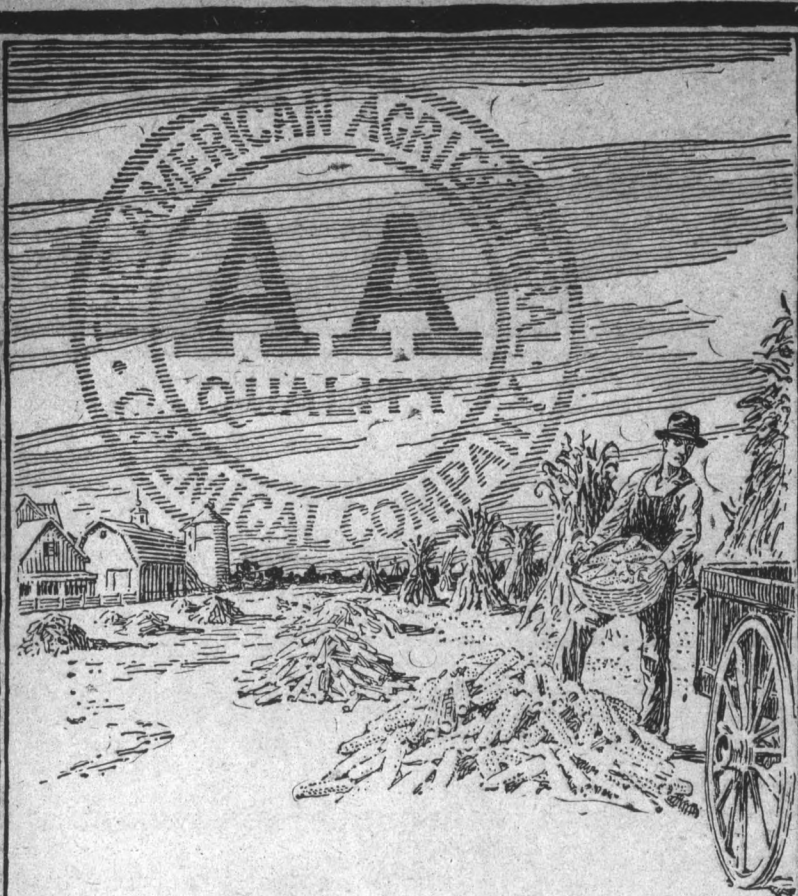
societies. It owns and operates steamship lines. It owns great warehouses. Its flour mills are the largest in Great Britain. British consumers own factories, in which they make soap, shoes, motors, watches, machinery, clothing, leather goods, tinware and many other things. They provide amusements, entertainments, concerts and libraries. This cooperative movement started out as a retailing institution and has expanded so that it is conducting successfully, retail, wholesales and manufacturing establishments.

Since the beginning of the World War, there has been a great development of consumers' cooperation in almost every country in the world. These organizations are found in Japan and India as well as Europe. In most of these countries the movements have been among the working classes. In the United States, the progress of consumers' cooperation has been difficult. In many instances societies have been organized and thrived from the beginning. There have been many societies started by enthusiasts and idealists without sufficient cause or without being founded upon the right principles. These have failed and the main effect of their existence has been to discredit the cooperative movement in general. A cooperative association should never be organized merely for the sake of organizing something. The field should be well surveyed and if conditions are conducive to success the organization may be effected.

There are probably three thousand consumers' societies in the United States to-day. These are found mostly outside of the large cities where trade unionism is strong, in certain agricultural sections, and among some foreign groups. In Illinois there are about one hundred and fifty societies, Kansas has about seven hundred and fifty. It is estimated that there are consumers' organizations in Michigan some of which, have been in operation more than thirty years and are among



While individual animals can be found in the state that are larger than either of these animals, so far as we know, these oxen hold the record for size as a team, weighing 7,210 pounds.



THE invisible ingredient in fertilizers is—*quality*. You can't see it, but it's the most important thing fertilizers must have for profitable crop-growing. To be sure of getting it, buy the fertilizers bearing the "AA QUALITY" Trade Mark. It stands for the highest integrity in fertilizer manufacture, the widest experience, the longest record of success. It is the pledge of quality of the greatest fertilizer manufacturing organization in America.



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*"Worth more per dollar because
they produce more per acre"*

the most successful in the Country.

If cooperation is going to bring the fullest advantages to consumers, it is necessary that the local societies federate into some sort of a central wholebuying buying association. Such a federation will bring the advantages of large scale wholesale buying and render to the locals a real service. In this country very little working together is found among such societies. Each one seems to be going it alone. In England the movement gained the greatest savings through the Cooperative Wholesale Society. This lack of federation is possibly the greatest weakness of the consumers' cooperation in America.

However, it is not to be expected that cooperation among consumers would develop in the United States as it has in other countries because of the characteristics of our population. We are not a stable people. We move about too much. We are too individualistic and prefer to get along alone. We have too much regard for our liberties and individual action to tie ourselves to any one supply association. And, what is probably more important, we are, as a nation, too prosperous to make it necessary that we save the small amounts which would come through cooperation.

Farmers have been having a great deal to do with cooperation during the past few years and if it is to bring them the benefits which are possible it is essential that they understand clearly its possibilities and limitations. It is also necessary to note the difference between types of cooperation buying of the things needed for consumption, cooperative buying of the things needed in production, cooperative selling of the things produced, and cooperative performance of productive operations. There are different principles which apply to the different types of cooperation. A clear understanding of these principles will often bring success where failure would otherwise result.

There has not been a very great development of cooperative societies for the supplying the farmer with his consumptive requirements. Most of our attention has been directed toward the problems of cooperative marketing—selling cooperatively the things produced by the farmer. It is quite natural that we should attach more importance to cooperation in marketing because of the possibilities of improvement in this field and because it is natural for us to attempt to increase our income rather than decrease our out-go.

Farm Conditions Favorable

A LARGE portion of the State is still covered with snow. Temperatures have ranged below normal. Thawing in the daytime and freezing at night has been much the rule. Country roads are generally in bad shape.

Farm activities have been restricted by weather conditions and spring work is being delayed. Some marketing of potatoes, hay and live stock has taken place although as yet comparatively few potatoes have been moved from the pits. Beans are moving out rather slowly.

Winter conditions have been quite favorable for fall grain and hay crops though the effect of early spring weather is a big factor in the season's crop prospect. Peach buds have been damaged extensively in a few of the most productive peach countries but over the remainder of the State little injury to buds is reported to date.

The seed corn situation is bad. Much of the grain harvested was high in moisture content and where it was not given especial care for use as seed, is testing very low. Careful testing of corn to be planted is being advised if strong and full stands are to be expected.

Live stock are in a generally good condition of health. Marketing of cattle has fallen off. Movement of hogs continues liberal. Some marketing of sheep is beginning. Dairying in the state is growing in favor as shown by the amount of dairy products produced last year.

Some movement from the country to the city continues this year but for many remaining on the farm the outlook has encouraging aspects. There will be an adjustment of crops to secure a more profitable acre return and to get along without hiring much help.



WOULDN'T IT GET YOUR ANGORA, IF YOU WERE A POOR DOWNTRODDEN BUCKET SHOP OPERATOR IN NEW YORK WITH A BUNCH OF QUESTIONABLE STOCKS WHICH YOU HAD BOUGHT AT 65 CENTS A SHARE AND WERE WILLING TO SELL AT A DOLLAR A SHARE PLUS A 15% COMMISSION—



—AND YOU SPENT SKINTEEN DOLLARS AND SKINTEEN CENTS CALLING UP A FARMER OUT IN THE MIDDLE WEST—



—AND AFTER YOU HAD BEEN REAL CHUMMY—OFFERING TO LET HIM IN ON A FEW SHARES OF YOUR STOCK—

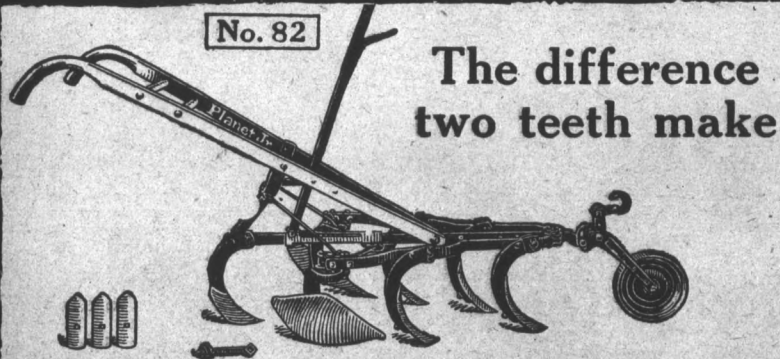


—TO HAVE HIM TELL YOU TO GO PLUMB TO A PLACE WHERE THERE IS NO BLUE SKY—AND THEN HANG UP WITH A BANG?—



—WOULDN'T IT GET YOUR ANGORA?

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Planning the Home Grounds

Some Practical Suggestions on Beautifying the Door-yard

By E. Genevieve Gillette

DAD, his last cow milked, and Mother with the supper dishes done, pull the fascinating seed catalogues from underneath the library table and begin the evening's fun. What plans they make! Never did tomatoes grow so red and juicy or string beans so long and tender. Never were cucumbers better for pickles or potatoes freer from bugs!

The garden seed list is a long one; the mice got into that pop-corn and

a frame for the picture that your neighbor sees when he comes up the road. The arrows in Drawing No. 2 show the direction of the good views. Therefore everything is placed in relation to these views and in such a manner that the views are "framed" rather than broken into.

One will note the boundaries of the lawn in the first drawing and in the second. One is probably enclosed in a wire fence and the other is bounded by masses of shrubbery. These shrubbery masses contain a few kinds of shrubs but each kind is placed together and so gives an effect as a whole rather than as an individual. Until we learn that country places are interesting only in their mass effects we cannot come to anything really fine; in the city all must be details, perhaps, but not in the country. Everything about the country is big.

Now the museum style (for I feel justified in calling it a style) results from a lack of understanding, and often times from indifference. Suppose instead of making a list of nursery shrubs to add to that garden seed list you take your pencil and paper and make a plan of your own dooryard. Draw it big enough on a sheet of brown wrapping paper—say an eighth or a quarter of an inch equalling a foot. Put in the arrows where the best views are and then begin to put in the trees always far enough away from the arrows to allow plenty of room when they spread. After that draw some shrubbery masses around the house and on the boundaries but be sure you leave enough for open lawn space. Nothing is more disastrous to a country house than a cramped and broken lawn. Leave it big. Suppose you can't now it all.

After you have your drawing made, decide upon one kind of shrub to order this Spring. You can get them in "ten

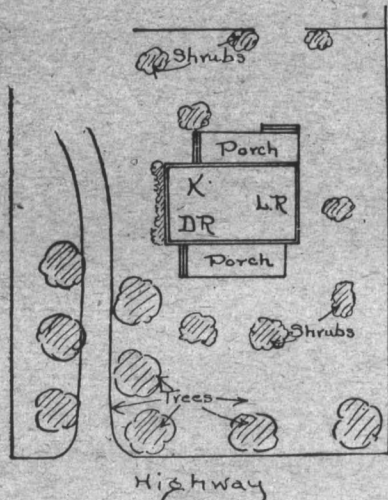


Fig. No. 1.

ate nearly every bit that Dad saved for next Spring's planting. So down the list it goes until Dad shoves back his chair and takes off his spectacles. Then Mother turns over to the last page in the catalogue—the one with the picture of the Crimson Rambler—and begins to remember how nicely one of those roses would look growing over the milkhouse door. Somehow it is very strange how a garden list can grow so long.

For that very reason, if for no other, it may not come amiss, at this time, to jot down a few practical suggestions concerning the ordering and planting of nursery stock about the farm home. Almost everyone, even in these busy and strenuous times, manages to plant something about the dooryard of his home. If his work is to count for anything—in other words if his home is thus to be made more attractive—he must have some definite ideas about where this stock is to be planted. Ordering stock and trusting to luck to find a place where you can put it is never conducive to making your home and its grounds more pleasing.

The writer would say, after some fifteen years in the country and some months at Extension work, that the main trouble with most farmyards lies not so much in a lack of plant materials as in the arrangement of those at hand. How common it is to find a yard arranged like the one in the diagram below—a bridal wreath or a snowball on either side of the front door and a few miscellaneous perennials and shrubs scattered here and there about the lawn. Almost never does one find a farmhouse with anything planted about its base so to clothe its bare-cold wall. Yet these very foundation plantings (as we call them) do more to harmonize the house with its surroundings than any other thing one can do. Often one finds in the dooryard enough plants to give the desired effect provided they were rightly placed. Are the things you already have set where they can give the best they have towards the beautifying of your home?

A good way to determine this is to stand in one after another of the important windows. Is the view obstructed by trees or bushes in the lawn? Or do the trees and bushes help to put the distant view into a frame of greenery on a summer's day? Trees and shrubbery should all help to frame the pictures from your windows just as much as they should

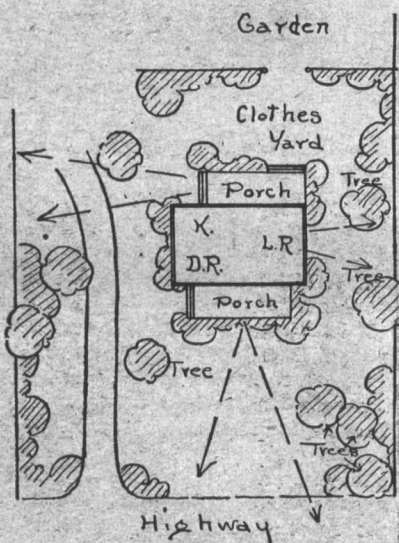


Fig. No. 2.

lots" cheaper than in twelfths of a dozen and you will be better satisfied that way. Instead of planting annuals so as to have flowers through the season, plant perennials that come year after year. They are great timesavers and are just about twice as hardy and effective. If you must have annuals put them in the garden where they are cultivated with the cultivator and do not need so much hoeing. After a little we will get all these things down to an efficiency system just as we do with other things. We will find out how to do, but we must remember that everything planned out beforehand is just so much at least half done. How better to spend a long evening while the snow piles around the yard? Tonight within all is cozy and warm. Plan now for the beauty which may be yours when on a hot evening next summer after a hard days work you settle on the porch in an easy chair to watch the twilight grow deeper.

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By V. K. Cassady, Chief Chemist

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Don't buy it—just ask for a ten-shave test. Compare Palmolive Shaving Cream with the soap you are using now.

If we have done what you desire, adopt it. If not, return to the old. We ask no favors. Do what serves you best.

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Late Styles in Rotations

Old "Hit-and-Miss" Planting is a Loser and Not Becoming
to Modern Farmers

By I. B. McMurtry

THE common three and four-year rotations are the ones which most progressive farmers are practicing. They are not bad. The greatest sin committed in either of them is that many farmers will pasture the meadow land from the time the hay is off until the field is fall plowed, thus robbing the soil of a good growth of vegetable matter. The three year is superior to the four year rotation as a soil builder.

The five year rotation is just an excuse for a good rotation, unless the hay field is topdressed with manure the fifth year and manure, or a good fertilizer application, put on the second year hoed crop. In all of these, it will be profitable to put a 200-lb. application of phosphate on the small grain seeding.

In the five year rotation it is necessary to use a mixture of clover and timothy and have timothy for the second hay crop. I consider this

Down in Illinois much of the soil has been mined so relentlessly that county agents and progressive farmers are pushing the two year rotation of corn and wheat. Wheat is sowed in the corn. In the early spring sweet clover is sowed in the wheat. Either a stubble hay crop or lots of pasture is available during August and September. The following spring the sweet clover is plowed down, just as late as possible, to put it into corn. This puts a heavy legume green manure crop under every second year.

Every time a sod is plowed down one is plowed up—and this is done so often that it builds the soils productivity up rapidly. Our farmers can use this with rye in place of wheat, and beans in place of corn.

Start it this spring if you have a piece of wheat or rye. Such a rotation as either of the two last considered will increase the farm income many hundred dollars during the next

CROP ROTATIONS

Common Three Year Rotation

- (1) Hoed Crop (2) Small Grain (3) Hay
Corn, Beans, etc. Wheat, Rye, Oats Clover, Sweet Clover, Timothy

Common Four Year Rotation

- (1) Hoed Crop (2) Small Grain (3) Hay (4) Hay

Common Five Year Rotation

- (1) Hoed Crop (2) Hoed Crop (3) Small Grain (4) Hay (5) Hay

Alfalfa Rotations

- (1) Hoed Crop (2) Small Grain (3) Alfalfa (4) Alfalfa (5) Alfalfa
or
(1) Hoed Crop (2) Hoed Crop (3) Small Grain (4) Alfalfa (5) Alfalfa (6) Alfalfa

Soil Building Rotations

- (1) Corn or Beans (2) Wheat or Rye (Grain seeded in Corn, Sweet Clover in Grain)
(1) Oats (2) Potatoes (Sweet Clover in Oats, Plowed down for Potatoes)

poorer practice than to use clover or sweet clover—poorer from the standpoint of feeding the stock as well as feeding the soil for no kind of a sod is poorer to plow under than a timothy sod.

Alfalfa Rotation.

The chief difference when alfalfa is used as the legume is the desirability of keeping the alfalfa for several years. It should not be kept longer than three years as it draws pretty hard on the soil fertility. A good heavy growth should be plowed down at the end of the rotation. Manure, phosphate and, on most soils, a heavy application of lime should be used in the rotation. The alfalfa rotation is certainly superior to the common five-year rotation.

Better Soil Building Rotations.

During all my years spent in county agricultural work I consistently advocated shorter rotations for the lighter types of soil. When such have been practiced, the soil improvement is very marked. Crop yields and, therefore, net returns have increased.

One of the most prosperous farmers in Michigan practices a two year rotation with potatoes and oats as his cash crops. He does not need to handle large quantities of barnyard manure. With the oats he seeds sweet clover. The oats are taken off and usually a stubble hay crop is available early in September. By June first of the next year the sweet clover is three feet high. It is then turned under, worked thoroughly and planted to potatoes. It is needless to state that with the proper use of phosphate and potash this rotation produces bumper crops of oats and potatoes—and is getting better every year.

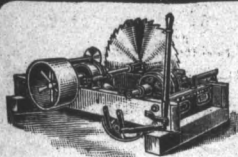
five years. Just wait until you can get onto the wheat or rye field with the drill. Drill the sweet clover 12 to 15 lbs. to the acre crosswise of the wheat rows. Inoculate the sweet clover seed. Follow immediately with the cultipacker or roller. This last process will benefit both wheat and sweet clover.

CONTINUES STUDY OF POTATO GRADES.

A SERIES of hearings have been held by the Department of Agriculture in all the commercial potato producing sections with a view to reaching an understanding as to the Federal standard potato grades. These hearings were largely attended. There was no opposition developed. Warehousemen were eager to know when they could be licensed under the law and to fully understand the grading regulations and requirements. The department is going ahead with its work of drafting regulations which will meet the requirements in the warehousing of potatoes.

GRANGE SELECTS PLACE FOR 1924 SESSION.

ATLANTIC City has been selected for the 1924 session of the National Grange to be held November 12 to 20, by unanimous vote of the executive committee. Atlantic City was chosen largely because of its splendid hotel facilities. The revival in grange interest and the fact that the organization has over 800,000 members will make the coming session one of unusual size. In the interest of efficiency and economy, the program will be changed from ten days to eight days.



SAW YOUR OWN LUMBER

with a Howell Portable Saw Mill. Turn your standing timber into high price building lumber at the mere cost of sawing. Big demand for lumber, lath and shingles. Keep your engine busy the year round making

Big Money in Custom Sawing for your neighbors. Howell saw mills are made in several sizes suitable for tractors of any size. Also Edgers, Planers, Lath and Shingle machines. Write for free Catalog, B-6.

R. R. HOWELL & CO., Mfrs.

Minneapolis, Minn.

MONEY CROPS

SOLVAY ground to powdery fineness, brings results the first year. One spreading benefits the soil for four to five years. Easy to spread. This year use SOLVAY.

SOLVAY Pulverized Limestone brings QUALITY crops that command highest prices. Makes sour soil sweet and productive. Write for the SOLVAY booklet—tells how to use lime economically and for greater profit—FREE on request. Address THE SOLVAY PROCESS CO., Detroit, Mich.



with
Guaranteed
95%
Carbonates
Furnace dried. Non-caustic—will not burn.



OVERHAUL THE TRACTOR NOW.

DOES your tractor need overhauling? Don't put it off. I know it may be hard to dig up the money and maybe you can get through another season. That is what we thought last year. The result was we paid out as much for needed repairs as it would have cost us to give it a thorough going over early in the spring, and we experienced some very aggravating delays in the busiest season in addition.

Some of our greatest troubles would have been avoided had we attempted the clearing up job in time. We learned our lesson all right, and this spring before working time our tractor will get a good cleaning up inside and out, and all parts not in good condition will be replaced with new. One season's experience in postponing a needed general overhauling is enough. The tractor will not stand neglect and let you get by with it.

Perhaps the old valves have become burned and pitted causing the motor to run badly and loose power. It does not cost much to grind them and see that they are properly seated, or even to replace them with new ones. Such treatment makes the old motor behave like new. It may be the piston rings are worn, resulting in poor compression and allowing some of the unburned fuel to escape into the crank case and dilute the oil. Next thing may be a burned out bearing or even a scored cylinder.

You may find an insignificant oil hole stuck up with dried up oil or grease. It is a simple thing but has been known to cause expensive repairs and more expensive delays when not looked after in time.

The tractor has come to the farm to stay. We would not like to farm without one, but you can not coax it, or force it, or kid it into working when things go wrong. It is as strict about its inside workings as the Bank of England. There is no use trying to put anything over on it. That is one of the few things that can't be done. —Pope.

CONCRETE FOR GRANARY FLOORS.

Is it safe to lay a concrete floor in a granary? Some say it will cause the grain to mould.—R. D.

Due to the fact that porous concrete absorbs moisture quite readily, it would not be practical to store grain, especially on a concrete floor which rests on the ground. If set above the ground and built of good rich material, there would probably be no difficulty.

If it is desired to build the floor on the ground it can be water-proofed by the following method. Over the surface of the floor, which may be any thickness desired, probably 4 inches or more, spread a layer of hot asphaltum or asphalt in the form of a liquid, after which a floor is laid of tar paper with the edges lapped and coated with tar. After this tar paper is laid it is well to use another coating of asphalt after which a surface coat of from 1 to 2 inches of cement and sand in the proportions of about 1 to 3 can be laid.

The asphalt and tar paper serve to make a water proof membrane, which being protected by the upper cement floor is permanent.

There has been some question raised about the moisture accumulating on concrete, even when separated from the ground. It is barely possible that the moisture contained and circulating through the wheat, coming in contact with the cold concrete floor has a tendency to condense and spoil a layer of grain lying next to the floor. I

have never heard of any definite case of this kind but am simply suggesting this as a possible explanation.—H. H. Musselman, Professor Agricultural Engineering Dep't.

WAREHOUSING REQUIRES STANDARDIZATION.

IT is planned to develop standard grades for all agricultural products that are stored in warehouses. It is necessary to have uniform grades under the warehouse act, in order that receipts may be issued that will be acceptable to banks. The bankers are cooperating, some of them refusing to make advances unless the products are graded according to Department of Agriculture standards.

More than 85 percent of this country's corn crop is fed to livestock, and somewhat less than 10 percent is used for human food.

Eureka Potato Machines

Make Money for Potato Growers

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

Potato Cutter

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

Potato Planter

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

Traction Sprayer

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

Riding Mulcher

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

Potato Digger

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

All machines in stock near you. Send for complete catalogue

EUREKA MOWER CO.

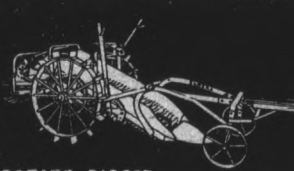
Box 1115 Utica, N.Y.



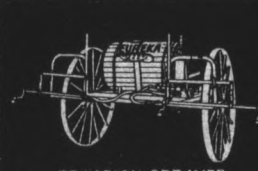
POTATO CUTTER



POTATO PLANTER



POTATO DIGGER



TRACTION SPRAYER



RIDING MULCHER

Mention Michigan Farmer When Writing to Advertisers

LOOK FOR THE RED BALL

TRADE MARK
"BALL BAND"
MARK

Just Like Your Own Name

When you want a plow, a saw or an ax, you know the name of the kind to get.

The same is true of rubber footwear.

You know "Ball-Band" (Red Ball) Boots are the kind that have always been in your family since you were a boy.

Perhaps you don't know the many different

styles for different kinds of wear and work. We show only a few on this page.

Look at them the next time you are in the store. See how much more comfortable you can make your feet by having several different kinds.

They all have the Red Ball Trade Mark and the Red Ball means More Days Wear.

We make nothing but footwear—and we know how

Mishawaka Rubber & Woolen Mfg. Co.

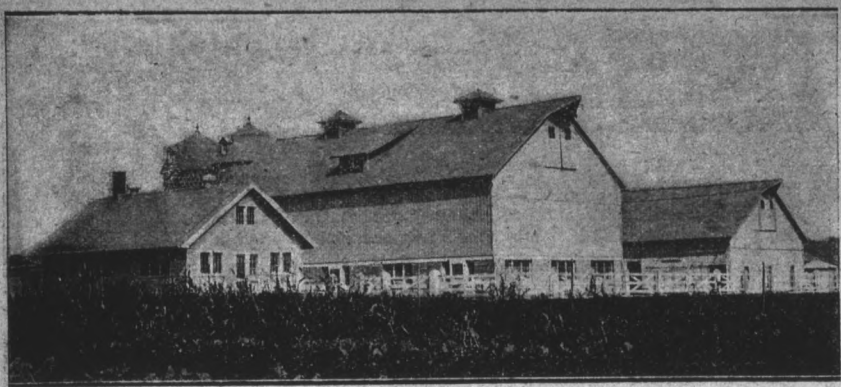
328 Water Street

Mishawaka, Ind.

"The House that Pays Millions for Quality"

Sport Shoe
(also made
Basket Ball
style)Utility Work Shoe
(canvas top, leather
vamp, rubber sole)Women's
Lura
CroquetMen's Okay
Self Acting

Hip Boot



Three hundred squares of REYNOLDS SHINGLES protect the dairy barns pictured above.

Their owner insisted on REYNOLDS because he knew that in no other way could he be assured of the quality of roofing that Reynolds affords. His investment in buildings, stock and equipment was such that he couldn't afford to take chances with anything but the best.

But their first cost, divided by the years of satisfactory service they render, makes Reynolds Shingles an economical purchase, no matter how modest or how elaborate the building that they cover.

You too may enjoy the benefits of Reynolds service at its surprisingly moderate cost.

Write us for information and name of the nearest Reynolds dealer.

H. M. Reynolds Shingle Company
"Originator of the Asphalt Shingle"
Grand Rapids - - - - - Michigan

OUR SERVICE DEPARTMENT

Always Give Name and Address When Sending Inquiries or Subscriptions
Service Cannot Be Given to Unregistered Letters

ACTION IN NON-PAYMENT OF RENT

Some time ago I rented my house, rent to be paid in advance each week. Now renter refuses to pay at all. What could I do?—A. E. N.

Serve notice to quit for the non-payment of rent, take summary proceedings before a Justice of the Peace or Circuit Court Commissioner, and obtain judgment of ouster and writ of restitution.—Rood.

PRIVATE GAME PRESERVES

I have a place where muskrats like to stay, and would like to know how I can get help from the state to keep hunters and trappers out. Would like to know what kind of signs I should put up so they are legal and yet allow me the right to hunt game on my farm. I have no fence around where the rats are.—E. W. L.

The statutes provide for the establishment of private game preserves. Write to the State Game Warden at Lansing for forms, etc.—Rood.

EMPLOYMENT LIABILITY.

If a man works for a concern, and gets hurt, can he draw his compensation until he gets fully well enough to go to work? I was working for a company, and got my leg broken in two places. Received compensation for a while, but am disabled yet as I cannot use the limb. But I haven't received compensation for about two months. Have written them, but received no answer. What would you advise me to do?

What is the address of the State Industrial Commission, and would you advise me to write to them?—T. O. N.

Public Acts 1919 No. 64, Section 9, provides that in such cases compensation shall be not more than \$14.00 and not less than \$7.00 a week, and in no case shall the compensation be greater than 500 weeks from the date of the injury nor more than \$6,000. Within these limits the decision of the State Industrial Commission controls.—Rood.

MAKING A LIVING ON FOUR AND ONE-HALF ACRES.

I am coming to you for information and advice. To begin with, we know absolutely nothing about farming or farm animals, so you will need to frame your reply in childishly simple and very explicit terms.

We have a five acre lot. The land has not been worked for more than two years. We want to use four and a half acres for crops. There is little better than a quarter acre in orchard. Is there anything we can plant profitably there?

Our family numbers eleven—three adults and eight children. We have a T. B. tested Jersey cow and a few thoroughbred brown leghorn hens. Would it be possible to add another cow, a sow and her litter, enough chickens to number a hundred and grow enough for the animals and the family?—Mrs. J. H. B.

The first question that comes to one's mind is what are you going to do with the 59 acres on the south side of the road?

It would be quite impossible, no doubt, to feed a family of eleven persons and two Jersey cows from four and one-half acres of land. You can, however, produce sufficient vegetables, including potatoes, on this land and have some to sell and besides have some roughage for the Jersey cow.

Your having no experience, it would be advisable for you to consult your neighbors as to the best plan and the best crops for you to grow. From them you could get first-hand information that would be very practical. The following plan is offered, hoping it at least may be suggestive:

1 acre of potatoes, ½ acre early and ½ acres sweet corn, ½ acres early, ½ acre late variety.
1 acre later variety.
½ acre garden peas, also early and late variety.
½ acre string beans.
½ acre table beets, carrots, parsnips, turnips, cucumbers, etc.

½ acre cabbage, squash and any other vegetable you like.

If the orchard is seeded, it probably would not be advisable to attempt to crop it. You could cut the grass for the cows or you could tether them out there to eat the grass.

The half acre of early potatoes could be dug and the ground planted again for another crop of sweet corn or if it did not mature it could be saved for feed for the cows. The same could be done with the land in early peas. Pea vines, and the corn stalks, also cabbage leaves, are all good cow feed.

You will want a portion of all the crops suggested for food or the family. Considerable of it as fresh from the field and enough stored or canned to last the year.

All of these crops will find a sale in the nearby markets or at your door and what you do not need can be sold and the money used to buy the things you cannot raise—meat, groceries, chicken feed and grain for the cows.

By rotation of crops is meant to grow a different kind of crop on land each year—corn one year, oats the next, and clover the next, etc., then repeat.

CEDAR RUST ON APPLES.

What evil effects, if any, will a white cedar hedge (arbor vitae) have on an orchard fruit? I am told it is liable to cause cedar rust. Is this possible? Also, could Norway spruce have any effect on fruit trees? I would appreciate your unprejudiced opinion.—E. W. B.

These two inquiries can be answered together. Rust on apples sometimes called cedar rust is a true dust disease which occurs on both the apple and on the red cedar or common juniper. It does not occur on white cedar or any other evergreen. There would, therefore, be no ill effects from using a white cedar hedge near apples. Similarly Norway spruce would have no effect on apples or any other fruit.

The relation of the red cedar to the apple is similar to the relation of the barberry to the wheat, in bringing about wheat rust. In both these cases the rust fungus passes a part of its life cycle on one host and a part on the other. Destruction of one host is very helpful measure in stopping the spread of rust.

In Michigan the apple rust problem has not become a factor. This is chiefly due to the scarcity of the red cedar and to the resistant varieties of apples which we grow. Only a few of our varieties, such as Wealthy and Grimes Golden, are very susceptible to the cedar rust. Then due to the limited amount of the red cedar the rust is extremely scarce, only two or three collections having been made in Michigan. There are orchards in Washtenaw county where red cedars have been used as wind breaks, yet these orchards do not show any rust nor are there evidences of the rust occurring on the red cedar. The rust, if introduced, could grow in Washtenaw county. It merely has not gotten there.

The red cedar is gradually moving northward, being spread along fence rows by birds. Twenty-five years from now we may have as serious a rust problem as part of Indiana and Ohio now have. When the rust becomes serious eradication of the red cedars must be carried out and this will involve cutting down the red cedar trees within a distance of a mile of any commercial orchard.

Evidently some mis-statement has crept into some popular magazine with reference to the danger from white cedar and it is hoped that this definite statement will help stop any misapprehensions in this regard.—G. H. Coons.

Patents

Write today for free instruction book and Record of Invention blank. Send sketch or model for personal opinion. CLARENCE A. O'BRIEN, Registered Patent Lawyer, 651 Security Savings & Com'l Bank Bldg., directly across St. from Patent Office, Wash., D. C.

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50 page Land Clearing Book illustrated in colors. Written by land clearing experts. Explains the different methods and tells when each is best. Write today for free copy. New low prices and easy terms on latest model Stump Pullers.
A. J. Kirshin Co., 312 Lud St., Escanaba, Mich.
Demonstrators wanted Write Today.

EXCAVATORS for DIGGING
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S. O. NAFZIGER
Box 434, Kalamazoo, Mich.

Managers Wanted In Every County

Responsible man or woman of ability to work out from home, to demonstrate and take orders for the famous, well-advertised Burpee Home Can Sealer that has revolutionized home canning. Right party can easily earn \$12 to \$50 a day. Ideal for man and wife owning car. Only thoroughly responsible, hustling workers need apply. Address, with bank and business references, Burpee Home Can Sealer Co., 216p W. Huron St., Chicago, Ill.

More Money For Your CORN This Year

We show you how and PROVE that you can SAVE every ear of your corn this year and get HIGH-ER PRICES if stored in a Martin Steel Corn Crib. Don't build a new wood crib or repair your old one until you get our low prices on Martin Steel Crib. They cost no more than wood,—last a lifetime. Waterproof, —Fireproof, —Weatherproof and stores corn better. Write for our big FREE Corn Crib Book that tells how Martin Steel Crib are helping other farmers get MORE MONEY every year for their corn.

Martin Steel Products Co.
Dept. 31 Mansfield, Ohio

Plant our Giant Roots and cut asparagus next year

Plant Washington Giant Roots this spring. Cut Giant Asparagus in 1925. Save 2 to 3 years.

Washington Asparagus, the largest and most tenderly delicious green asparagus ever developed, is disease (rust) resistant. Our Giant Roots yield giant green stalks with a most pleasing nutlike flavor, 1 to 2 inches in diameter.

A \$1.00 packet of seeds or 50 roots for \$5.00 will plant sufficient to supply an average family for 20 years. Or send \$3.00 for 25 roots. Orders post-paid, cultural directions included. Attractive prices for 1 to 10 acre plantings.

Write to-day for valuable free booklet and prices on seeds and roots.

RIVERVIEW FARMS, Box 16, Bridgeton, N. J.

**Given Away
5000
LORING
Plum Trees**

It is now easy to grow a California orchard in your own back yard with BRAND'S Wonder Northern Grown Nursery Stock, including all of the best of the Delicious New Fruits produced by the Minnesota State Fruit Breeding Farm.

57 Years of Success. Minnesota's Oldest Nursery

5000 Loring Plum Trees Given Away
One of those famous Loring plum trees will be given with every \$7.50 order for Brand's wonder fruit trees, berry bushes or other nursery stock, \$15 order, two trees and so on.

Beta and Alpha Grapes, the two best and hardest ever produced. Hardy in Manitoba. Harolds Apple, large and fine flavor. Monitor Red-wing, Golden Rod, and Underwood Plums, simply delicious. Zamboni Cherry, large black-sweet juicy. Latham and Red-path Red Raspberries, the two most wonderful raspberries ever produced.

FREE CATALOG tells all about Brand's wonder-bearing fruit trees, berries, grapes and Northern grown nursery stock.

Brand Nursery Co.,
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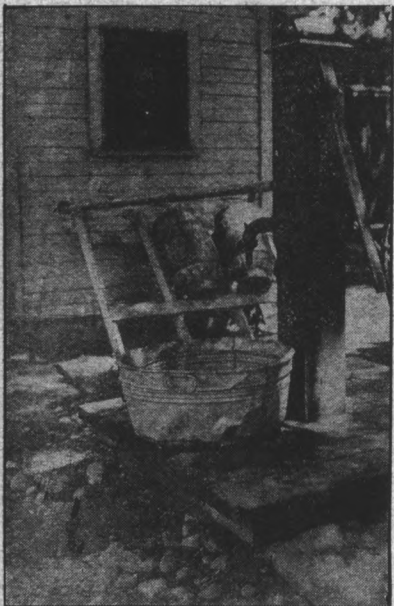
High-Powered Garden Seeds

(Continued from page 461.)

field corn. In order to make sure that there will be a high percentage of germination, the ears should not be allowed to remain in the husk for any length of time after they have reached maturity. As we shall be compelled to rely upon the air and sunshine to cure the seed, and to reduce its moisture content to so low a point that freezing will not injure, it will be essential for us to get the crop husked, and in crib, during the early fall, while there is yet ample warmth. We shall find it necessary to build very narrow cribs to contain the crop. These are generally made by stretching two rows of close-meshed wire fence, with a distance of eighteen inches to two feet between the rows. Some cross pieces on the bottom will hold a rough board floor, and for roofing we may use tarred paper, or a thatch of cornstalks.

As a general rule, we will find that the extra expense incurred in caring for this crop is more than compensated for by the increased price received. We find, also, that the man who grows sweet corn for seed one year is very likely to follow the practice over the succeeding years, and thus the cost of extra equipment is spread over a number of crops.

Cucumbers and tomatoes will require special machinery at harvest



Connected the Pump Directly with the Tank.

time. This is generally owned by the seed company who will loan or rent it to the grower. Up to the time of harvest, the culture of either of these crops is comparatively easy and inexpensive. The greatest difficulty will come when it is time to gather the crop, for the average farmer will lack the necessary labor to pick the fruits. As a rule, this is taken care of by having a number of growers in a neighborhood who will take turns in helping each other with the work.

The cash returns from these crops are sometimes very high. It is comparatively a rare thing to find a failure in these crops which may not be directly attributed to neglect, the lack of care. One feature to be considered also is the relatively small amount of plant food that is removed from the soil by a crop of cucumber or tomato seed.

Muskmelons, squashes and pumpkins are usually cut open and seeded by hand. This work may be spread out over a considerable period of time. It is the general practice of the grower to keep a number of hogs at hand, and to seed his crop as rapidly as the hogs may consume the residue from the crop. This has a good feeding value and will often pay for the cost of seeding.

While there is quite a large amount of onion seed grown in this state, this is generally the work of a specialist.

The onion, being a biennial, requires special care in its treatment, which the average farmer is not prepared to give it. Small lots of the other biennials, beets, carrots, cabbage, etc., are grown under about the same conditions as is the onion.

The acreage devoted to the growing of radish seed will be very large, during the season of 1924. This crop is a comparatively easy one to grow, and is one which in normal seasons will prove to be more remunerative than many of the ordinary farm crops. We are often asked if this plant will make a troublesome weed. We answer, that, although we may find an occasional volunteer plant following a crop of radish, we have never found that it will become a weed as we understand the term.

Should any question come up as to methods and practices in the handling of any of these seed crops, it may be referred to the office of the Department of Horticulture, at the Michigan Agricultural College, East Lansing.

SAVES CARRYING WATER.

BEFORE the arrangement shown in the photograph was devised it was impossible to pump water into the cooling tank in the adjacent milk house owing to the fact that the pump spout and the top of the cooling tank were at the same level. By fitting a cap over the end of the spout, the water is forced sufficiently higher in the pump to find an outlet through the pipe which extends through the wall to the tank within.—O. C.

TESTS HIS SEED CORN.

THIS winter I improved my time by getting my seed corn ready for planting in the spring. Early in the fall, I went through the field and market certain hills which I thought would produce good seed.

Later, I picked these ears off and stored them in the attic; a place free from mice and where there is a good circulation of air. During the winter I run germination tests and find out, just how the corn will grow. Then out of the many ears of corn, I select twenty-ears of the best for each acre of corn intended to plant.

In this way, better yields are assured and one is sure the corn will mature if the seed is grown on your own farm.—A. E. Jones.

OVERLOADING DAMAGES TRUCKS AND TIRES.

Here is how a practical tire man explained why overloading a truck is a fault for which the owner or operator gives up profit.

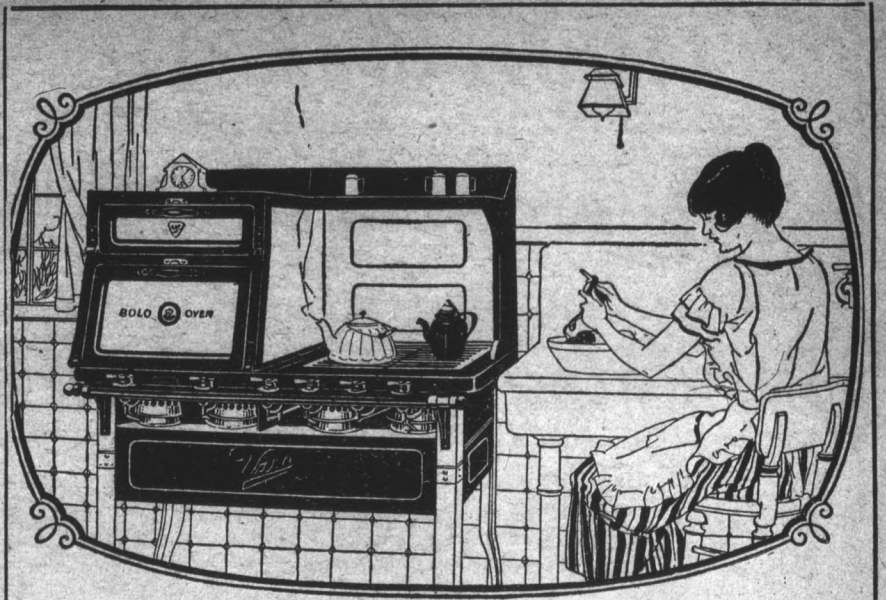
Say the full pack of a soldier on the march weighs 40 pounds, the day's march is about 30 miles. Carrying 40 pounds this distance equals 1,200 pounds-miles of work.

Now suppose the soldier was given a 60-pound pack. To do the same amount of pound-miles of work he need travel only 20 miles.

But it is doubtful if he could carry such a load when 40 pounds had already been proved to be his limit. Probably the marcher would be tired out after the first five miles.

It is just this way with truck tires. Properly loaded, they will do their job well. Overloaded, they will wear out before they earn the truck operator the profit he is entitled to.

Sweet clover, five years ago considered a troublesome weed by most farmers, now stands ahead of alfalfa in acreage in Ohio. Soils specialists estimate that there will be a 30 percent increase in that state this year to a total of 130,000 acres.



No Odor—No Wicks

No Noise—No Smoke

Gain new cooking ability with a smokeless, odorless Vapo Oil Range

Operates same as a gas stove because it burns gas

The Vapo is the highest grade oil range built and the most economical. Wickless, smokeless and odorless, it gives you more service per gallon of fuel, more service per square foot of space and more service per dollar than any other oil stove because of the remarkable, patented Vapo burner. Users everywhere are delighted. Thousands of dealers now sell this year-around oil range.

Cuts down work in the kitchen

No more long hours in the kitchen over a slow cooking stove. No more soot on cooking utensils. No more smarting eyes. No more trouble and annoyance with wicks and chimneys. You turn the Vapo flame up or down with a lever valve, same as a gas range. It has no wick. It has no wick substitute.

Cook a week on 7 qts. of fuel

That is what users say they are doing with the Vapo. A single burner operates 32-36 hours on a gallon of kerosene with flame turned high. At simmering heat it gives 50-60 hours service.

Vapo burner generates gas

It converts kerosene into hydro-carbon gas which burns with a hot, clean, blue

flame which does not smell nor smoke nor smart the eyes. Flame can be turned from low to high and back again easily. This wonderful burner can't be clogged. Food or liquids can't boil over into burner and put out flame.

Bolo oven bakes and roasts same time

Movable Bolo plate makes oven big or little. Heat can be crowded into small space and intensified for quick baking and roasting. Makes two ovens in one. Slow and fast baking and roasting can be done at the same time. No other oil stove offers this advantage. Have your dealer show you this and other Vapo conveniences.

Write for folder describing the complete Vapo line. Sent free on request. Postal will bring it.

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A Practical, Proven Power Cultivator for
Gardeners, Suburbanites, Truckers,
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PRUNE TREE FROM GROUND

Do the work Faster, Better and in half the time
Write today for
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SAVE 50¢ A ROLL

Ward's RADIO ROOFING

Regular 85-pound standard weight

Don't confuse this full-weight 85-pound roofing with cheaper, lighter roofing sold at the same price.

Lay it over old roofs. There is enough in one roll to cover 100 square feet—yet a roll costs only \$1.85, with nails and cement.

Fire Underwriters Approve It

Radio Roofing is surfaced with red or green slate that beautifies as well as protects it. Resists fire. Not affected by heat and cold.

We guarantee it for 15 years—it should last many more.

Send for Free Sample

Examine it! Cut it open! Test it. Judge its remarkable quality. Write for free Building Material Catalogue.

Order the roofing you need. Catalogue No. 174-M00. State color—red or green.

Shipped From	Price Per Roll	Order From
Chicago	\$1.85	Chicago
St. Paul	1.85	St. Paul
Portland, Ore.	1.85	Portland, Ore.
San Francisco	1.85	San Francisco
Seattle	1.85	Seattle
Portland, Me.	1.85	Portland, Me.
Boston	1.85	Boston
Philadelphia	1.85	Philadelphia
New York	1.85	New York
Washington	1.85	Washington
San Antonio	1.85	San Antonio
Fort Worth	1.85	Fort Worth
Dallas	1.85	Dallas
El Paso	1.85	El Paso
Phoenix	1.85	Phoenix
San Diego	1.85	San Diego
Los Angeles	1.85	Los Angeles
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San Francisco	1.85	San Francisco

Add 10¢ for extra long nails
Shipping weight 85 pounds per roll!

WARD'S 85lb. Slate Surfaced ROOFING

\$1.85 PER ROLL

Guaranteed 15 Years

Montgomery Ward & Co.

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Extra
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TRADE MARK

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40% to
100% More
Zinc

Insulated Against Rust

The more zinc on the wire, the longer the wire fence will last.

Wires used in Zinc Insulated Fences receive more than **DOUBLE** the usual heat treatment in the *zinc bath*—the proper and only way to give a heavier coating of galvanizing with lasting quality.

This better process not only applies more zinc to the wire, but makes the coating uniform and inseparably a part of the steel. It insulates the wire with more zinc and with no cracking, flaking or peeling off.

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AMERICAN, ANTHONY, ROYAL, NATIONAL, ELLWOOD, U. S.

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We make only one grade of fence, every brand Zinc Insulated—and sell it at no higher price. Think of it!—fence that will outlast any fence you have used before—yet costs no more than ordinary grades of farm fence. Only our quantity production, vast resources and equipment make this offer possible.

Hang your fences on Arrow Tee-Steel Posts for greater strength, durability, dependability and long life. Built like a railroad rail—will not bend, twist, buckle or work loose. The large Anchor plate locks firmly into the ground while being driven, forming the most solid anchorage. Closely spaced notches enable you to attach every line wire to post, if desired. Many other big features.

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\$18.00

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Absolutely guaranteed Satisfaction assured. Send your remittance, and shipping instructions. We ship the same day order is received. Write for catalogue.

HAPGOOD COMPANY
109 Henry St., Alton, Illinois

NEWS FROM CLOVERLAND

WANT CANNING FACTORY.

A COMMITTEE of the Hancock Chamber of Commerce has been named for the purpose of investigating the practicability of establishing a pea-canning factory in that city. Mr. N. J. Brodner is chairman of this committee. The committee was charged with making an exhaustive study of the problem. There are financial as well as technical and agricultural aspects of the question to be considered. It was reported at a meeting of the Chamber in February that one manufacturer stood ready to invest \$10,000 in such a plant in Hancock, which requires in all about \$100,000, it is stated. The plant would require also 1,000 acres of peas.

HAS OWN LIMESTONE SUPPLY.

MR. JOHN SAUTTER of Manistiquette Township, Schoolcraft County, pulverized 25 tons of limestone, last fall, and distributed the product over his fields at the rate of about three tons per acre. The machine used to pulverize the limestone was purchased co-operatively by a group of Schoolcraft farmers. Several other farmers will apply pulverized limestone this season, it is stated. Limestone is readily procured in the western portion of the Upper Peninsula where some of it runs nearly 100 percent pure carbonate of lime. It is the same formation that appears in the northern portion of the Lower Peninsula.

DAIRY POPULATION OF CLOVERLAND.

THE State Department of Agriculture's Crop Report for February shows the number of milk-cows in the counties of the Upper Peninsula as follows: Alger, 2,430; Baraga, 3,950; Chippewa, 7,560; Delta, 7,310; Dickinson, 4,010; Gogebic, 3,300; Houghton, 9,170; Iron, 3,020; Keweenaw, 500; Luce, 700; Mackinac, 2,140; Marquette, 4,960; Menominee, 15,850; Ontonagon, 4,970; Schoolcraft, 1,930. The total is 71,800 for the Upper Peninsula.

TO LOOK AFTER CRIPPLED CHILDREN.

MARQUETTE COUNTY will have a free or crippled children's diagnostic clinic late in May or early in June. It will be conducted under the auspices of the Marquette Rotary Club along lines such as have secured such notable results in Chippewa County and in several counties of the Lower Peninsula. It is planned to bring a leading Detroit orthopedic surgeon to have charge of the examinations of these children.

At present the main effort of the Rotarians looks to the enrollment of as many of these children in town and country as can be found. The enrollment of rural children is in charge of Mr. L. R. Walker, county agricultural agent, assisted by Mrs. Lemn Johnson of Ishpeming, county nurse. L. A. Chase of Marquette is general chairman of the clinic committee of the Rotary Club. The individual Rotarians will be responsible for getting out of town children and their parents to and from the clinic and far carrying out the directions of the orthopedic surgeon. The Marquette Academy of Medicine will co-operate with the Rotarians in putting on the clinic.

If the results achieved in other counties of Michigan are a guide, it may be anticipated that there are many more children needing attention of this sort than is now supposed. It is first of all necessary to locate these children and determine what treatment

is desirable. In some cases this will be found to be hospital treatment, in other case education and training along lines that will enable the handicapped child to take care of himself.

As Marquette County is the largest county in the state, being larger than the state of Rhode Island, the job of canvassing the entire county for these children will not be an easy one. It is hoped that, through publicity, all the children of the county can be reached.

WILL DO MUCH CLEARINGS.

RECENTLY, Mr. L. F. Livingston, land-clearing specialist of the Michigan Agricultural College, made public figures showing the quantity of sodatol that has been ordered already by Upper Peninsula farmers. These orders aggregate 201,000 pounds.

These are distributed as follows: Ontonagon County, three carloads; Iron County, 20,00 pounds; Menominee, 43,000; Houghton County, two carloads. Houghton County's consignment, it is stated, will go mainly to farmers near Chassell and Aston. The Chassell State Bank has assisted in financing these orders.

In the past three years it is computed that an average of 235 pounds of war salvaged explosive has been distributed to every farm in Ontonagon County. It is estimated that each acre cleared requires about 25 pounds of these explosives. On this basis it is figured that each Ontonagon County farm has nine additional cleared acres on the average compared with three years ago. This means that the county as a whole has some 8,000 more cleared acres to its credit.

Farmers are advised to place their orders early before the state's allotment is exhausted. It is not believed that government stores of war salvaged explosives can last very much longer.

INTRODUCING GOOD DAIRY STOCK.

AS indicating the increasing interest in improved dairy stock in upper Michigan, Mr. Arthur Lonsdorf, county agricultural agent, of Dickinson County, announces that, this spring, 58 head of pure-bred sires will be purchased by his farmers. Of these, 20 will go to boys and girls' selecting club-members; the rest to the farmers themselves.

For the purpose of selecting these animals, a small group of farmers will co-operate in a personal tour of the best dairy sections of Wisconsin, which is easily reached from Dickinson County. A recent Schoolcraft County report states that there has been added six pure-bred Holstein bulls there in the past few months. There are at least a dozen such animals in the county and seven Guernseys.

Recent additions indicate that local interest in this movement is increasing. Schoolcraft has organized to do its best in the pure-bred sire campaign which the Upper Peninsula Development and the M. A. C. are staging this spring.

Mr. W. G. Gay, a Ewen, Ontonagon County farmer, has just added three registered Guernseys to his herd, one of which has a record 560 pounds of butter-fat in the year, it is stated. A second of these animals during a four-months test has made 85 to 90 pounds monthly. Mr. Gay has also introduced a pure-bred Guernsey bull to his community. Two farmers from Topax, the same county, have purchased pure-bred Guernsey bulls. All this is taken to indicate a healthy interest in better dairying in northern Michigan.

Cost of Grape Growing

Some Interesting 1923 Figures

By E. V. Root

THE heading suggests the big problem in any crop venture and the average farmer can not answer it, ordinarily because of a lack of a system of accounting. During the past few years much has been said and written of the immense profits in growing fruits especially grapes but anyone familiar with the situation knows that the average conditions have not been represented and that the average grower has just about managed to keep from losing his farm.

To one who would like to know the truth regarding the grape business as the average grower finds it the following figures compiled by R. F. Brooks of Lawton are interesting and instructive. Mr. Brooks came to Lawton four years ago and bought a farm on which was located a 15 acre vineyard. Mr. Brooks hires all of his work and a summary of his figures for 1923 show costs as follows:—Posts, \$73.50; Trimming, \$140.67; Tying, \$85.72; Fertilizer, \$120.64; Labor, \$414.69; Spray material, \$99.26; Other material, \$55.15; Picking and Hauling, \$285.90; Taxes and Insurance, \$34.50; Interest, \$180.00; Baskets, \$339.50. Total cost of growing 15 acres \$1,829.63, per acre cost, \$122.05.

From the 15 acres there was harvested 34 tons 900 lbs. of grapes which were sold by the Southern Michigan Association and brought Mr. Brooks a check for \$1,755.26. In other words the crop lacked \$74.37 of pay expenses.

These figures have been checked over by a number of growers and are regarded as conservative in fact some are too low the cost of spray material for instance being much below average. The crop is above a crop average in this belt and the price of a little more than \$50 per ton is about as high as can be expected. The only difference between the average grower and Mr. Brooks is that Brooks paid for his labor and knows what it cost him while the average grower would have contributed probably \$600 of this labor cost from his own family and would have written it into the cost of the crop and at the close of the season would have had around \$500 which would be considered as profit on the crop when as a matter of fact it represents day wages or a little less.

If the experience of Brooks represents an average experience and we think it does the logical conclusion is that there is no money to be made on a 2 or a 2½ ton yield. The operating expense can not be cut down; the yield must be raised.

The writer of this article has had a little experience with a small acreage of grapes during the past five years and the cost has been more than \$122 per acre per year, in fact much more but in this case the grapes have always paid a profit.

The writer does not think that on the average soil a fertilizing expense of \$8 per acre is anywhere enough and his own experience justifies the opinion that cost of \$25 per acre for fertilizer would have doubled the crop without increasing the operating expense and that this is the whole secret of making money out of the grape crop.

The fact remains that the average grower is getting just about day wages for his time. What the effect would be on the market should the yield be doubled is another question and one which we will see answered in a very few years for with grape roots cheap and a false impression prevalent as to the money in the crop the acreage will be doubled within the next three years.

FERTILIZING FOR BETTER FRUIT.

(Continued from page 463)
although frequently only one blossom

out of 50 or 100 will set fruit. Investigations have shown that there is a close relationship between the nitrogen supply in the twigs at blossoming time and the proportion of blossoms that set fruit. Fertilization, therefore, seeks to promote setting by insuring a good supply of nitrogen in the tissues at blossoming time. For this reason, fertilization at blossoming time or a few days before is the proper time for application.

The principles in fertilizing any of the tree fruits are very much the same. Better results can be expected in sod orchards than in tilled orchards. Old orchards that have been run down and neglected are most responsive.

Fertilizers for Grapes.

The yield of grapes in vineyards which are properly cultivated and in which a good spraying program is practised can be materially increased by proper fertilization. In practically all of the experiments on record, nitrogen fertilizers have given the greatest results. Increased wood growth, larger grapes, larger clusters, and better color of foliage are some of the effects of fertilization with high nitrogen fertilizers. It is often desirable to fertilize with phosphate and potash for the cover crop, either at the same time the nitrogen application is made or in another application. Whether or not a cover crop is grown, the application of the quarter to one-half pound of a good nitrogen carrier per vine is recommended. The application is best made shortly after the leaves unfold, or the amount can be divided into two applications, the second one to be made two or three weeks after the first. The fertilizer should be broadcast and harrowed in lightly.

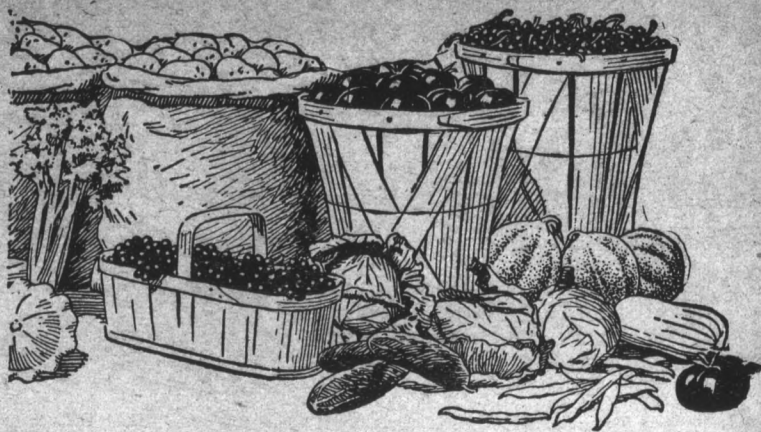
Fertilization of Cane and Small Fruits.

With cane and small fruits it is desirable to use more phosphorus and potash than in fertilizers for tree fruits. In fact, applications of nitrogen carriers alone are not necessary unless the color of the foliage is extremely poor, or the soil very light. A good fertilizer should contain from three to four per cent of ammonia, eight to twelve per cent of phosphoric acid, and four to eight per cent of potash. For strawberries, the practice of some successful growers is to broadcast acid phosphate or a high analysis complete fertilizer before setting out the plants, and then a top dressing of a high nitrogen complete fertilizer each bearing season.

In any fertilizer for fruits, too much nitrogen has a tendency to produce excessive foliage and wood. Phosphorus, on the other hand, is thought to promote seed or fruit production. The function of potash is open to question. Some growers have used potash with good results, but the trend in fertilization seems to be away from the use of this plant food for fruits.

WILL STIMULATE ASPARAGUS CULTURE.

LAST year the Paw Paw preserving company put up a small pack of asparagus. With the company it was an experiment but the success of the venture was far beyond their hopes, the product being their "best seller." This year contracts have been written for practically all of the asparagus grown in the vicinity which is around 55 acres and are urging farmers to plant more of this crop. Asparagus is a crop easily cared for and brings in money in the spring ahead of my other crop. It takes a bed some time to become established, not usually being regarded in full bearing short of the fifth season but when once established it lasts indefinitely.—E. V. R.



Pyrox the money maker

DON'T let insects and plant diseases rob you of your crop profits. Spraying potatoes, other vegetables and small fruits with Pyrox costs so little, yet adds definitely to the returns.

Pyrox also saves the time, labor, muss and uncertainty of home-made sprays. Mix Pyrox with water and it's ready. Milled like fine paint; paste form. Won't clog finest nozzles. Covers foliage completely—and sticks.

Pyrox is a powerful FUNGICIDE, extra high in copper, perfectly blended with a deadly POISON. Not only kills leaf-eating insects and repels flea beetles and leafhoppers, but controls rusts and blights. Invigorates the plant too; lengthens the growing period; increases yield; improves quality. Jars, cans, drums and barrels.

You can now buy all your spray materials from the complete Bowker Line

Bowker's Arsenate of Lead—Dry powdered and paste. Bowker's Calcide—Highgrade calcium arsenate; quick-acting. Bowker's Bodo—A ready-mixed Bordeaux, 10% copper. Bowker's Lime Sulphur—Concentrated liquid and dry. Bowker's Dusting Materials—Sulphur, Copper, etc. Nicotine Sulphate.

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ASPARAGUS, RHUBARB, Blackberries, Currants, California Privet roots and aster seed. Write for prices. CHAS. L. LUCAS, PERRY, OHIO.

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Choice Strawberry Plants \$3.75 per 1,000. All standard varieties. Guaranteed first-class or money refunded. Catalog. MRS. FILENA WOLF, Dept. G, Allegan, Mich.

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A grade Berry Baskets (wood) and 16 quart crates. 40% cash discount till May first. Send for price card. Bee supply catalog for the asking. General agents in Michigan for Root's goods.

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Orchardists send your lists of wants stating, varieties, size, age, and quantity wanted for SPECIAL PRICES, send today also ask for General Tree, Plant & Seed Catalog.

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Equipped with a combination nozzle for light or heavy mixtures. Leak-proof shut-off. Can be furnished with an extension for spraying fruit trees. Free Book—"When, What and How to Spray." Write today for your copy or ask your Home Town Hudson Dealer.

The Hudson Misty does fine work on small jobs. Thousands in use. Strong, double seamed, leakproof.

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No. 309. A new pattern, hammer forged, and tempered to hold its edge a long time. Unbreakable frame, non-pinching handles. Blade removable, for sharpening or replacement. \$2.50.

No. 209. A one-piece tool, with die-pressed handles and hammer-forged blade. Extra wide bevel, insuring easy cutting. Locking device to hold shears in closed position. Non-pinching handles. \$1.50.



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RURAL HEALTH

By Dr. C. H. Lerrigo

DON'T SHUT OUT THE DAYLIGHT.

MARY DRAKE was not an old woman—only just the other side of forty. It was annoying to find that her work was slowing up because she no longer could see as of old. She said as much to the doctor who stood in her kitchen for a moment after dropping in to see Grandpa Drake.

The doctor's reply was to reach his long arm up to the top of the dark green window shade and lift it from its fastenings; then he crossed to the north window and did the same thing there. To Mary's great surprise her kitchen things stood out as if suddenly illuminated. She had not realized that the two shades would make such a difference.

"I'm getting to be quite a crank about these dark green shades," said the doctor. "In half the kitchens and living rooms of this country women are pottering around in a half-light because they deliberately shut out from twenty-five to fifty per cent of the daylight with the darkest shades they can buy on the market. If you have to have shades, why not buy them of white, thin, translucent material, such as will admit and diffuse all the light possible when the sun is shining directly upon them, and roll them up out of the way when there is no sun."

"We might as well, doctor," admitted Mary. "I suppose most of use use dark shades partly because we have become used to them and partly because they don't show the dirt. But we could use light ones. We have to have shades, you know. They serve for other things than to keep the sun from looking in."

"Then why not hang them at the lower part of the window. It's quite possible. Don't you realize that the place from which you want light to shine on your work is from above. You may blot out the entire lower half of your window without noticing the loss if you will just have a few inches of clear light from the upper part. In doing any work your eyes naturally look down rather than up. Ever notice that? Try reading a newspaper held as much above your eyes as you would usually hold it below and you will realize that your field of vision is much better downward than upward. Use the upper part of your windows. Strip them clear of everything. Let the light come in and you will not realize that you are on the better side of forty."

HAS DANDRUFF TROUBLE.

I am most severely troubled with dandruff and itching scalp. Is there any reliable remedy for it? I am suspicious of patent dandruff removers and scalp tonics as being either injurious to the scalp or else harmless to dandruff. Are they? Is there any home remedy that is satisfactory?—B. G. M.

Dandruff is much like other troubles in the fact that different cases require different remedies. Many cases are helped by a solution of 20 grains of Resorcin to one ounce of water. Shampoo the scalp every night keeping it loosened up. Brush the hair five minutes night and morning.

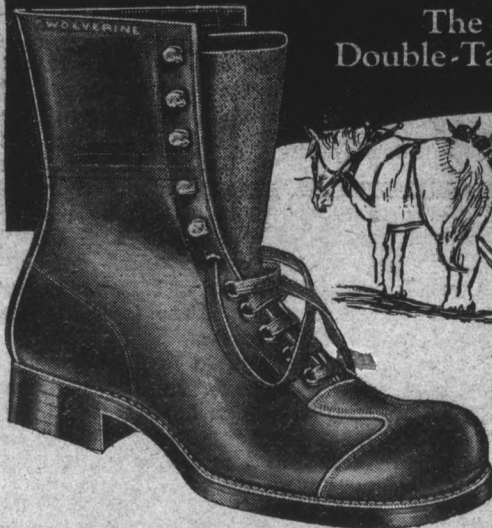
BEWARE OF THESE SHAMS.

I would like to have you answer in your column the booklet I have enclosed on removing superfluous hair. I have cut out the page with order blank on it and will be waiting for your answer before ordering.—In need.

I think the cover page typifies the book. It shows a very pretty woman pictured on one side with a complete mustache on the other with a clean fresh skin. It is so false that a child should be able to see the delusion and the rest of the book is like it. Save yourself the money.

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Always dries out soft

Here's a double-tanned horsehide work shoe that will never get stiff or hard. This horsehide, double-tanned by our own private process in our own tanneries, dries out as soft as velvet. You can soak these shoes in mud, water and slush. They will always dry out soft and pliable.

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wear at least 1,000 miles. But customers tell us they wear 3,000 and 4,000 or more. We are frequently told they outwear three ordinary pairs.

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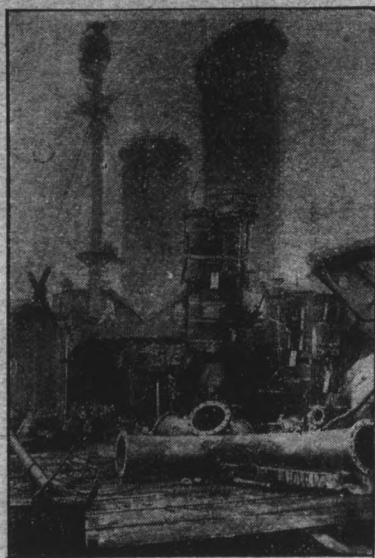
Beware of Imitations!



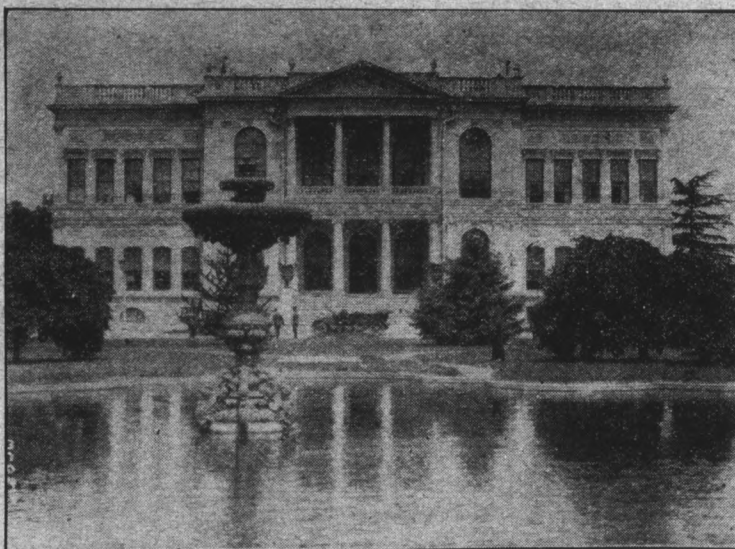
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WORLD EVENTS IN PICTURES



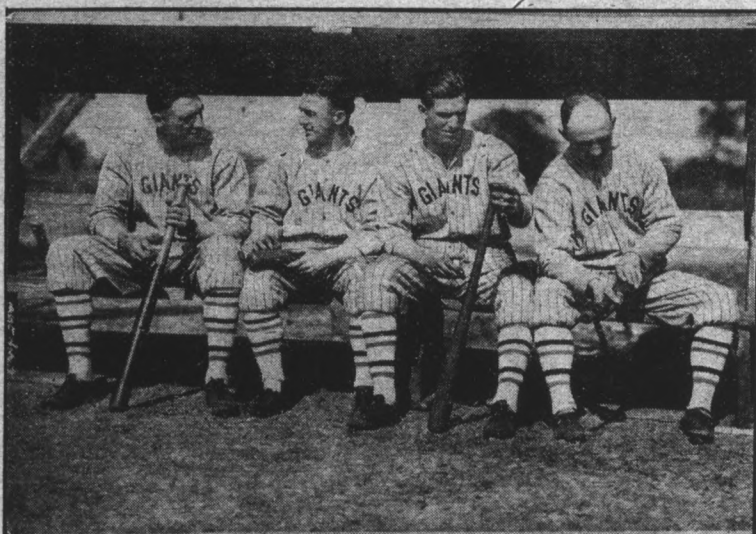
Japanese battleship Katori is being ripped apart in compliance with limitation of naval armaments.



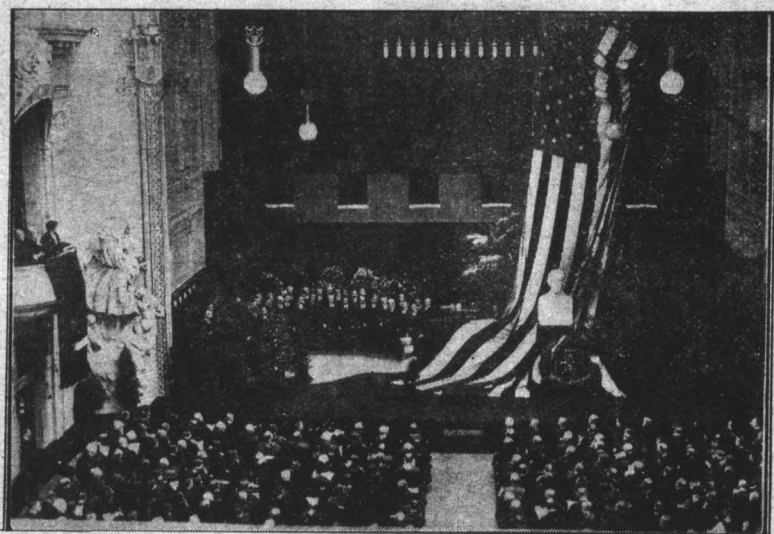
Since the Caliph (religious chief of Turkey) has been deposed, it is a problem of the Modernists how to dispose of this huge palace and five others, his four wives and his 800 concubines.



President Alfredo Zayas, of Cuba, congratulates winner in army and navy horsemanship competition.



The Giants' infield are taking a rest. They are: Kelly, first base; Frisch, second base, the new Giant captain; Jackson, short stop; and Groh, third sacker.



Solemn funeral services were held in the city hall at Prague by the government of Czechoslovakia for ex-president Woodrow Wilson. Foreign minister, Edward Benes, delivered the address.



Miss Mollie Panter-Downes, at the age of sixteen, is a successful novelist, and has won high praise from English critics.



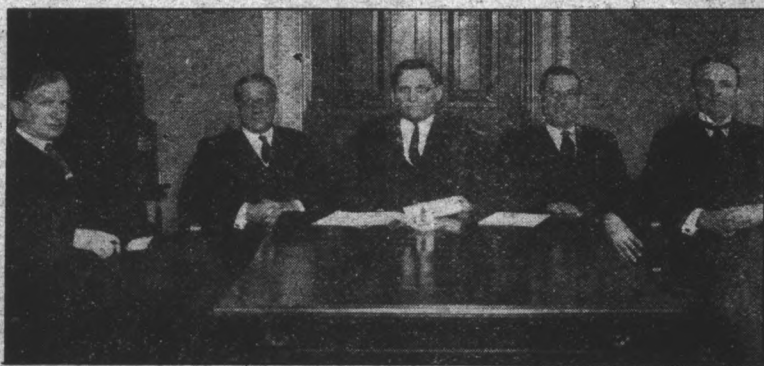
Senator Brookhart, of Iowa, heads Senate committee investigating naval oil lease scandals.



Col. C. R. Forbes (left) and his attorney, Col. J. H. Easby Smith are preparing statements in regard to the attack on Forbes.



Abdul Medjid Effendi has been deposed by the government of Turkey as Caliph of Islam, and is seen starting on a ride to his foreign exile.



This special Senate Committee has been appointed to inquire into the acts of Attorney-General Harry V. Daugherty while holding the office of district-attorney.

TWO pictures flashed across Houston's brain; one of a snowy sawmill with the force working day and night, when all the surrounding country cried for help, working toward its selfish ends that it might have a supply of necessary lumber in case a more humane organization should fail; another of carload after carload of necessary machinery, snow-covered, icebound, on a side-track at Tollifer, with the whole, horrible, snow-clutched fierceness of the Continental Divide between it and its goal.

"I hope so!" he exclaimed fervently. "I hope so!"

Then, swept along by hurrying forms, they went on toward the station house, there to receive the confirmation of the glad news, to shout until their throats were raw, and then, still with their duties before them radiate once more on their missions of mercy. For the announcement of intention was no accomplishment. It was one thing for the snowplows and the gangs and tremendous engines of the M. P. & S. L. to attempt to open the road over the divide. But it was quite another thing to do it!

All that day Houston thought of it, dreamed of it, tried to visualize it,—the fight of a railroad against the snows of the hills. He wondered how the snowplows would work, how they would break through the long, black snowsheds, now crammed with the thing they had been built to resist. He thought of the laborers; and his breath pulled sharply. Would they have enough men? It would be grueling work up there, terrific work; would there be sufficient laborers who would be willing to undergo the hardships for the money they received? Would—

In the night he awoke, again thinking of it. Every possible hand that could swing a pick or jam a crowbar against grudging ice would be needed up there. Every pair of shoulders willing to assume the burdens of a horrible existence that others might live would be welcomed. A mad desire began to come over him; a strange, impelling scheme took hold of his brain. They would need men,—men who would not be afraid, men who would be willing to slave day and night if necessary to the success of the adventure. And who should be more willing than he? His future, his life, his chance of success, where now was failure, lay at Tollifer. His hands would be more than eager! His muscles more than glad to ache with the fatigue of manual labor! Long before dawn he rose and scribbled a note in the dim light of the old kerosene lamp in the makeshift lobby, a note to Baptiste Renaud:

"I'm going over the range. I can't wait. They may need me. I'm writing this, because you would try to dissuade me if I told you personally. Don't be afraid for me—I'll make it somehow. I've got to go. It's easier than standing by."

"Houston."

Then, his snowshoes affixed, he went out into the night. The stars were shining dimly, and Houston noticed

The White Desert

By Courtney Ryley Cooper

them with an air of thankfulness as he took the trail of the telephone poles and started toward the faint outline of the mountains in the distance. It would make things easier; but an hour later, as he looked for a dawn that did not come, he realized that it had only a jest of the night. The storm clouds were thick on the sky again, the snow was dashing about him once more; half-blindly, gropingly, he sought to force his way from one pole to another,—in vain.

He measured his steps, and stopping, looked about him. He had traveled the distance from one pole to another, yet in the sweep of the dart-

there came no answer. He shouted; still no sound came from within, and he turned the creaking, protesting knob.

The door yielded, and climbing over the pile of snow at the step, Houston guided his snowshoes through the narrow door, blinking in the half-light in an effort to see about him. There was a stove, but the fire was dead. At the one little window, the curtain was drawn tight and pinned at the sides to the sash. There was a bed—and the form of some one beneath the covers. Houston called again, but still there came no answer. He turned to the window, and ripping the shade

packages of provisions upon the shelf over the small wooden table, evidence that someone other than the woman herself had looked after the details of stocking the cabin with food and of providing against emergencies. At least a portion of the wood as he shoved it into the stove crackled and spit with the wetness of snow; the box had been replenished, evidently within the last few days.

Soon water was boiling. Hot cloths went to the woman's head; quietly, reverently, Barry had taken the still, small child from the tightly clenched arm and covered it, on the little table. And with the touch of the small lifeless form, the resentment which had smoldered in Houston's heart for months seemed to disappear. Instinctively he knew what a baby means to a mother—and she must be its mother. He understood that the agony of loss which was hers was far greater even than the agony which her faithlessness had meant for him. Gently, almost tenderly, he went again to the bed, to chafe the cold thin wrists, to watch anxiously the eyes, then at last to bend forward. The woman was looking at him, staring with fright in her gaze, almost terror.

"Barry—" the word was more of a mumble. "Barry—" then the eyes turned, searching for the form that no longer was beside her. "My— my" Then, with a spasm of realization, she was silent. Houston strove dully for words.

"I'm sorry—Agnes. Don't be afraid of me. I'll get help for you."

"Don't." The voice was a monotone, minus expression, almost minus life. The face had become blank, so much parchment drawn over bone. "I've been sick—my baby—where's my baby?"

"Didn't you know?"

"Yes," came at last. There was the dullness that comes when grief has reached the breaking point. "Dead. It died—yesterday morning."

Houston could say nothing in answer. The simple statement was too tragic, too full of meaning, too fraught with the agony of that long day and night of suffering, for any reply in words that would not jar, or cause even a greater pang. Quietly he turned to the stove, red-hot now, and with snow water began the making of gruel from the supplies on the shelf. Once he turned, suddenly aware that the eyes of the woman were centered in his direction. But they were not upon him; their gaze was for one thing, one alone,—that tiny, covered form on the table.

An hour passed silently, except for the trivialities of speech accompanying the proffered food. Then, at last, forcing himself to the subject, Houston asked a question:

"Where is he?"

"Who." Sudden fright had come into the woman's eyes. A name formed on Houston's lips, only to be forced back into the more general query:

"Your husband."

SPRING DAYS

By LeRoy W. Snell



Winter's torn his coat all ragged. An' Spring's peepin' through the tear. Sort'o shy-like yet, but smilin'. 'Nought ter soften up the air.

Sap's a climbin', an' the willows By the creek's a-turin' red. Sapsuck's thumpin' on the maples. Brook's a gurglin' in its bed.

Oughter be ter work I reckon. Fences need some mendin' too, An' I better fix that tractor. Wonder what's the first to do?

Seems like Spring weren't made fer labor.

Days like this I feel that way; Sort'o like ter lean an' saunter, Neither keer ter work nor play.

Spring work's layin' 'round permiscus.

Things in town I'd oughter get. Guess I'll hike down ter the river, See 'f the suckers 'runnin' yet.

ing sheet of white he could discern no landmark, nothing to guide him farther on his journey. He floundered aimlessly, striving by short sallies to recover the path from which the storm had taken him but all to no purpose. If dawn would only come!

Again and again, hardly realizing the dangers to which he was subjecting himself, Houston sought to regain his lost sense of direction. Once faintly, in the far-away, as the storm lifted for a moment, he thought that he glimpsed a pole and hurried toward it with new hope, only to find it a stalwart trunk of a dead tree, rearing itself above the mound-like drifts. Discouraged, half-beaten, he tried again, only to wander farther than ever from the trail. Dawn found him at last, floundering hopelessly in snow-screened woods, going on toward he knew not where.

A half-hour, then he stopped. Fifty feet away, almost covered by the changing snows, small cabin showed faintly, as though struggling to free itself from the bonds of white, and Houston turned toward it eagerly. His number hands banged at the door, but

from its fastenings, once more sought the bed, to bend over and to stare in dazed, bewildered fashion, as though in a dream. He was looking into the drawn, haggard features of an unconscious woman, the eyes half-open, yet unseeing, one emaciated hand grasped something that was shielded by the covers. Houston forced himself even closer. He touched the hand. He called:

"Agnes!"

The eyelids moved slightly; it was the only evidence of life save the labored irregular breathing. Then the hand moved, clutching. Slowly, tremblingly, Houston turned back an edge of the blankets,—and stood agast.

On her brest was a baby—dead!

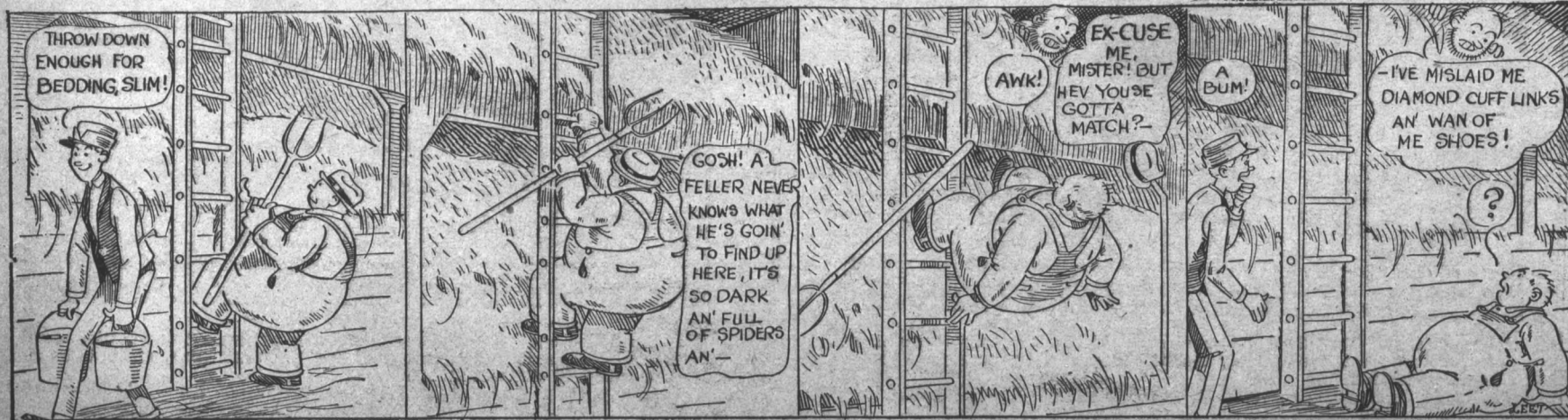
CHAPTER XX

There was no time for conjectures. The woman meant a human life,—in deadly need of resuscitation, and Barry leaped to his task.

Warmth was the first consideration, and he hurried to the sheet-iron stove, with its pile of wood stacked behind, noticing, as he built the fire, cans and

AL ACRES--Al Should Install Electric Lights in the Haymow Boudoir

By Frank R. Leet.



She smiled faintly.

"You've got me, haven't you, Barry?" A half-hysterical tone came now. "You know a lot—and you want the rest, so you can pay me back, don't you? Oh," and the thin fingers plucked at the bedclothes. "I expected it! I expected it! I knew sooner or late—"

"If you're talking about me, Agnes—and what I've been led to believe, we'll save that for a future time. I think I'm enough of a man not to harass a person in time of grief."

"Coals of fire, eh?" A tinge of her old expression had come back, with returning strength.

"Nothing of the kind. I simply wanted to help you—because you're a woman in trouble. You're sick. Your baby's—gone. If I can get your husband for you, I—"

But she shook her head, suddenly weak and broken, suddenly only what Barry was trying to make of her in his mind, a grieving woman, in need.

"We're—not married. You'll know it sooner or later. I—I don't know where he is. He was here three days ago and was coming back that night. But he didn't. Maybe he's gone—he'd threatened it."

"He? You mean—"

She pressed her lips tight.

"I'm not going to tell—yet. You've got to do something for me first. I'm in trouble—" she was speaking rapidly now, the words flooding over her lips between gasps, her eyes set, her hands knitting. "My baby's dead. You know that, don't you?" she asked suddenly, in apparent forgetfulness of any previous conversation. "My baby's dead. It died yesterday morning—all day long I held it in my arms and cried. Then I slept, didn't I?"

"You were unconscious."

"Maybe I'm going to die." There was childishness in the voice. "Like my baby. I baptized her before she went. Maybe I'm going to die too."

"I hope not, Agnes."

"You'd like to see me die!" The frail bonds of an illness-ridden brain were straining at their leash. "I can see it in your eyes. You'd like to see me die!"

"Die?" he could think of nothing else.

"Because—" and then she stopped. "No—you're trying to get me to tell—but I won't; I'll tell when you come back—I'll tell what I said and did when you bring me the note from the priest. You want me to tell, don't you? Don't you? That's what you came here for. You found out I was here. I did he tell?" she asked sharply.

Barry shook his head.

"I don't now who you mean, Agnes."

"No? I think you're—"

"I was on my way over the range. I got lost in the storm and stumbled in here." He looked out. "It's let up some now. Maybe I could find my way back to town—you must have a doctor."

"I don't want a doctor! I want to go—with my baby. And I don't want him to know—understand that—" with a struggle she raised to one elbow, eyes suddenly blazing with the flashes of her disordered brain, features strained and excited. "I don't want him to know! He ran away and left me for three days. The fire went out—my baby—" hysterical laughter broke from her dry lips—"My baby died, and still he didn't come. He—"

"Agnes!" Houston grasped her hands. "Try to control yourself! Maybe he couldn't get back. The storm—"

"Yes, the storm! It's always the storm! We would have been married—but there was the storm. He couldn't marry me months ago—when I found out—and when I came back out here! He couldn't marry me then. 'Wait'; that's what he always said—'wait'—and I waited. Now—" then the voice trailed off—"It's been

three days. He promised to be back. But—"

Houston sought to end the repetition.

"Perhaps I could find him and bring him here."

But it was useless. The woman drifted back to her rambling statements. Laughter and tears followed one another in quick succession; the breaking of restraint had come at last. At last she turned, and staring with glazed eyes into those of Houston, burst forth.

"You hate me, don't you?"

"I—"

"Don't deny it!" Querulous imperiousness was in the voice. "You hate me—you'll go back to Boston and tell my mother about this. I know—you've got the upper hand now. You'll tell her why I came out here—you'll tell her about the baby, won't you? Yes, you'll—"

"I'll tell nothing of the sort, Agnes. I don't fight that way. You ought to know that. You've been my enemy, I'll admit. I've felt bitter, terribly so, against you. I believed that you used my trust to betray me. But I believe I know the reason now. Beside, the harm's done. It's in the past. I fight men, not women."

"Do you want help?" A thin hand stretched out. "Will you give me a promise—if I give you one?"

"About what, Agnes?"

"My baby. You—you're not going to let it stay there? You're—"

"I hardly know what to do. I thought after you were better, I'd—"

"I'm better now." She tried to rise.

"I'm better—see? I've more strength. You could leave me alone. I—I want you to take my baby."

"Where?"

"Where she can sleep in peace—in hallowed ground. I—I want a priest for her. Tell him that I baptized her Helena."

"Yes. And the other name?"

A weird laugh came from the colorless lips.

"She hasn't one."

"But—"

"Then use mine—so you'll have evidence that I'm not married. Use mine, if that's the kind of a man you are—so you can go back and tell them—back home—that I—I—" The last band had snapped. She caught at him with clawing hands, her eyes wild, her teeth showing from behind tightly drawn lips. "Torture me—that's it—torture me! At least, I didn't do that to you! I told you that I believed in you—at least that cheered you up when you needed it—I didn't tell you that I believed you guilty. Did I? I didn't continually ask you for the name of the man you'd killed? Oh, there were other things—I know there were other things—" the lips seemed to fairly stream words, "but at least, I didn't torture you. I—I—"

Then she halted, for the briefest part of a moment, to become suddenly madly cajoling, crazily cunning:

"Listen, Barry, listen to me. You want to know things. I can tell them to you—oh, so many of them. I'll tell them too—if you'll only do this for me. It's my baby—my baby. Don't you know what that means? Won't you promise for me? Take her to a priest—please, Barry—for what you once thought I was? Won't you, Barry? Haven't I had punishment enough? Did you ever lie all day and listen to the wind shriek, waiting for somebody who didn't come—with your dead baby in your arms? Do you want to punish me more, Do you want me to die too—or do you want me to live and tell you why I did the things I did? Do you? Do you want to know who was back of everything? I didn't do it for myself, Barry. It was someone else—I'll help you, Barry, honestly I'll help you."

"About the murder?" Houston was leaning forward now, tense, hopeful. But the woman shook her head.

(continued on page 477.)

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Abraham to Solomon

Our Weekly Sermon—By N. A. McCune

WHEN you begin to read the Bible and go on, through Genesis, Exodus and the other books that deal with the early history of the Hebrew people, you are reading literature set in a rural background. It is flocks and herds, the migrations of nomadic tribes, the cultivation of crops, wars of one tribe with another. The scenery is all out-of-doors, under the broad sky, open to the winds that blow. The great stories of adventure are stories of the outdoors. Joseph goes to find his brothers who are shepherds, is sold to a caravan travelling on camels. The climax of his biography is connected with the grain crop of Egypt, which was foreglimpsed in



a dream of fat cattle and lean ones. Jacob steals his birth right when his brother comes in, hot and sweating from the hunt, and Jacob makes his money by his multiplying

flocks of sheep, camels and asses. Exodus is one of the greatest tales of adventure ever written, and it is couched in terms of marching emigrants, hunger, thirst, wells of water, shade, sand serpents, battles, tired limbs and homesick hearts. Numbers continue the narrative, while Leviticus gives the regulations governing social life, including agricultural laws.

Joshua relates the experiences of the emigrants settling Canaan, and naturally it is a book of action. It moves rapidly, from first to last. Judges is a remarkable collection of stories of war and personal heroisms, perfectly told, from "Shamgar, the son of Anath, which slew of the Philistines six hundred men with an ox goad," to Samson the giant and practical joker, who was at last captured and humiliated. The whole setting of Ruth is pastoral; drouth, harvest, reapers, the farm manager, threshing floors, are the nouns on which the story rests. The books of Samuel go on, describing life in the same simple terms. The shepherd lad becomes king, is song writer, musician and warrior. And, you will note, that as long as this simple form of social life continued, the people were reasonably prosperous. The evil hour when a luxury-loving monarch brought in foreign ideas of greatness, organized a vast army, and imported foreign wives, and attempted to cut a dash in the world. For a thousand years, Hebrew writers continued to look back longingly to the days of David. When the millennium came, said they, Messiah would sit on the throne of David, and of his kingdom there would be no end.

OF course, the development of the people necessitated large cities, and the abandonment of the free, roving out door existence of the earlier centuries. But as the rural population diminished, or was oppressed, the nation suffered in proportion. Commercial Canaan was not as peaceful or as prosperous as agricultural Canaan.

If these reflections are worth setting down, they come to this: There must be a rural society in America that is stable, inviting and remunerative. It is not all crops, self-binders, alfalfa and pure bred live stock. Men have all these, and when they have accumulated a competency, move to town. Country life must have the romance, the beauty, the poetry, that makes up life. When one speaks of romance and poetry, he gets a quick reaction from some man in overalls, who says, "Yes, poetry, getting up at five a. m., to milk, and working twelve hours in the field. Small poetry there." To which the city man may answer, "Yes, romance in the city, getting up in a stuffy room with hardly enough space in which to

put on your clothes, going down six floors to the street, and riding in the elevated for an hour, with two fat women sitting on your lap, to get to your day's work. I'd like the looks of a real cow or even a porker." The new rural life will come, in time. It must.

IN all the wanderings of the people, the crude struggle for justice, the defense of the country against foreign foes, the teachings of Moses and Samuel and the priests, there was running a great Divine Purpose. The purpose was often forgotten in the pressure and trials of frontier life, but it was never absent. Men might forget, but not God. Leaders might fall away and drag multitudes after them, but he that keepeth Israel shall neither slumber nor sleep. The purpose has been defined as "a holy people serving a holy God in a holy land." But there was more to it than that. The holy people was supposed to so provide a groundwork of willingness to cooperate with God, that through it all mankind might be blessed. "In thee shall all nations of the earth be blessed," was the word to Abraham.

Sometimes it is difficult to see purpose of any sort, so big is the world, and so many are the comings and goings of men. You have, perhaps, journeyed through a modern automobile factory. In one room there are men stripped to the waist working in front of blast furnaces, which heat metal until it can be poured like soup. In another room are huge vats of paint in which wheels are dipped by machinery. And in a third room are long rolls of canvas, being rapidly cut in various shapes and sewed together. Nothing in all these departments looks like an automobile. But automobiles are growing all the time, faster than Canada thistles. At the far end of the factory, the almost-cars move along on moving platforms, with the last touches being applied. Every man's work counts, in the long process. A piece of carelessness that is not detected by the inspector may cause the purchaser volumes of trouble some cold rainy night, twelve miles from the nearest village. We do not know when we are following God's plans. Jacob wrestles alone, not thinking of any far-reaching effect of his vigil, yet the results were wide and deep. He was working with the Great Plan. Tiny Samuel responds to the ghostly summons, and becomes a spiritual pathfinder for his people. David, the ruddy shepherd lad, thinks only of his duty, but he becomes a builder, who follows the divine blue print.

MODERN instances are not hard to discover. A minister once visited a home where there was much dirt and disorder. He left some tracts. Weeks later he returned. The place had undergone a transformation. The yard had been raked, the fence painted, the house cleaned. Which tract had helped her? None of them, she said. She had run across Longfellow's poem, "Maidenhood," in an old paper. It had taken her back to girlhood days, when she lived happily with her mother, in the attractive home on the edge of the village. A man once lost by death a beautiful daughter. He resolved to interest himself in other girls, lost in sin and helplessness, and he founded the Florence Crittenden missions. His work has spread across the continent and been as the shadow of a great rock in a weary land.

SUNDAY SCHOOL LESSON FOR MARCH 30.

SUBJECT:—Abraham to Solomon.

GOLDEN TEXT:—Jehovah is merciful and gracious, slow to anger and abundant in loving kindness. Ps. 103:8.



Doings in Woodland

Bennie Fox Finds That It Doesn't Pay to Cheat

O H, Bennie, we are just choosing sides for a game of pullaway," said little Jackie Rabbit, running into the schoolroom. "Come out and play with us. I want you on my side."

(You remember Jackie Rabbit was Rolly Rabbit's little nephew.)

Well, now Bennie Fox knew that he didn't have but one of his arithmetic problems for his lesson that day and that he should finish them before he went out to play. But pull-away was his favorite game. He liked to play it

Bennie gave the answer which happened to be 15.

"Correct, Bennie. Please put your problem on the board so the rest may see. Sandy you may put on the next one," said the teacher.

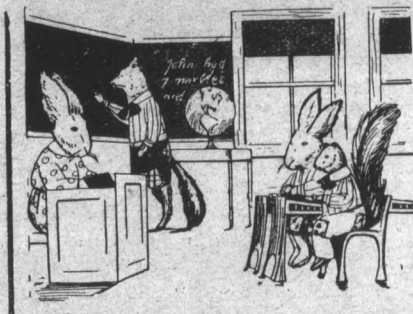
Bennie went to the board with a quaking heart. Oh, how he wished he knew how to do that problem. In a few minutes Sandy had his problem neatly done and was back in his seat. But still Bennie stood at the board, unable to do even the first part of his problem.

"Bennie, I do not see how you knew the answer if you can't work the problem," said Teacher Rabbit.

"I bet he copied his problems," said little Jackie Rabbit.

And then how Bennie did feel. Everyone in the school knew that he had cheated. He hung his head and went back to his desk.

But he thought he had learned a good lesson, even better than his daily arithmetic lesson, for he resolved that no matter how poor his lessons would be, he would never cheat again.



Bennie couldn't do his problem.

more than any other game he knew.

"Sandy Squirrel has all his problems worked," he thought to himself. "I'll just look on his paper." So he skipped out to play pull-away, and left his lessons undone.

They played and played, but the time seemed short when the bell called them back to their lessons.

Bennie sat right beside Sandy Squirrel, so he copied all the problems and slipped the paper back in Sandy's desk.

At class, Teacher Rabbit called on Bennie first.

"What is your answer for the first problem?" she asked.

LIKES TO SKATE.

My brother and I read the woodland stories and like them very much. I am nine years old and in the third grade. They serve one hot dish to us every day at school. The hay has been frozen over a month. We have lots of fun on the ice.

Margaret L. LaBott.

FROM A FOURTH GRADER.

Dear Aunt Martha:

I am nine years old. I am in the fourth grade. I live on a farm. We have three puppies and one kitten for pets. We have two little calves. We have two hundred hens. Yours truly, Emma Bohlman, Pontiac Mich., R. 2.

The White Desert

(Continued from page 475.)

"No—I don't now about that. Maybe you did it—I can't say. It's about other things—the lease, and the contract. I'll help you about that—if you'll help me. Take my baby—"

"And keep your secret, Agnes? Is that it?"

"Will you?" The woman's eyes were gleaming strangely. "My mother does not know. She's old—you know her, Barry. She thinks I'm—what I should have been. That's why I came back out here. I—I"

The man rose. He walked to the window and stood for a long time looking out, trying to close his ears to the ramblings of the woman on the bed, striving to find a way to keep the promise she sought. For just a moment the old hatred flooded through him, the resentment toward this being who had been an integral factor in all the troubles which had pursued him in his efforts to beat back to a new life. But as swift as they came, they faded. No longer was she an enemy; only a broken, beaten woman, her empty arms aching as her heart ached; harassed by fears of exposure to the one woman in whom she still desired to be held in honor, of the whereabouts of the man who had led her on through the byways of love into a dismal maze of chicanery. Only a woman, ill, perhaps dying. A woman crying out for the one boon that she could ask of a person she knew to distrust and despise her, seeking the thing that now was her greatest desire in the world, and willing to promise—whether truthfully or not, Barry had no way of telling—to reveal to

him secrets of the past, if he would but comply. Was she honest? As he stood there looking out at the snow, it seemed to make little difference. Was she sincere? He would strive to aid a dumb brute in distress.

"I'll promise, Agnes. If you want to help me afterward, well and good. If not—you are free to do as you please. I suppose you want her dressed before—"

"Yes." The woman had raised eagerly. "There are clothes—she's never had on—in the bottom drawer of that old bureau. Take them with you. Then look in a box in the top drawer. You'll find a crucifix. They—they might want to put it on her."

She sank back in the bed, and Barry went to his task of searching the drawers of the rickety old bureau. In a mass of tangled, old-fashioned jewelry, he found the crucifix, its chain broken and twisted, and placed in a pocket. Then he turned to the grimmer task—and the good-by. A half-hour later, white-featured, his arms cupped gently about a blanket-wrapped form, he stepped forth into the storm, and bending against the wind, turned toward the railroad in obedience to the hazy directions of the sobbing woman he had left behind.

The snowfall was lighter now; he could find his way more easily. A half-hour passed, and he stopped, kneeling and resting the tiny, still bundle upon his knees to relieve his aching arms. Then on again in plodding perseverance,—fulfilling a promise.

(Continued next week.)

Michigan Farmer Pattern Service

Send twelve cents in either stamps or coin to the Pattern Department, Michigan Farmer, Detroit, Michigan, for any of these patterns. Be sure to state size, and write address plainly to avoid delay.



4681. Girls' Coat.

Cut in 5 Sizes: 6, 8, 10, 12 and 14 years. A 12 year size requires $3\frac{1}{4}$ yards of 40 inch material. Price 12c.



4686.

4686. Girls' Dress. Cut in 4 Sizes: 6, 8, 10 and 12 years. A 10 year size requires $3\frac{1}{2}$ yards of 36 inch material. Price 12c.



4673

4670. Dress for Misses' and Small Women.

Cut in 3 Sizes: 16, 18, and 20 years. An 18 years size requires $4\frac{1}{4}$ yards of 36 inch material. The width of the skirt at the foot is $1\frac{1}{2}$ yard. Price 12c.



4670



4694. Boys' Suit.

Cut in 3 Sizes: 3, 4 and 6 years. A 4 year size requires $3\frac{1}{4}$ yards of 27 inch material. Price 12c.



4693

4693. Child's Dress. Cut in 3 Sizes: 1, 2, 3 and 6 years. A 2 year size requires $1\frac{1}{4}$ yard of 27 inch material. Price 12c.



4687

4687. Girls' Dress. Cut in 4 Sizes: 8, 10, 12 and 14 years. A 10 year size requires 4 yards of 36 inch material. Price 12c.



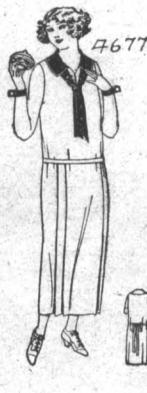
4683

4683. Child's Dress. Cut in 4 Sizes: 4, 6, 8 and 10 years. A 6 years size requires 3 yards of 32 inch material. Price 12c.



4674. Ladies' Dress.

Cut in 6 Sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. A 38 inch size requires $6\frac{1}{2}$ yards of 40 inch material. The width of the skirt at the foot is $1\frac{1}{2}$ yard. Price 12c.



4677

4677. Dress for Misses' and Small Women.

Cut in 3 Sizes: 16, 18 and 20 years. An 18 years size requires $3\frac{1}{2}$ yards of 40 inch material. The width at the foot with plaits extended is $1\frac{1}{4}$ yard. Price 12c.



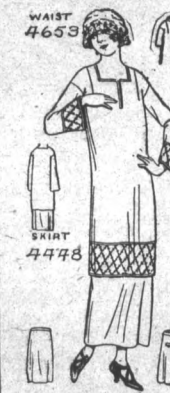
4263

4263. Ladies' Apron. Cut in One Size—Medium. It requires $1\frac{1}{4}$ yard of 32 inch material. Price 12c.



4669

4669. Ladies' Apron Frock. Cut in 4 Sizes: Small, 34-36; Medium, 38-40; Large, 42-44; Extra Large, 46-48 inches bust measure. Medium size requires $4\frac{1}{2}$ yards of 36 inch material. Price 12c.



4653-4448. Ladies' Costume.

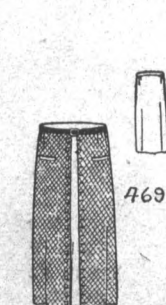
Blouse 4653 cut in 6 Sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 4448 cut in 7 Sizes: 25, 27, 29, 31, 33, 35 and 37 inches waist measure. To make the costume for a medium size requires $5\frac{1}{2}$ yards of 40 inch material. The width at the foot is $2\frac{1}{2}$ yards. TWO separate patterns 12c FOR EACH pattern.



4672

4672. Ladies' Dress. Cut in 7 Sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38 inch size requires $4\frac{1}{2}$ yards of 36 inch material. The width at the foot is $1\frac{1}{2}$ yard. Price 12c.

4673. Ladies' Dress. Cut in 7 Sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38 inch size requires $4\frac{1}{2}$ yards of 40 inch material. The width at the foot with plaits extended is 2 yards. Price 12c.



4697

4697. Ladies' Skirt. Cut in 7 Sizes: 25, 27, 29, 31, 33, 35 and 37 inches waist measure, with corresponding hip measure, 35, 37, 39, 41, 43, 45 and 47 inches. A medium size requires $2\frac{1}{2}$ yards of one material 40 inches wide. The width at the foot is $1\frac{1}{2}$ yards. Price 12c.

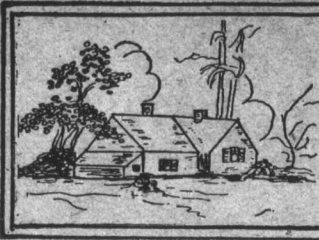


4690

4690. Ladies' Blouse. Cut in 6 Sizes: 34, 36, 38, 40, 42, and 44 inches bust measure. A 38 inch size requires 3 yards of 32 inch material. Price 12c.

GET CATALOG OF SPRING STYLES.

Send fifteen cents in silver or stamps for our up-to-date spring and summer 1924 book of fashions, showing color plates and containing 500 designs, of ladies', misses' and children's patterns, also explanations on dress-making and needlework. It will help you with your spring sewing.—Michigan Farmer Pattern Department, Detroit, Mich.



Woman's Interests



How One Farmwife Views Her Job

In These Chronicles She Points Out Her Way to Happiness on the Farm

LIFE is a big Adventure on the farm for the farmer's wife. This statement stands the test twelve months in the year. Let us take, for example, one day in March's thirty-one.

After a night's perfect rest, because mind and body were both healthily tired, the farmer's wife hears the rattle of the kitchen stove, jumps up to fry bacon and eggs, both our own product, cakes made from our own buckwheat and syrup for the cakes from our own trees. While wife has been preparing this typical meal, husband has been to the barn feeding the horses and noting the happenings there while he was at rest. Finds a mother licking her new calf, or a litter of fine little pigs born to his pedigreed sow, or just as good a pair of twin lambs getting their first breakfast from his pure-bred ewe. He hardly has time to open the kitchen door before he hears, "What did you find, John?" And while eating husband and wife discuss the future of the young animal or animals.

Afterward's Mary thinks, "I'll do my work before I go out," but the call to see the calf or pigs or lambs is too strong, and away she goes, the breakfast dishes left in the pan.

Sometimes we find frail little things, and husband comes to the house with something rolled up in a basket and says, "Ma, this lamb is too weak to stand up. What shall I do?" "Sit down while the cakes are hot and I'll tend to it," is a usual answer. A little hot tea is administered, a hot iron placed in the basket beside it and when John goes to the barn, Ma goes along to help give the first meal to what will be a fine fat lamb next fall. Then back to the house with it to keep it warm for the first few hours, and about nine A. M. it goes back to the barn to be put in a specially made crate, holding just a ewe and lamb, and covered over with a blanket. Sometimes a litter of soft-nosed little pigs requires about the same attention. Seldom does a calf require special care.

Just now we are separating our various breeds of geese and ducks, planning on nests for them and peeping into these new nests each morning, hoping to find our first goose or duck egg.

We have all kinds of magazines and papers, especially for we farm folk, and if it is not Gleaner, Grange, Farm Bureau or Farmer's club night, we read and study and talk over improved methods of doing our particular jobs on the farm.

And, if by reason of ill-health, babies, or aged people in the home, we cannot get out into God's great outdoors, and feel shut in—Remember that it is the woman, who uncomplainingly takes up and carries on her homely duties through the years, who stands first in God's vision.

A Farmer's Wife,

HIDE UGLY VIEWS WITH PLANTS.

IS there some disagreeable view you see everytime you look out from your kitchen window? There often is. Plant some castor beans where they will hide it temporarily and set out

some pines or spruces to make a permanent screen. It is wonderful what a change a little systematic planting will make in the pleasantness of the view from the kitchen window, and it is here that the housewife must spend very much of her time. Then there are other points from which views can be hidden or pretty pieces of landscape framed by evergreens or other suitable plants. The castor bean is a quick grower and has beautiful foliage, but there are other plants that will serve. Cannas are not tall enough for

invites one to answer those long due letters.

A room looks stiff if chairs are ranged at regular intervals around the walls, but if they are put in conversational groups of two or three the effect is pleasing. They should not be placed in front of other pieces of furniture such as book-cases but must be grouped so there will be easy access to everything in the room. Large pieces of furniture are more effective when placed parallel with the wall rather than diagonally.



This view of John Rickett's home near Howell makes us wish spring would hurry up.

all cases but will do many times, and they are very pretty in flower as well as foliage.—A. H.

MAKE FURNITURE APPEAR SOCIABLE.

GROUP the furniture in your rooms instead of merely putting it there and you will be surprised at the new atmosphere of comfort. Arrange the chairs so they talk to each other instead of making them appear as wallflowers.

A small table with a lamp on it placed at the end of the davenport makes a delightful place for father to read. A chair near a larger table or near a floor lamp is also inviting. A straight-backed chair near a writing

Pictures too belong in furniture groupings and are more effective when related to other objects than when isolated. Many women find that they have too many pictures when they group them with their furniture and as a result they "rotate" their pictures instead of having all of them upon the wall all of the time.

HINTS FOR THE COOK.

WHEN we find out something of value in food preparation it is a permanent asset, for we enjoy making good food as well as eating it, and having discovered a valuable idea or method, we can use it over and over with satisfaction for the rest of our lives.

Learning from Others

A HOME MAKER without an open mind is like a turtle, encasing herself in a hard shell at the mere approach of a suggestion. Her home may be solid along structural lines but its progress is slow and will not keep pace with the moving tide of new ideas.

You have met the woman who cannot accept a new idea from another person until it has become so incorporated in her mind that she is convinced that she thought of it herself. That friend is defrauding her family her friends and herself of the increased comfort and happiness that greater progress in the development of her home might afford.

Some of the best methods relating to our home job we may learn from our friends, if we will only select them wisely and adopt them for our own. Each housekeeper works out some part of her daily schedule just a little more carefully than does some other friend and close observation even without questions will surprise one to see just how many steps Mrs. S. does save in preparing a meal or how Mrs. B. finds time to do so much sewing. In the selection of new home or kitchen conveniences it is well to learn the opinions of other housekeepers before investing. What may appear to be a convenience might really become an expensive inconvenience. With a few well chosen conveniences the farm wife can do her work much more efficiently than if she has too many.

We need, then, with an open mind to choose the new methods, suggestions and conveniences according to our daily needs, that our work will be easier and that we may have a few spare minutes for recreation and fresh air.

When using sour milk, the degree of acidity is variable. So we will be rather safer when baking to follow this rule: use one slightly rounding teaspoonful of soda dissolved in a little warm water, to each cupful or eight ounces of sour milk; also one-half a teaspoonful of cream of tartar. This insures lightness and tenderness. Or, if we do not have the cream of tartar at hand, we can use a level teaspoonful of baking powder.

When in a hurry to serve baked potatoes, wash and boil them for about twelve minutes. Drain. Pop into a hot oven and in ten minutes they will be deliciously done,—light and mealy.

EATS FOR THE FAMILY.

Corn Fritters

1 cup corn, canned or fresh
1 tsp. baking-powder
1 egg
1-8 tsp. pepper
1/2 cup milk
1/2 tsp. salt
1/2 cup flour

Mix the corn, milk, yolk of the egg, salt, pepper and flour. Then carefully add the stiffly beaten egg-white and baking-powder, and drop by spoonfuls in a kettle of fat heated to one-hundred and seventy-five degrees C. Brown on one side, turn on the other remove with a skimmer, drain on brown paper and serve at once.

Potato Croquettes with Cheese Sauce

2 cups hot mashed potatoes
1/2 cup grated cheese
Salt and paprika
2 tb. cream
2 eggs
1 cup cream sauce
Bread crumbs
Hot fat.

Add to the potatoes the cream and the beaten yolks of the eggs, season with salt and white pepper or paprika, using only about an eighth teaspoon of the latter. Mix thoroughly, then shape into balls, roll in flour, egg and crumbs and fry in deep hot fat a delicious brown, and drain on absorbent paper. Add the grated cream cheese to the hot cream sauce. Season with salt and a pinch of cayenne.

Jellied Vegetable Salad

1 lb. gelatine
1/4 cup cold water
1/4 cup mild vinegar
7 cup boiling water
1 cup chopped cabbage
1/2 tsp. salt
3 lb. sugar
1/2 cup cold cooked green peas
1/2 cup cooked beets
Sliced and cut in fancy shapes.

Soak gelatine 10 minutes in cold water. Add boiling water, stir until gelatine is dissolved, and add salt, vinegar and sugar. When it begins to set, add cabbage, peas, beets, also a little horseradish and celery if desired. Turn in a mould wet in cold water. For a dressing whip one-half cup of heavy cream, to which add a little vinegar, horseradish and salt.

Peaches in Ambush

Make a dough as follows: Sift flour, measure out two cups, and four teaspoons of baking-powder, three-fourths teaspoon salt, and two tablespoons of sugar and sift again. Cut into this one-third cup of fat. Add three-fourths cup of milk, mix and roll to one-half inch in thickness. Place halves of preserved or canned peaches in a shallow pan. Cover with dough and bake in a hot oven for 12 or 15 minutes. Serve with cream or hand sauce.

Cottage Cheese Salad

Cottage cheese
Chopped nuts
Green peppers
Mayonnaise

Mix with cottage cheese a generous quantity of chooped nut. Place a tablespoonful on lettuce leaves. Surround with green peppers cut in strips. Add mayonnaise dressing.



HOUSEHOLD SERVICE

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

REMOVING GREASE SPOTS FROM WALLPAPER.

Will you please tell me how to remove grease spots from wallpaper?—Mrs. C. M. P.

French chalk is very good for this purpose. Take two pieces of very absorbent white blotting paper and between them pin two tablespoonsful of French chalk. Place this against the wall over the grease spots and hold a hot iron against them. Be very careful not to scorch the wall paper.

CLEANING THE SPRING HAT.

Could you or some of the readers tell me what to use to clean a white hat which has a satin crown and a braided felt brim, without making it yellow?—Miss B. S.

If your white hat is not badly soiled, you might clean it satisfactorily with powdered magnesia. Rub either of these powders well into the felt with a clean brush, then dust off all that is visible. If there are any real dirty spots on the hat, it would be well to clean them with gasoline before applying the magnesia.

MEAT FORCED OUT OF CAN.

After boiling the neck and other suitable pieces, I ground the meat for mince-meat, added the liquor in which it was cooked, and while warm filled jars within an inch of the top, filled with hot water, placed lid in place and put in boiler to process for 90 minutes. In less than 30 minutes, the tops of two jars had been forced off with a loss of considerable meat. In order not to lose more, I turned off the fire. What was wrong with the method, and how am I to save the meat? I do not wish to make it up with apples until next fall.—Mrs. D. R.

You did not explain fully the conditions under which you canned your meat. The trouble of the meat coming out of the cans might have been caused by your not having a rack in the bottom of the wash boiler to keep the cans from coming in direct contact with bottom.

In canning ground meat, it can be packed so closely into the jars that when you start to cook it, it might force the covers off. It would be well to leave at least one and a half inches of space in the top of each jar. I do not believe your meat will keep with only the half hour's cooking.

You might reheat to the boiling point on the stove, then repack in thoroughly sterilized jars. Place on

Tempting Spring Appetites

WITH the advent of spring, the appetite generally becomes a little finicky. Ordinary food doesn't seem to have as strong an appeal. Then it is that Mother begins to plan what she can serve to stimulate these lagging appetites and I'm sure our readers will be glad of a few suggestions along this line.

So, for the two letters containing the best recipes for stimulating the spring appetite, we will give each a three-piece kitchen knife set. The next three prizes will be two-piece kitchen knife sets.

Address your letters to Martha Cole, Michigan Farmer, Detroit, Michigan, before April 4.

the rubbers and screw the tops into position. Then take a half turn back and process again then in your wash boiler.

TO MAKE MAPLE SYRUP.

I should like to know how to make maple syrup. I have never seen any made, and we have lots of nice maple trees.—Mrs. J. J. H.

To make maple syrup, it is necessary to boil the sap down to one-half, or even more according to thickness. A slow, steady boiling is best. It is then put in sterilized cans while boiling hot, and canned the same as fruit. If you wish a heavier syrup, it will need to be boiled longer.

How to Can Chicken

SO many queries have been received for methods of canning chicken that I believe some suggestions here may be of general interest.

If there are a few extras in the farm flock which are doomed to grace the family table, it is not necessary for the farmer to feed their faces until the time comes to use them to feed his. They may be canned, and canned chicken will be found a real luxury after a long, hot day's work when it is ready for serving by merely reheating.

The chicken should be cleaned thor-



oughly and may be cooked before canning or may be canned raw. If it is to be roasted, prepare the same as for serving at the table. Cut into convenient pieces and pack into sterilized

jars to within one inch of the top. The bone may or may not be removed. Many are of the opinion that the bone adds flavor to the meat. Equally divide the liquor in which the chicken was roasted and fill the jars with boiling water. Place the rubbers and tops in position and then take half turn back. Process in hot water bath for an hour and a half or in a stream pressure cooker thirty minutes and finish sealing.

To can chicken raw, cut off the projecting bone at the upper end of the drum stick. Place one drum stick and one thigh in the back and the other drum stick and thigh in the breast cavity. Put the back in the jar, rounded surface to the outside. Hold in place and slip in the packed breast portion beside it. In the remaining space the wings and fillets. Sprinkle one teaspoonful of salt and add a piece of chicken fat, along with enough boiling water or chicken stock to fill the jar within one inch of the top. Partially seal as described above, and process in the hot water bath for three hours, or in a stream pressure cooker for one hour.

A bulletin containing information on canning and preserving all kinds of meats will be sent to you for sending 5c in stamps. Address request to Martha Cole, Michigan Farmer, Desk M.



JELL-O

America's most famous dessert

—for a treat

The plainest meal becomes festive when there is Jell-O for dessert. The family, particularly the children, will love it. Jell-O looks so pretty—sparkling and clear. And tastes so good—sweet and fruity. All you need to do to prepare Jell-O is "pour water." And it is economical; we don't know what good dessert could be cheaper. Ask for a Jell-O Recipe Book and give the family some treats.

THE GENESEE PURE FOOD COMPANY, Le Roy, New York

NEAPOLITAN JELL-O

Dissolve a package of Lemon Jell-O in a pint of boiling water. When it is cold put two-thirds of it, a spoonful at a time, on the Lemon Jell-O. For the rest, pour it on and let it harden. Dissolve a package of Strawberry Jell-O in a pint of boiling water. When it is cold put two-thirds of it, a spoonful at a time, on the Strawberry Jell-O. For the rest, pour it on and let it harden. All layers must be hard before others are added.

U.S.

Record \$2,059.20. I acre set same year. Champion Everbearing Strawberries. Bears 5 Mos. first year. Trial order 250 plants \$2.75 Postpaid, direct from the ORIGINATOR. Catalog Free. Edw. Lubke, R. A. New Buffalo, Mich.

STRAWBERRY PLANTS

\$3 per 100. Black Raspberry \$12; Red \$13. 20 Iris \$1. 8 apple trees \$1; 15 grapes \$1; 1,000 grapes \$25. We grow the best plants in Michigan. Free Catalogue. THE ALLEGAN NURSERY, Allegan, Mich.

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FOR LIMITED TIME ONLY



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Capacity 16 gallons.
Shipping weight 70 lbs.

Regularly sells for \$15.00

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Simple and easy to operate. Washes beautifully. Strongly made. Thousands in use.

SPECIAL BOSS FEATURES

Automatic attachment makes this machine work surprisingly easy. Simple and original construction of the operating mechanism saves time and work. Practically designed tub with large top and slip-off hinges. Sturdy, hardwood legs. Lift handle for raising the disc rubber before opening or closing the machine. The tub and disc rubber are durably made of Cypress, the wood eternal. You can buy this Boss Automatic Washer for a limited time, from the nearest Boss Dealer for only \$11.65. If his stock is exhausted we will ship direct to you from the factory upon receipt of your remittance.

Send for free booklet containing illustrations and descriptions of all Boss Washers. Many different styles and sizes of hand, engine, and electric machines. If you have electricity, you will be interested in the Boss Thermotub Electric. Built on the Thermos bottle principle. The biggest value in electric washers.

FREE

THE BOSS WASHING MACHINE CO.

2337 HARRIS AVE.
CINCINNATI, OHIO
ESTABLISHED 1889

NAME _____
STREET OR R. F. D. _____
TOWN & STATE _____
BOSS WASHING MACHINE CO.,
Cincinnati, Ohio.
Please send me the Model per
specimen enclosed
\$11.65 in payment.

CHICKS From World's Greatest Layers

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

Tom Barron White Leghorns Heavy Type Brown Leghorns
R. C. & S. C. Rhode Island Reds Park's Barred Rocks

Flocks are carefully culled and developed on free range. All chicks are hand picked and inspected, no cripples or weaklings. Every one strong and healthy. Satisfaction and 100% live delivery guaranteed. Postage paid. Write now for our low prices and free catalog. White Leghorn and Barred Rock pullets after May 1, at low prices.
KNOLL'S HATCHERY, R. 12, Box M, HOLLAND, MICH.



EARLY MATURING

BABY CHICKS



Quality Type Dependability Production

Our chicks are from flocks selected for their early maturing habits. This means high-producing individuals. These flocks are headed by cockerels from high-producing blood lines. Culled by experts. Each flock personally supervised. Pure-bred. From \$12.00 per pair, 230-302 egg strain. B. P. Rocks, R. I. Reds, W. P. Rocks, W. Wyandottes, W. Leghorns, Anconas. We can supply you chicks from the pens of B. P. Rocks and R. I. Reds which we now have in the 2nd International Egg Laying contest, or we can supply them from the matings which produced these pens, at special prices.

Write for description and prices. 100 per cent live delivery. Ref., Milan State Savings Bank. **MILAN HATCHERY, Box 4, Milan, Mich.**

Royal Egg-Bred Chicks

S. C. English Type White Leghorns and Brown Leghorns

You want strong, healthy chicks that grow fast into heavy producing Leghorns. You can have these chicks from us at a very reasonable price. Old customers took over 65 per cent of our chicks last year. H. A. Burke, of Green Bay, Wis., writes he had 70 per cent production during Dec. and Jan., 22 below zero, of chicks bought from us May 1st, 1923. 12 years of breeding for heavy egg production. Carefully selected breeders, headed by large, vigorous males and many years of successful hatching and shipping chicks, gives you chicks that will bring you success. 100 per cent live arrival guaranteed. Catalog price list free. Write today. **ROYAL HATCHERY AND FARMS, S. P. Wierma, R. 2, Zeeland, Mich.**



Better Chicks & More of Them

From well kept, well fed, free range heavy laying flocks. Barred Rocks, 50, \$7.75; 100, \$15.50; 500, \$72.50; Anconas, 50, \$6.75; 100, \$13.50; 500, \$62.50 White Leghorns, 50, \$5.75; 100, \$11.50; 500, \$52.50. Order direct from ad, saving time and money. Our nine years' experience hatching and selling Chicks, your best protection. 100 per cent live delivery guaranteed. Good reference.

DILIGENT HATCHERY, Holland, Mich.



Dundee Chicks

Are from pure-bred flocks culled by M. A. C. graduates. Only choicest breeders kept. Best utility and exhibition matings. Barred Rocks, 230 to 302 egg strain. R. I. Reds from Liddicoat's best, Anconas direct. Sheppard's White Leghorns direct M. A. C. Get 1924 catalog, price list. Reference, Dundee State Savings Bank.

THE DUNDEE HATCHERY

Box A, Dundee, Michigan

QUEEN QUALITY CHICKS

from Best Blood Line Free Range Flocks.

Developed and Culled by Experts—Barron Strain English White Leghorns, Brown Leghorns and Sheppard's Anconas. Sturdy, Healthy Chicks. Just a little more for your money. Safe delivery guaranteed. Write for Catalog.

QUEEN HATCHERY & POULTRY FARM :: ZEELAND, MICH.

750,000 CHICKS \$10.00 PER 100 AND UP

Select, culled flocks of heavy layers on free range and properly cared for to produce vigorous, sturdy chicks.

Varieties	25	50	100	500	1,000
White, Brown and Buff Leghorns, Anconas	\$3.75	\$7.50	\$15.00	\$60.00	\$120.00
White & Barred Rocks, Reds, Black Minorcas	4.25	8.50	17.00	72.00	144.00
White Wyandottes, Buff Orpingtons	4.50	9.00	18.00	72.00	144.00
Buff Minorcas, Silver Laced Wyandottes	6.00	12.00	24.00	96.00	192.00

Mixed chicks \$10.00 per 100 straight.
Postpaid. 100 per cent live arrival guaranteed. Order right from this ad.
Bank references. Circular free.

TRI-STATE HATCHERIES

Box 533

ARCHBOLD, OHIO



HUNDERMAN'S First-Class Chicks \$10 AND UP

We are heavy producers of pure-bred Chicks. Flocks on free range. Culled by an expert. 100 per cent Live Delivery Guaranteed. Order today from this ad. and get Chicks when you want them.

Varieties	25	50	100	500	1,000
English S. C. White Leghorns	\$3.50	\$7.00	\$14.00	\$56.00	\$112.00
Barred Rocks, S. C. Reds	4.25	8.50	17.00	72.00	144.00
Odds and Ends	3.00	6.00	12.00	48.00	96.00

Blue Hen Incubators. Reference: Zeeland State Bank. Order today. You take no chances. Orders booked for 10 percent down balance 10 days before chicks are to be shipped. Catalog free. **HUNDERMAN BROS., POULTRY FARM, Box 25, Zeeland, Michigan.**

Keystone Quality Chicks

From Early Maturing Stock. Bred in Michigan—Hatched in Michigan

Early maturing means that our stock has been selected and mated to produce fowls capable of making high yearly records. Great winter layers from pure-bred flocks under our own personal supervision. They are carefully culled and mated and from flocks headed by cockerels of high producing blood lines. Our best quality chicks have record breeding on both sides. B. P. Rocks, R. I. Reds, W. P. Rocks, W. Wyandottes, W. Leghorns, Anconas. Sent prepaid to your door. 100 per cent live delivery guaranteed. Write for illustrated catalog and price list. Low prices on quality chicks, \$12.00 per hundred and up. Bank References.

The Keystone Hatchery and Poultry Farms, Lansing, Michigan

1,000,000 GOOD LUCK CHICKS \$10 Per 100 AND UP

This season get our big, fluffy, healthy "GOOD LUCK" Chicks and REAP PROFITS.

Varieties	50	100	300	500
White, Brown and Buff Leghorns	\$7.50	\$15.00	\$45.00	\$75.00
Barred and White Rocks, R. C. & S. C. Reds, Anconas	8.50	17.00	51.00	85.00
White Wyandottes, Black Minorcas, Buff Orpingtons	9.50	19.00	57.00	95.00
Sil. & Part. Wyand., Lt. Brah., Buff Minorcas, Speckled Sussex	10.50	21.00	63.00	105.00

Mixed, all varieties, \$10 per 100, straight. Postpaid, full live delivery guaranteed. Bank references. Order right from this ad. Get them when you want them. You take no chance on "GOOD LUCK CHICKS." Catalogue free. Member International Baby Chick Association.

NEUHAUSER CHICK HATCHERIES

Box 72

NAPOLÉON, OHIO



Great Northern Hatchery Pure Bred Selected Flocks 100% Live Delivery

Strong, Sturdy, Northern-grown Chicks. Selected, pure-bred stock. Healthy Flocks on free range insure strength in every chick. Order from this ad.

Varieties	50	100	300	500	1,000
Leghorns (S. C. White and Brown)	\$7.00	\$14.00	\$42.00	\$70.00	\$140.00
Barred Rocks	8.00	16.00	48.00	80.00	160.00
White Rocks	9.50	19.00	57.00	95.00	190.00

Mixed Broiler Chicks, \$10 per 100, straight. Postpaid, full live delivery guaranteed. Best conditions in Newtown Incubators. Every Chick carefully inspected. 100 per cent live delivery guaranteed. Reference, State Commercial Savings Bank, this city. Write for prices on special matings.

Highest Quality Certified Baby Chicks

From Michigan's Old Reliable Hatchery, the best equipped and most modern Hatchery in the State. Pure-bred Tom Barron English and American White Leghorns, Anconas, Barred Plymouth Rocks and Rhode Island Reds. Strong, well-hatched Chicks from tested Hoganized free-range stock that make wonderful winter layers. Chicks sent by Insured Parcel Post, Prepaid to your door. 100 per cent live delivery guaranteed. Sixteen years of experience in producing and shipping Chicks, giving absolute satisfaction to thousands. Write for valuable illustrated free catalog and price list. Get lowest price on best quality chicks before placing your order.

W. VAN APPLEDORN,

R. 7,

Holland, Mich

HAWK ALARM.

UNTIL recently there has been a number of guineas kept at our farm.

Unlike the usual guinea fowl which are seen in various localities, ours were never wild, always laid eggs in nests along with the Barred Rock hens and seemed quite content, busily singing and calling here and there as they searched out the insect and worm.

We always set guinea eggs under a hen. After hatching, the pretty little birds are penned up for nearly a week to accustom them to their foster mother's voice. After that during the middle of the day they are turned loose until the second week is up, unless nice dry warm weather is prevailing. After the second week they may be let out just as soon as the dew is off the grass. The young guinea chicks are easily chilled and until well feathered out should be fed as carefully as baby turks. Plenty of clean sand and fine seeds such as Millet, grass seed and weed seeds (such as wheat screenings) should be fed. Don't over feed. Whole wheat is very dangerous; also oats. Except for the furnishing of fine seeds and sand, they are as easy to care for as chickens.

From now on they require nothing except drinking water as they will feed amongst the hens and chicks. Much of their food is rustled from nearby. They eat little except hoppers, crickets and grass seeds until snow flies.

Raised in this manner the old hen Mother can hardly get rid of her devoted youngsters. They often sit around chirping mournfully while their adopted mother does her daily egg.

Nice fat squabs are marketable and also fit in nicely at holiday time. They are as fine a table bird as could be wished for.

Since guineas have been a minus quantity on our farm, our newly hatched chicks have fallen victims to the bloody ravages of hawks.

Here-to-fore we had seldom seen hawks. Although our neighbors' chicks continually disappeared, we lost none in this way.

It now seems quite clear that the noisy chatter and fearlessness of the guinea fowl at anything new or strange, kept hawks from venturing near unless driven by hunger.

Several times hawks have been known to swoop down after a chicken dinner when the guineas would raise a deafening noise and charge about flapping their wings. A guinea will attack a hawk to protect her chicks.

Guineas are coming back to the farm yard to stay, not only to adorn the platter but as first class Hawk Alarms. —John O. Roberts.

TO CERTIFY HATCHERIES.

MICHIGAN hatcherymen and baby chick producers are to be placed on an equal basis with their competitors in neighboring states by the establishment of a certification service for baby chicks under the direction of the Michigan Agricultural College poultry department.

During Farmers' Week, a meeting of all Michigan hatcherymen interested in such a service was called at M. A. C., at which time plans and methods were discussed and the present organization formed.

Under this plan, the Michigan Baby Chick Association is to employ an experienced poultryman, selected by the poultry department of M. A. C., and approved by the Board of Directors of the Association. This expert is to be under the supervision of the M. A. C. poultry department and have headquarters at M. A. C.

The duties of the expert poultryman are to supervise the inspection of flocks which supply hatching eggs for the hatcheries who are members of the Association. The standard for this inspection is to be established by the M. A. C. poultry department, and the

White Diarrhea

Remarkable Experience of Mrs. C. M. Bradshaw in Preventing White Diarrhea

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

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

Cause of White Diarrhea

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

Never Lost a Single Chick

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

Never Lost One After First Dose

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

You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk. If you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

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

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

Name.....

Town.....

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

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.

Chicks Dying

Quick, drop an Avicol tablet in the drinking water

White diarrhea kills half of all the chicks hatched, yet this loss is easily prevented, easily stopped. For years, thousands of poultry raisers have stamped out the trouble almost entirely, by putting Avicol in the drinking water. Within 48 hours, the sick ones are lively as crickets. Mrs. Wm. May, Rego, Ind., says: "I was losing 15 chicks a day before I received the Avicol. I haven't lost one since."

Trouble gone in 2 days

Chas. N. Kittinger, Willows, Calif., writes: "Twelve of my chicks had diarrhea by the time I received my Avicol. I immediately gave them some, and by the second day, the trouble disappeared and now they are all as lively as crickets. If I had only known of Avicol sooner, I would have saved lots of chicks."

Stop dying at once

"Last spring I bought 25 baby chicks," writes Mrs. John Shaffer, Owen, Wis. "When about a week old, they began dying, would get droopy and in a few hours would die. When I had 15 left, I began giving Avicol and they stopped dying at once. I did not lose another one."

Costs nothing to try

Don't let white diarrhea get started in your flock. Prevent it! Stop it! Readers are urged to write to Burrell-Dugger Co., 602 Allen Ave., Indianapolis, Ind., sending 50c as a deposit for a package by mail prepaid (or \$1 for large size holding nearly 3 times as much). If you prefer, send no money but deposit the money with the postman on delivery. If the Avicol doesn't stop your chick losses immediately, if you're not more than satisfied, every cent of your money will be promptly refunded by the manufacturers.

Bur. ell-Dugger Company,

602 Allen Avenue Indianapolis, Indiana

Jim Rohan's Latest Bulletin

For smaller capacity get my 80-egg Champion Belle City Incubator for \$9.95; my 80-chick Hot Water Belle City Brooder for \$4.95; or both ordered together for only \$12.95-Express Prepaid East of Rockies.

\$13.95 Champion Belle City \$21.95
140 Egg Incubator 230 Egg
 Hot-Water, Copper Tank, Double Walls, Fibre Board, Self-Regulated. \$6.95 buys 140-chick; \$9.95-230-Chick Hot-Water Brooder. Save \$1.95, Order Both 140 Size Incubator and Brooder \$18.95 230 Size Incubator and Brooder \$29.95
Express Prepaid
 East of Rockies and Allowed West. Low Prices on Coal and Oil Canopy Brooders come with catalog. Guaranteed. Order now. Share in my \$1,000 in Prizes, or write for Free Book "Hatching Facts." It tells everything. Jim Rohan, Pres.
 Belle City Incubator Co. Box 14 Racine, Wis.

BOWERS Colony Brooder
Burns any fuel—costs less
 This brooder raises more and better chicks at lowest cost. Stove is sturdy, safe, air-tight, self-regulating—best in world to hold fire. Burns soft coal—cheapest brooder fuel—perfectly. Also hard coal, wood, etc. Automatic regulator maintains uniform heat night and day. Canopy spreads heat evenly over chicks; gives pure air, ample room. 500 and 1,000-chick sizes. Guaranteed. Lowest prices. Express prepaid E. of Rockies. **FREE—\$3.00 stove pipe outfit sent free with brooder if you order NOW.** F. M. BOWERS & CO. 1423 W. Wash. St. Indianapolis, Ind.

140 EGG Incubator
EXPRESS PREPAID \$13.85
 Shipped complete, set up, ready to run, express paid east of Rockies. Made of California Redwood, covered with galvanized iron, double walls, air space between, built to last for years; deep chick nursery, hot water heat, copper tanks.
140 EGG INCUBATOR WITH BROODER \$19.75
260 EGG INCUBATOR, ALONE, ONLY 23.50
260 EGG INCUBATOR, WITH BROODER 32.90
 30 days' trial—money back if not O. K.—FREE Catalog Ironclad Incubator Co., Box 91 Racine, Wis.

DON'T LOSE BABY CHICKS
GERMOZONE, for 25 years the reliable remedy, will rid them of Roup, Colds, Bowel Trouble, etc., and keep them healthy. "A wonder worker." Used by hundreds of thousands. Get it at drug or seed store, or order of us by card—7c and \$1.50 sizes, delivered. Postman will collect. No extra charge. Order today.
GEO. H. LEE CO. Omaha, Nebr

LEE'S LICE KILLER
The Old Reliable Has proven itself year after year the one sure way to rid poultry office, mites, bedbugs, body lice and such vermin. Paint or spray on roosts, etc. No dusting, dipping, greasing, handling. Get it at your drug or seed store, or write us for particulars and valuable free book. **GEO. H. LEE CO. Omaha, Nebr**

Detroit-Alliance INCUBATOR 140 - EGG CAPACITY
 Has all the features that insure big hatches—double walls, copper tank, complete nursery, perfect heat control through automatic trip burner, "Tycos" thermometer held so chicks can't break it when hatching. Detroit Brooder, too. Write for low combination price today!
 Detroit-Alliance Incubator Co. Dept. 31 Alliance, Ohio

expert poultryman is to have full authority to rate each flock according to the standard set.

Each hatchery will also be inspected as to its sanitary condition, incubation methods, and the manner of shipping chicks.

Another thing to be considered will be the use of undesirable or untruthful advertising by Michigan baby chick producers. The inspection official is to report all such objectionable advertising to the Association, and is required to examine and investigate all alleged to misrepresentations.

Certificates of certification of flocks and hatcheries will be issued by the Board of Directors of the Association upon the recommendation of the inspector. The service will be financed by assessments upon hatcherymen using the service according to the egg capacity of their hatcheries.

Another duty of the inspector will be the testing of every bird in flocks used for breeding purposes for the presence of Bacillary White Diarrhea. The M. A. C. poultry experts are now working toward the development of a satisfactory method of examination for this disastrous disease, and if a test is found, this branch of the work will assume a very important proportion, as enormous losses are caused annually from this affliction.

The certification service is to begin operation on July 1, according to Prof. E. C. Foreman of the M. A. C. poultry department, thus affecting only next season's chicks.

Practically all the larger hatcherymen of the state are members of the Michigan Baby Chick Association, of which Louis Van Appledom of Holland is president and C. J. De Koster of Zeeland is secretary. Hatcherymen who are not members may join upon complying with the regulations and meeting the requirements, including the annual fees of the association. Better than two million eggs are hatched from the middle of March to the middle of June by members of the association. Thus a considerable portion of the hatchery and baby chick business of the state will come under the provisions of this service.

By including the greater proportion of the large hatcherymen in the association, and placing the certification work under the supervision of the M. A. C. poultry department, and in addition, providing for action against members of the association found using fraudulent or untruthful advertising the chick business will make great strides forward. After the association recognized success, operation outside the certification organization will be practically impossible and the unfair men in the business will be eliminated.—Halstead.

CAN YOU BEAT IT?

WHILE over to my neighbor's Jas. Little, a few evenings since, he told me what his chickens have done this winter in the way of egg production.

He has 100 White Leghorn pullets, of the Hollywood strain, which were hatched March 23, 1923. They have never been culled, but they are a mighty fine bunch of hens.

They have all run together as a flock, occupying one room.

Mr. Little got his first egg on August 10. Their winter's production by months was as follows:

	Eggs.
August	41
September	248
October	273
November	1,534
December	2,080
January	1,800
February	1,985

Cash received for eggs sold... \$313.14
 The fact that this is Mr. Little's first experience in the chicken business, makes it all the more interesting.

This may not be as big a "chicken story" as some can tell, but it ain't bad. Let us hear from others.—E. E. Bright.

140 Egg Incubator \$13.25
30 Days Trial
 Freight Paid east of the Rockies. Hot water, copper tanks—double walls—dead air space—double glass doors—a real bargain at \$13.25. Shipped complete, set up ready to use.
140 Egg Incubator and Brooder - \$17.75
180 Egg Incubator Alone - 15.75
180 Egg Incubator and Brooder - 22.00
250 Egg Incubator Alone - 22.75
250 Egg Incubator and Brooder - 31.00
 Made of California Redwood. Positively the best value on the market. Order direct from this ad. 30 days trial—money back if not pleased. If not ready to order now, don't buy until you get our 1924 catalog which shows larger sizes up to 1000 eggs.
WISCONSIN INCUBATOR CO. Dept. 120 Racine, Wis.

"It Fills the Bill"
"Self-Serve" Chick Feeder
 Holds 12 quarts. Can't clog. Chicks can't roost on cover nor touch feed with feet. Price \$1.50 plus postage. Send for booklet.
Ira P. Hayes
 Dept. B-11, Eckford, Michigan

Baby Chick Feeders and Fountains
 Simple—Sanitary—Automatic Used and Endorsed by the largest Hatcheries and Poultry Farms in the United States.
 We want to send you our Catalog of POULTRY SUPPLIES.
 —IT'S FREE—
THE M. CURDY MFG. CO.
 DEPT. B, ADA, OHIO.
 POULTRY

Certified White Leghorn CHICKS
HOLLYWOOD
 MATED \$15 per 100
 Sired by Hollywood males whose dams had egg records of 250 to 290. Stock certified by Michigan Baby Chick Ass'n.
Rural Strain, \$13
Brown Leghorns, \$14-\$15
 Ancon's, Barred Rocks, Large Illustrated catalog free
RURAL POULTRY FARM
 Box 109, Zeeland, Mich.

—Inspected and Approved
Baby Chicks
 From Best Egg Laying Strains in the World
 Tancred, pedigree-sired and Tom Barron, S. C. White Leghorns, S. C. & R. C. R. I. Reds, Parks' Barred Plymouth Rocks.
 Our flocks are all on free range, closely culled, inspected and approved by Michigan Baby Chick Association. Every bird is healthy, has size, type and color.
Hatched in World's Best Incubator
 Our chicks are strong, sturdy and healthy. They live and grow because they are hatched in the best incubator made. 100% live delivery to your door. Illustrated catalog sent FREE.
LAKEVIEW POULTRY FARM, R. 8, Box 5, Holland, Mich.

Certified Pure Bred Baby Chicks
 Trapped direct from world champion layers; the famous Tom Barron and Hollywood strains of White Leghorns. Order these chicks from pedigree stock now at bargain prices! Hatched in the largest and finest hatchery in Michigan at the rate of 150,000 eggs to a setting. Also get our prices on Barred Rocks and other popular breeds. Satisfaction guaranteed or money back. Write for FREE illustrated catalog and special DISCOUNT PRICES—today.
SUPERIOR POULTRY FARMS
 Box 200 Zeeland, Mich.

Wolverine Baby Chicks
 Always Good Easy to raise.
English Type S.C. White Leghorns
 High producing, profitable stock. 100% safe arrival guaranteed. Write for our 13th annual catalogue.
Wolverine Hatchery
 H. P. Wiersma, Prop. R. 2, Zeeland, Mich

PURE BRED BABY CHICKS
 We have been carefully developing our flocks for eight years. Every chick pure-bred and from stock carefully culled, for type and production. Our chicks give satisfaction. Order today and get chicks when you want them.

Wh. Leghorns	50	100	500
Bd. Rocks, R. I. Reds	\$7.00	\$13.00	\$62.00
Wh. Wyandottes, Wh. Rocks	8.00	15.00	72.00
	8.50	16.00	77.00

 Postpaid. 100 per cent live delivery. You take no chances. Ref. Farmers' & Mechanics' Bank, this city. No catalog. Order from this ad.
WASHTENAW HATCHERY, R. 5, Ann Arbor, Mich

QUALITY CHICKS AT REASONABLE PRICES
 English White Leghorns, Paris' Strain Barred Rocks, S. C. Black Minorcas, Reds and Anconas. My pen (16) at the 1923 Mich. Contest finished third among all heavy breeds, four hens making records over 200 eggs each, and one with a record of 254 eggs was seventh highest individual for the entire contest, 390 birds competing.
PINE BAY POULTRY FARM, HOLLAND, MICH.

Baby Chicks
 Postpaid to your door. Guarantee 100 per cent live arrival. Heavy laying, pure-bred flocks. White, Brown & Buff Leghorns, 50, \$7; 100, \$13. Barred Rocks, Reds, Anconas, Minorcas, 50, \$8; 100, \$15. White and Columbian Wyandottes, White Rocks, Black Spanish, Black Minorcas (chole), 50, \$9; 100, \$17. Catalog Free. WHY NOT BUY GOOD CHICKS? **THE C. M. LOWER HATCHERY, Box 30, Bryan, Ohio.**

Baby Chicks S. C. W. Leghorns
Pedigree Certified
 Michigan's Largest S. C. W. Leghorn Farm, over 2000 Birds. Hatch our own eggs only. Supply limited. Order early. One trial will convince you. Free Circular.
SIMON HARKEMA and SON, Holland, Michigan R. 1.

SUPREME CHICKS
LAYERS! That's what you want. Standard Chicks are from just that kind of flocks. Our strain of Supreme Laying White Leghorns is the result of our many years experience, breeding and selection. They are large sized, long deep wedge shaped bodies, keen alert eyes, large lopped combs. The kind you will be proud of and eventually buy. Shipped postpaid. 100% Live delivery guaranteed. Illustrated catalog sent Free.
STANDARD HATCHERY, Box A, Zeeland, Mich.

BEST CHICKS at Low Prices
 Send for free catalog describing best bred chicks in the country. Tom Barron and Tancrad White Leghorns, Michigan's Champion Winter Laying, Barred Plymouth Rocks and S. C. R. I. Reds. No better chicks anywhere at any price. Satisfaction and 100 per cent live delivery guaranteed.
Brunner-Fredrickson Poultry Farm, Box 20 Holland, Mich.

FREE FEED "Just-Rite" with CHICKS
 Most Profitable Varieties. Trapnest-Exhibition, Pedigree, and Utility Matings, direct from prize-winners at New York, Chicago, Nat'l Egg Laying Contests. Nabob Quality. None better at any price Satisfaction and 97 per cent live arrival guaranteed. Postpaid. Low Prices. Big Catalog FREE. Stamps appreciated.
NABOB HATCHERIES, Ave. 20, Gambier, Ohio Ohio Chicks are Better

Barred Rock Baby Chicks
 We hatch only Barred Rock Chicks from choice selected stock shipped by prepaid parcel post to your door, satisfaction and alive delivery guaranteed. Circular on request.
THE KAZOO HATCHERY CO. R. R. 3 Kalamazoo, Mich.

CHICKS: Strong, Healthy.
 S. C. Tom Barron Eng. White Leghorns, Brown Leghorns, 12c; Shepherd's Anconas, 13c; Assorted Chicks, 14c. Class A flocks therefore we sell no Class B, but Class A chicks only. 100 per cent safe delivery. Postpaid. No money down with order. Catalog free. **BOS HATCHERY, Zeeland, Mich., R. No. 2 M.**

QUALITY CHICKS
 Strong, vigorous, pure-bred, from heavy layBarron strain S. C. White Leghorns that have been carefully culled and mated to pure-bred males. The kind that develop quick and lay early. Following prices—25, \$3.50; 50, \$7.00; 100, \$13.00; 500, \$62.50. Postage and live delivery guaranteed. Bank reference, Peoples State Bank. **LAKE BLUFF HATCHERY, R. F. D., No. 1, Holland, Mich.**

Whittaker's Reds Chicks
 And eggs for hatching. Rose and Single Combs. Michigan's greatest color and egg strain. Bred from fourteen generations of winter layers. Write for free catalog. **Interlakes Farm, Box 39, Lawrence, Mich.**

Highest Quality Chicks Feb.-March prices.
 Heavy broiler chicks 12c; Barred Rocks or Reds 15c; Anconas 14c; Black Minorcas 16c; White or Brown Leghorns 15c; White Rocks 15½c; White Wyandottes, Buff Orpingtons 17½c; Extra selected chicks, built directly from contest winners, 4c per chick more. Add 30c if less than 100 wanted. Hatching eggs. Catalog. Good reference. **Beckmann Hatchery, TMF, 26 Lyon St., Grand Rapids, Mich.**

DAY OLD CHICKS
 S. C. White Leghorn Day-old Chicks (English Strain) from 2-year-old hens from our own stock. Strong and vigorous. Best breeding. Also Barred Rock Chicks from 2-year-old hens from best laying strain. Catalog free. Write today. **Hillcrest Poultry Farms & Hatchery, Box A, R. 2, Holland, Mich.**

CHICKS: WHITE LEGHORN Heavy laying, pure bred, English strain. Flocks culled and tested for laying ability. Strong healthy chicks. 100 per cent live, delivery guaranteed. Prices right. Catalog Free. **CATALPA GROVE HATCHERY, Box 1 R 2 Holland Mich.**

BABY CHIX
PEDIGREE Sired Eng. W. Leg. (Barron Strain). direct from our farm, delivered 100 per cent alive at your door at \$13.00 per 100; \$60 per 500; \$110 per 1,000. Chix sold from our own flock only. Send for circular. **Model Poultry Farm Zeeland R. 4, Mich.**

Leghorn B-A-B-Y---C-H-I-X Heavies
 Black, Brown, Buff, White, Brahmas and Orpingtons, Anconas and Minorcas, Reds, Rocks, Wyandottes, Allegan Hatchery on Highway No. 89. Send for 1924 price list. **Crescent Egg Company, Allegan, Mich.**

Wingarden Strain WHITE LEGHORN BABY CHICKS

EGG BRED for 18 YEARS

Here's what you get when you buy
**Guaranteed Wingarden
BABY CHICKS**

(1) Pedigreed stock, sired by males whose dams had records of 200 to 280 eggs per year, and grand-dams 208 to 304 eggs. (2) 100 per cent live delivery. (3) Chicks guaranteed to be healthy. (4) Absolutely pure-bred. (5) Absolutely no culls. (6) Stock that withstands winter cold as well as summer heat. (7) Free entry in our annual flock performance contest, whereby you may obtain 200 of our best Barron English White Leghorns free.

We know the quality of our stock because we maintain 42 hatchery farms of our own, instead of buying eggs wherever available. Sired by Hollywood and Funk Farms, Males.

White and Brown Leghorns. Anconas.

Send for our catalog and read full particulars of the Wingarden Strain.

Wingarden ZEELAND, MICH.
HATCHERY & FARMS Box M

PURE BRED CHICKS

Tom Barron Imported and Hollywood strains S. C. White Leghorns, Sheppard's Famous S. C. Mottled Anconas and Park's Bred to Lay Barred Rocks. All Free range flocks carefully culled and certified by experts and bred many years for high egg production. Pedigreed males from 250 to 280 egg strains and from hens that produced leading pen in Michigan's international Laying contest, head our flocks. Eggs from these famous strains hatched with scrupulous care in our Modern Mammoth Incubators produce strong, healthy, peppy chicks that are easy to raise and become marvelous layers. Chicks are shipped postpaid, 100% live delivery guaranteed. Write for our big free illustrated catalog.

Silver Ward Hatchery, Box 29 Zeeland, Mich

BRED TO LAY CHICKS

Certified
100,000 Highest Quality Certified Baby Chicks. Improved Sheppard Strain S. C. Anconas—hard to beat. Winter and Summer, English Strain S. C. White Leghorns. All our Leghorns mated with Cockerels from E. E. Shaw Champion winning pen at M. A. C. 1923 laying contest. Personally culled and rated by experts and certified by Michigan Baby Chick Association. Guaranteed 100 per cent live delivery. Catalog Free. Take no chance with just as good, but get your best foundation pure-bred stock from The Reliable Poultry Farm & Hatchery, Paul De Groot, Mgr., R. 1, Dept. F, Zeeland, Mich.

OVIE'S BABY CHICKS

PROFIT MAKERS
Breeders of high egg production, combined with sturdy freerange stock of exhibition quality assures you of fine success with Ovie's Healthy Chicks.
BLOOD TESTED
Tested for White Diarrhea and elimination of infected birds assures Profit Makers. 12 leading money-making breeds. Shipped prepaid and live delivery guaranteed. Write for Big Free Catalog. 30,000 chicks weekly.
OVIE'S POULTRY FARM & HATCHERY
218 Boots Street Marion, Indiana

Wishbone Hatched CHICKS

The finest day-olds money can buy. Strong, big from free-ranged stock. All popular varieties. Shipped by parcel post. Write for moderate price list.

Wolff's Hatchery, R. 11, Holland, Mich.



Chicks with Pep

Try our lively and vigorous chicks from bred-to-lay and exhibition hens. They will make you money for they have the quality and egg-laying habit bred into them. A trial will convince you.

All leading varieties. Safe delivery. Prepaid. Prices right. Bank reference. Big illustrated catalog free.

Holgate Chick Hatchery, Box M, Holgate, Ohio

Certified Chicks

at popular prices. We won 1st and 4th prize this year on English strain White Leghorn Hen at the National Poultry Show, Chicago. Also first at Zeeland Poultry Show. Other breeds have had same careful supervision in developing and breeding. Pure-bred stock carefully culled. 100 per cent live arrival guaranteed. Our chicks are money makers and will improve your flock. Write for catalog and prices. A trial will convince you. All flocks certified.
AMERICAN CHICK FARM, B. 115-A, Zeeland, Mich.

Baby Chicks \$12.00 per 100 and up. We are listing 12 varieties of pure-bred fowls, chickens, ducks and guineas. Send for prices and circulars. Clinton Hatchery & Poultry Farms, Wilmington, Ohio.

OUR BOYS AND GIRLS

What I Want to Be

By Three Merry Circleers

My ambition in life is to be a missionary. We read so much about the poor little foreign people, that I don't see how any person could help but want to help them in some way.

Say, cousins, just stop and think. Most of us think we have it awful hard, but what would you do if you were some of those children in foreign lands. Some of them are without shelter, and most of them without food and clothing. There ought to be a few more people like our dear missionaries.

The reason I want to be a missionary when I am old enough, is because

think this big talk, but I hope to carry it out.—Zona L. Amos, M. C., Owosso, Michigan.

When I grow up I should like to be a school teacher. I think I should want to be a teacher because I like little children and when I get to be a lady I think I shall like the big ones.

Whenever we have to play in the house, I want to play school and take the part of the teacher.

I would play all night (for that is when we usually play) if my playmates would. There is good money in teaching also.

After I am married, that is if I ever am, I want to live on a farm, and have about 60 or 70 cows, a large barn with a milking machine and other things like that. (That is, if we can afford it and my husband will live on a farm.) I like cows and also like milk, butter, and cream real well. The farm is the healthiest place to live and the best place to raise children for they are not cooped up in a little door yard. They can roam over the whole farm. And one can get all the good fresh vegetables he wants and that is what I like.—Elsie Reetz, Rose City, Mich.

I would like to be a dairyman and raise cows when I grow older. My father said if I liked cows I ought to be a dairyman.

I learned to milk when I was 8 years old and last summer when I was 10 years old I milked ten cows.

I have a cow for a pet and when it is milking time in the summer she walks up to me and wants me to milk her.

I don't like the cows in the stable so very well because they get dirty and the dirt gets in the milk.

I pasture our cows before school every morning and sometimes before milking after school. I pasture our cows on a clover field and on our road. Sometimes our cows try to reach for corn, but if we feed them corn and pasture them they don't do it. Our cows like sweet corn better than other corn.—James Brower, Holland, Mich., R. 2.



Lucile Stevens and her pet.

I would be making some one happy, and also would be telling someone about our Heavenly Father. I would tell them about what our boys and girls are doing over here. I certainly would not forget to tell them about you and your Merry Circle, Uncle Frank.

I intend to go over as a nurse, I will get my education here, and put my nursing in practice where it is needed in country homes. This will bring money but it will all go to the help of these foreign children. I expect that my knowing how to nurse will be of use in my missionary work, but I will nurse these foreign people free of charge.

Well, cousins and Uncle, you may

OUR LETTER BOX

Dear Uncle Frank:

We got our Michigan Farmer and when I saw that I didn't win anything in the drawing contest, I just sat down and cried. I had done as good as I could and I have tried in many of the contests, but have never won anything. I have a flashlight and a pen both, and have candy, but somehow it seems that they would be better if I had won them as prizes.

I am answering the contest again, Uncle Frank, please don't discourage me entirely.

Uncle Frank, I want to ask you a few questions:

First, would our contest papers win just as many prizes if we did not send letters with them?

Second, if a M. C. wrote a letter in a scramble and received a letter from another M. C., can his or her sister or brother, who is not a M. C., write to this girl or boy also?

Do you mix the boys' letters with the girls and the girls' letters with the girls, or not?—Your niece, "Miss America."

I am sorry you have been disappointed. But the contest prizes must necessarily go to those who send in the best papers, not those who try the most often. It makes no difference if letters are sent with contest papers,

as long as they are on separate sheets, and the names and addresses on both. We could not stop very well a non-M. C. from writing to an M. C.

Dear Uncle Frank:

Just finished reading "what the W. B. didn't get." I did not like Lydia Vilvoek's attitude toward farm life. I think if we are not willing to do the hard work on the farm we have no right to enjoy the pleasures it offers.

Say, Uncle Frank, I lost my M. C. button too. You know such things do happen. Do you still sell them, and how much are they?

We have organized a sewing club here. We call ourselves the Sebewaing Busy Bees. It keeps us hustling to live up to that name. I would like to hear from other girls belonging to sewing clubs. This is our first attempt at club work and we would like to know how others conduct their meetings.

Eva Hallgren wants a little more pep in M. C. letters. Why not discuss the question of whether women should have seats in Congress. That topic caused a hot argument in our Civics class last week. All the boys naturally opposed the question. But then, we all know how unreasonable boys can be. I wonder whether M. C. boys

have the same opinion.—From your niece, Lorna Lange, Sebewaing, Mich.

I like your attitude about work. Yes, we still sell M. C. buttons to those who have lost theirs. I would like to have some of those "unreasonable" boys answer you.

Dear Uncle Frank:

I was the one who suggested about taking up some money for the poor. I see you wanted some suggestions as for what to do with the money. Well here is mine:

Each M. C. could send what he could and at the end of the month you could send what you got to some orphanage somewhere.

What do you think about it? I think it would be very nice. We would have quite a sum of money like Henrietta Mededorf said. We have quite a big club of boys and girls and I'm sure they would send some money in. That would be a better way to spend the money we don't need. Let's start a Merry Circle Aid Fund.—As ever your, Nephew Martin Lerg, M. C. Lake City, Mich.

Thanks for your suggestions. I think it would be better if we had some special purpose to which we put the fund. Let's hear from others.

Dear Uncle:

In the correspondence scramble, I got a letter from Ira Leetz, and I answered his and he answered mine.

Dorothy Wright got a letter from Harold Cole, she said. Sh! I shouldn't say that out loud, should I?

Do you know I got the nicest Mother, Father, Aunt Nellie and all relations counting you too. I am glad I can claim relationship to you by the M. C. That's all though, so I will close.—Your niece, Marie Bradford, Marcellus, Mich.

Thanks for including me among all your good relations. It's all right to say out loud what you said.

Dear Uncle Frank and Cousins:

I am not a M. C. Member. But would surely like to be. To correspond with all the cousin's, That is just the thing for me.

To sit and read the merry letters, Written by the girls and boys, Telling us of all their sorrow, And also tell about their joys.

I carefully look at all the pictures, Read with laughter all the stories.



Bartelle and Ruth Wilson and "Scotty"

And read with pleasure all poems written With the skill of girls and boys.

I also read about waste basket, Dearest friend of Uncle Frank, Devouring the Cousins' letters, Seems to be his favorite prank.

Today I have been a reading, Of the resolutions made; By the boys and girls, who no doubt, Mean to keep them to the end.

Can I come again, dear cousins? Uncle Frank may answer too. I could not be any happier, If I could join and be with you.

I hope that you Mr. Waste Basket, Are not very hungry when, This little message I am sending, Gets to its long journey's end. —Miss Kathleen Silvis, R. 2, Scottsville, Mich.

This poem-letter was written in January so I bet Kathleen is surprised to see it. I wonder how many have kept their New Year's resolutions. Yes, come again, Kathleen.

About the Mystery Contest

By Uncle Frank

THE Mystery Contest was one of the easiest contests we have had. Still, more failed on it than any contest we have had for a long time. Less than one-third of the answers fulfilled all of the requirements.

A great many got the ad fixed up correctly but failed on other things. Some got the ad with "the cart before the horse," and still others unconsciously made jokes out of the ad.

One boy had it: "Wanted—A young musical with a piano education by a grand lady with legs carved and mahogany finish." I never met a young musical with a piano education and I am sorry for the lady if she is in the condition described.

Another boy said: "Wanted—A young girl who got her musical education from a grand lady, and also a piano with carved legs and mahogany finish." I am sure that if I had gotten my musical education from a grand lady, it would have been much better than it is.

An M. C. girl made it out as follows: "Wanted—A young lady with musical education by a piano with carved legs and mahogany finish." I never knew that piano, even one with carved legs, etc., ever had any need for a young lady.

Girls who are not Merry Circlers can also write funny ones. Here's proof: "Wanted—By a grand lady with a musical education, a young piano with carved legs and mahogany finish." Undoubtedly the lady wanted what is called a baby grand piano.

The boys seem stronger on the funny stuff, for here is another: "Wanted—A young lady pianist with a musical education to play a grand piano with carved legs and a mahogany finish." Somebody probably wanted their piano exercised and wanted a young lady to do it for them.

Another boy takes the following privileges with the ad: "Wanted—A nearly new piano which is perfectly tuned and that is an up-to-date, model, also which has beautiful carved legs and a mahogany finish." It seems that he forgot all about the young lady which is very unusual. The usual thing is to forget about the piano when a young lady is concerned.

Now I guess I'll have to take the mystery out of this contest. My real purpose was not to have the ad straightened out—that was only a side issue. What I wanted to find out was how boys and girls could follow directions. Sad to relate, this contest shows that many can not. In some way or other, two-thirds of the contest writers failed.

I guess everybody followed the direction with reference to writing with pencil but a great many failed to put their names and addresses, their ages their grade in school or the date in the right places. Some failed to put M. C. or N. M. C. after their names. Others wrote more on their papers than the directions specified. If you will read the contest announcement again, you will find that nothing but that which was requested should be put on the one sheet, and that if a letter or any thing else, was written, it should be on another sheet.

Here is about the way a correct paper would be arranged:

Jimmie Jones, N. M. C.
Halfway, Mich., R. No. 6

Wanted—A grand piano with carved legs and mahogany finish, by a young lady with a musical education.

Age 12
Grade 6
March 15, 1924

A great many had the ad. arranged: "Wanted—By a young lady with a musical education, a grand piano with carved legs and mahogany finish." This makes a sensible ad. but not a strong one. When one reads a "want

ad," he is more anxious to know what is wanted than by whom it is wanted, so the part regarding the piano should be put first.

In the past I have asked often that letters separate from contest papers and that the name and address be put on both. But still I have had to wear out lead pencils writing names and address on either one or the other, and

Sentence Contest

Here is something else. It is a little different than any other contest we have had. You see, the other day I was looking at the words "Uncle Frank" and found that the letters contained in those two words would make three words which will make a sentence. You can find fun lurking in this contest if you will try.

Here is what you should do: Make three words from the letters in UNCLE FRANK and form a sentence from these three words—a sentence, not a question.

Write the sentence on a single sheet of paper.

Put your name and address in the upper left hand corner of the paper.

If you are a Merry Circler, put M. C. after your name.

Put your age under your name and address.

If you want to write a letter or anything else, put it on a separate paper with your name also on that sheet.

Send your contest paper to Uncle Frank, Michigan Farmer, Detroit, Mich., by April 4th, for the contest closes on that date.

Ten prizes will be given—two fountain pens, three flashlights, and five boxes of candy. All the correct papers will be mixed together in a basket and the lucky ten will be picked out by a disinterested person.

All who write correct papers and are not M. C.'s will get M. C. buttons and cards.

sometimes both. Occasionally somebody will write their name and address on the envelope and leave the rest for me to do.

Lead pencils cost money, you know. So, even if my time isn't worth anything, I am going to save lead pencils by not writing any more names and addresses. I am going to leave that for you to do. If you neglect it, your papers will go into the cull pile.

I think it is good practice to learn how to follow directions. For that reason I am asking you to do these things. Really, in the end, it will help you more than it will me.

THE LUCKY TEN.

Here are the winners in the mystery contest:

Fountain Pens.
Ruth Murphy, Coldwater, Mich., R. 7.
Harold Kelley, Hillsdale, Mich., R. 4.

Flash Lights.
Helen K. Miller, Fairgrove, Mich., R. 2.
Corine Herzog, Six Lakes, Mich.
Sarah Riddle, Angola, Ind., R. 6.

Candy.
Edna Stites, Ionia, Mich., R. 1.
Pauline Hammond, Ypsilanti, Mich., R. 2.

Henry Hanna, Acme, Mich.
Ottelia Strauer, Harbor Beach, Mich., R. 1.
John E. Haas, Ypsilanti, Mich., R. 6.

Our good intentions and promises are swallowed up by our interests, as the smoke from the chimney is dispelled by the wind.

Fashion spoils more clothing than does our wearing.

KARSTEN'S QUALITY

BABY CHICKS

FROM STOCK—THAT IS BRED WITH THE LAYING HABIT

Hollywood and Barron English Single Comb White Leghorns STRAIN MATINGS

250-300 EGG-BRED LINE

Careful breeding, typetesting and trapnesting has produced our world-famous Karsten's Quality Laying Hen—A Utility Bird With Standard Requirements

Our Leghorns are long, deep-bodied, wedge-shaped birds, with wide backs and low spread tails, big lopped combs and alert eyes. Birds that lay those large white eggs that bring the high prices on the New York Market.

KARSTEN'S FARM Box Y ZEELAND, MICHIGAN

B. HUBER'S RELIABLE CHICKS

OUR 15th. YEAR

1000000 for 1924

POSTPAID, 100 PER CENT LIVE DELIVERY. Give us your order for OUR RELIABLE CHICKS and we will prove to you, IF BETTER CHICKS COULD BE HATCHED FOR THE MONEY WE WOULD BE HATCHING THEM.

FLOCKS PURE BRED CULLED BY EXPERTS
FINE ILLUSTRATED CATALOG FREE. Tells how we produce RELIABLE CHICKS that have pleased thousands of customers. We hatch 13 Varieties COMBINATION OFFERS. VALUABLE BOOK GIVEN FREE with each order. HUBER'S RELIABLE HATCHERY, East High St., Fostoria, Ohio.

PURE BRED BIG VALUE CHICKS

Best paying standard varieties from healthy free range utility flocks, carefully inspected, culled, and Hogan tested. Quick maturing. High Egg Production. Each

	25 Chicks	50 Chicks	100 Chicks	500 Chicks	1000 Chicks
S. C. White L. B. L. Buff L.	\$3.25	\$6.25	\$12.50	\$60.00	\$120.00
S. C. B. Minorcas, S. C. M. Ancon- as, Barred Rocks, S. C. R. I. Reds	3.75	7.50	15.00	72.50	140.00
White Rocks, R. C. R. I. Reds	4.00	8.00	16.00	77.50	150.00
White Wyandottes	4.25	8.50	17.00	82.50	160.00
S. C. White, S. C. Buff Orpingtons	2.50	5.00	10.00	50.00	100.00
Mixed, All Breeds					

Wolf Hatching & Breeding Co., Dept. 5, Gibsonburg, Ohio

CHIX

FREE CHICK OFFER

Our Tom Barron Strain White Leghorns pay big dividends. We breed and hatch only one kind—the best. Our pure-bred chicks are strong, husky and easy to raise. Get our circular and FREE CHICK OFFER before buying eggs, chicks or breeding stock. It will surely pay you. PROGRESSIVE POULTRY FARM, P. Ver Hage, Mgr., Zeeland, Mich.

CHICKS

We can save you money on Ancona and White Leghorn Chicks. Send at once for catalog and prices. We insure your chicks for one week.

M. D. WYNGARDEN
R. 4, Box 80 Zeeland, Mich.

CABALL'S BARRED ROCKS

Always among leaders in Laying Contests. Leading Hen, "Irish Lady," over all breeds Nat'l Laying Contest. Leading Pen, Michigan Laying Contest. 3 winter months, 2nd pen in contest. Official Laying Contest records 202 to 293. My Rocks have won more cups, specials and prizes in Egg Laying Contests and Egg Production classes than any other breeder in U. S. A. So why take chances. Bargain Prices.

CHICKS, EGGS AND STOCK. Catalogue Free.
G. CABALL, R. R. 3, HUDSONVILLE, MICH.

BABION'S QUALITY CHICKS

Varieties. Postpaid Prices on	25	50	100	500	1000
English Wh., Br., Bl. & Buff Leghorns.....	\$3.75	\$7.00	\$13.00	\$62.00	\$120.00
Barred Rocks, S. C. & R. C. Reds, Anconas....	4.25	8.00	15.00	72.00	140.00
Wh. & Buff Rocks, Wh. Wyandottes, Minorcas....	4.50	8.75	17.00	82.00	160.00
Sil. Wyandottes, Buff & Wh. Orpingtons.....	5.00	9.50	19.00	92.00	180.00
Black Langshans, Light Brahmas.....	5.00	9.50	19.00	92.00	180.00

Prices quoted are for Chicks hatched from OUR GOOD UTILITY FLOCKS. Chicks from OUR EXTRA SELECTED FLOCKS will be \$3.00 per 100 higher and Chicks from our Fancy Stocks or BLUE RIBBON PENS will be \$5.00 per 100 higher. Postpaid. 100 per cent live delivery guaranteed. Bank references. You cannot go wrong. Order from this Ad. Thousands satisfied. Thirty-four varieties. Also eight week pullets \$1.25 up. Ten years' experience. Our Slogan: "The best chicks are the cheapest not the cheapest chicks are best." BABION'S FRUIT AND POULTRY FARMS, Flint, Michigan.

Krueper's Barred Rock Baby Chicks

We hatch only from specially mated pens culled and mated by experts. Prices according to breeding, \$15.00, \$18.00, \$20.00 per hundred. A trial order will convince you. 100 percent safe delivery guaranteed. Postpaid, bank reference, catalogue free.

KRUEPER POULTRY FARM & HATCHERY, R. 3, Milan, Mich.

Are located in this famous poultry section. Ours is among the leaders for good stock at reasonable prices. Free catalog on Leghorns, Anconas, R. C. R. I. Reds, Address Box 72.

ZEELAND POULTRY FARMS
ZEELAND, MICH.

Buy Your Baby Chicks

from us this year and guarantee your profits. Purchasers of our chicks raise 95 percent instead of only 50 percent, because our flocks are culled for disease as well as highest egg production and because we hatch only in tested mammoth machines. Rocks, W. Leghorns, Reds, Anconas, Buff Orpington 9c up. Our large free catalogue tells all about our superior, egg pedigree stock.

MICHIGAN HATCHERY & POULTRY FARM.
Box 1 Holland, Mich.

Baby Chicks

Chicks with vigor and pep from heavy laying strains.	100	500	1000
Select B. P. Rocks.....	\$15.00	\$72.00	\$140.00
Extra Select B. P. Rocks.....	17.00	80.00	160.00
R. C. R. Island Reds.....	15.00	72.50	145.00
Extra Select Reds.....	17.00	80.00	160.00
S. C. Mottled Anconas.....	13.00	62.50	125.00
S. C. White Leghorns.....	12.00	57.50	115.00

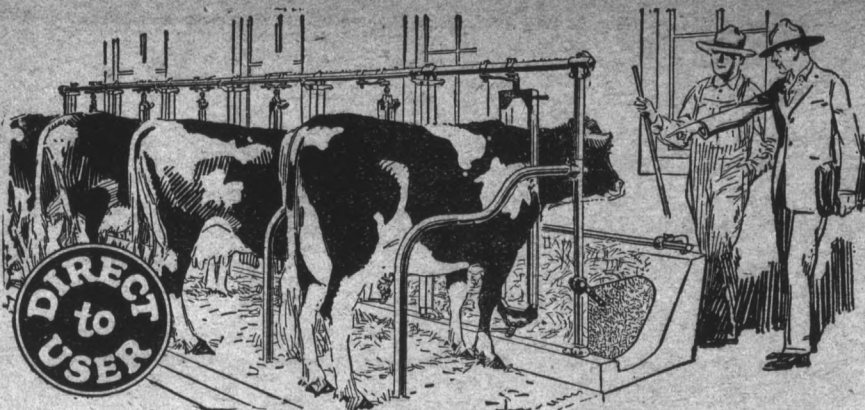
The A. D. Richardson Hatchery, Dundee, Mich.

SELECT QUALITY CHICKS

From America's best winter-laying purebreds, W and Brown Leghorns, W. and Barred Rocks, Reds, Wyandottes. Special Wyandotte mating. Guaranteed, 14 years experience. Catalog.

HAIGHT HATCHERY, Cedar Springs, Mich.

Additional Poultry Ads. on Page 487



Only \$6⁵⁶ per Month

Pays for All the Jamesway Equipment Shown In This Barn

Just realize what this means. You have been putting off using needed equipment—stalls, pens, drinking cups, carriers, ventilation. Go ahead with your plans—now—today. Install your needed equipment on the

Jamesway Co-operative Plan "Pay From Earnings"

This plan puts the best goods in America into your barn at once—and the equipment saves and pays its cost as you use it. It does more. It brings to you experienced, individual service on your farm problems; a service which thousands of JAMESWAY customers, bankers and colleges of agriculture say is worth many times the cost of the equipment itself.

This new marketing plan, which JAMESWAY alone can offer, leaves no excuse for any farmer, regardless

of financial condition, to be without the latest labor-saving, profit-producing equipment for dairy barn, hog barn, and poultry house.

Write Today

and tell us your plans. Tell us what you need. Get full details of our "pay from earnings" plan. Make the earnings you should from your cows, poultry and hogs this year. Make it easier. Only a part of the earnings will pay all of the cost. Write today for booklet No. 75 and get started at once.

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AMERICAN CREAM SEPARATOR

On trial. Easy running, easily cleaned. Skims warm or cold milk. Different from picture which shows large size easy running New L.S. Model. Get our easy

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Removes the afterbirth of cows and heifers without injury and without force. An afterbirth retained will ruin your cow for the season. Assist nature by giving Dr. David Roberts Cow Cleaner **BEFORE THE COW FRESHENS**. For sale by dealers or postpaid \$1. Ask for FREE copy of The Cattle Specialist and how to get The Practical Home Veterinarian without cost. Veterinary Advice Free.

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You can now get any size of the New Butterfly Cream Separator direct from our factory for only \$2 down, and on a plan whereby it will earn its own cost and more before you pay.

We quote Surprisingly Low Prices and allow payments as low as

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No interest to pay—no extras. Every machine guaranteed a lifetime against defects in material and workmanship.

30 Days' FREE Trial on your farm at our risk. Nearly 200,000 already in use on American farms. Easiest of all separators to clean and turn.

Write for Free Catalog Folder today.

ALBAUGH-DOVER CO. 2165 Marshall Bldg. Chicago, Ill.

Please Mention The Michigan Farmer When Writing to Advertisers

Color Your Butter

"Dandelion Butter Color" Gives That Golden June Shade which Brings Top Prices

Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade. "Dandelion Butter Color" is purely vegetable, harmless, and meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless. Large bottles cost only 35 cents at drug or grocery stores.

Wells & Richardson Co., Burlington, Vt.

INDIANA SILO

and Metal Corn Crib

THOUSANDS of farmers have paid for their farms on money made by storing their silage in Indiana Silos. More than 80,000 are now in use. They pay for themselves in a short time—and build up your soil.

Save your dry grain and mature corn in an Indiana Metal Crib. Strongly built, thoroughly ventilated—it is a permanent improvement on the farm. Write today for our special low price early buyers' proposition. Just a few Agencies left.

The Indiana Silo & Tractor Co.
Anderson, Ind.
Dept. 47



INFLUENCE OF TIME OF CALVING ON MILK PRODUCTION.

ENGLISH investigators have studied the influence of the time of calving upon the quantity of milk produced by cows. Their researches were based upon the records of 1,410 cows.

The results showed that cows calving January, June and July were normal. Those calving February were 10 percent too low; those in March, two percent low; April, three percent low; May and December, two percent low. On the other hand those calving in August were eight percent high; September four percent high; October one percent high, and November, six percent high.

It would appear from these results that the dairymen who have their cows freshened in the fall receive a higher milk production than where the calves come in the springtime.

Cows freshening in February appeared to be most handicapped in milk production; while those calving in August and November were highest above normal.

INHERITANCE OF MILK YIELD.

IN a study made of the records of the Holstein-Friesian Advanced Registry, the conclusions were reached that the sire and the dam were equally and jointly responsible for milk yields and butter fat percentages. It was further found that the grandparents were influential in determining the milk production to about one-half the extent that the parents were. This study emphasized the importance of the high milking qualities in the first and second generations back, and the lack of influence to any marked degree of ancestors too far back in the pedigree.

HOLSTEIN BREEDERS ACQUIRE TRADEMARKS.

FIVE Michigan Holstein breeders have recently acquired prefix names for use in naming their registered cattle. These names have been reserved by the breeders association for the exclusive use of the individual breeders. They are "Security," M. O. Postman & Sons, Coopersville; "Jostdale," John E. Post, Durand; "Macfarmco," M. J. McPherson, Howell; "Oshtemo," H. B. McMurray, Kalamazoo, and "Cool Lake," Earl Fairbanks, Jr., Lansing.

The use of prefix names is of decided advantage to the breeder. It gives him the use of all names in new combinations, even those in previous use by other persons, and makes selection of names less difficult. The prefix may become well known and thus become a trade mark for the owner and whenever observed distinguishes the breed.

To date nearly 5,000 prefix names are reserved for Holstein breeders by the national association. There is no charge made for reserving these names.—J. C. M.

MILK CONSUMPTION INCREASES.

THE consumption of milk per capita in the United States is steadily increasing. An extensive study made by the Bureau of Agricultural Economics shows that the average consumption of fluid milk and cream in both farm and city homes was 53 gallons in 1923, 50 gallons in 1922, and 49 gallons in 1921.

The average daily consumption per person was 1.15 pints. The average daily consumption of milk per person on farms having producing cows was 1.78 pints; on farms where no producing cows were kept, it was .775 of a pint, and in city homes the daily per capita consumption of milk was .87 pints.

This was the most complete survey of milk consumption ever made. Farm figures were tabulated from 30,000 individual farm schedules. The figures relating to city milk consumption were obtained from Boards of Health in 300 cities with 25,000,000 inhabitants.

GROWS HIGH CLASS JERSEYS.

A. H. DONALDSON of Tyrone Township, Livingston County, has been a member in cow testing association work for the past two years. Mr. Donaldson's life work has been to breed and keep high class Jersey cows. He is a firm believer in desiring to know that each animal pays for its feed and returns a profit over the year's time.

His good purebred Jersey herd is known beyond the confines of his township and county and even beyond the boundaries of Michigan. Colorado has a champion butterfat producer that originated in Mr. Donaldson's herd. The living Grand Champion cow of Colorado, a purebred Jersey six years old, Cristine of Elm Place, 395208, has just completed 365 day record of twice a day milking, making 14,722 pounds milk and 778.6 pounds butter fat.

Mr. Donaldson is not leaving all of the good ones go out of his hands. He has a full sister to this cow in his herd that is making a very good record in the cow testing association work. To know the true value of cattle and to be a true breeder of good livestock is a strong asset for any farmer. Mr. Donaldson with his Jersey herd is making a strong record in practicing the best methods to improve his herd in every manner. He uses the best of purebred sires and grows abundant alfalfa hay to feed his well bred cows.—A. C. B.

Locks 50 Cows Instead Of One

West Bend BARN EQUIPMENT

West Bend Automatic Stanchions equipped with our wonderful locking-releasing lever save you time and labor—and insure safety in locking up or releasing the cows, yet you pay no more for West Bend equipment than for ordinary stanchions that must be opened and closed singly by hand. The West Bend lever controls from the station. The entire row of cows can be locked up or released instantly by one throw of the lever. Cow stops are operated at same time, and when set, guide cow into the stanchion. Every user says it's the greatest idea ever brought out in modern barn equipment. You certainly want it in your barn. Write today for catalog showing complete line of West Bend Barn Equipment. Write TODAY, West Bend Equipment Corp., West Bend, Wis. Syracuse, N. Y. Write nearest office, Dept. E.



Dinner Time in the Young Folks Dining Room of the Maple Hill Dairy Farm brings much excitement.

WAIT! LISTEN

Galloway

BARGAINS SAVE

Farmers Millions of Dollars By Direct From Factory to Farm one small profit plan.

MILK PAIL Filled With ALUMINUM Given To Customers

If you want the best separator made, the closest skimming, easiest operating, easiest cleaning, most modern type at lowest prices ever made. Investigate the New Galloway Masterpiece separator, the machine that is considered perfect by the World's Best Engineers.

90-Day Trial

Test it, inspect it, compare point for point with any separator you ever saw. Compare it with any in your neighborhood. If it doesn't convince you from actual operation that it's all I claim, ship it back.

\$4.75 Balance DOWN On Easy Terms

Engines, Spreaders and other farm equipment on my Direct From Factory to Farm Plan means a big saving to you—big demand—factories working capacity means low in manufacture cost—and lowest prices to you—in fact I am offering greater bargains right now than anything offered in years—which means your buying dollar with me is back to normal.

Write for special Bargain Bulletin, check up my prices, read about my quality, figure out what you save buying direct from factory and you'll quickly decide to join the ranks of 300,000 Galloway customers. Get in on million dollar saving I promise farmers of America this year. Address

Wm. Galloway Co.
Dept. 187 Waterloo, Iowa

Engines, Spreaders, Separators—Galloway's—8 winners

MUSKRATS

Write for price and shipping tags. None better.

Lake Land Fur Ex. Co., Salem, Mich.

BAG BALM

MADE BY THE **KOW-KARE** PEOPLE

For the 'Little' injuries that cut Milk Profits

For any cut, scratch, bruise, inflammation or external hurt, Bag Balm is a quick, sure healer. It penetrates, softens, restores tissues. Use it to keep udder and teats soft, silky and healthy. Bag Balm is a sure relief for Caked Bag and very valuable for treating Bunches and Cow Pox. An every-day aid where there are cows.

Large 10-oz. package 60c, at feed dealers, general stores and druggists. Send for free booklet, "Dairy Wrinkles."

Dairy Association Co., Inc.
Lyndonville, Vt.

BAG BALM

FREE 2-OUNCE SAMPLE

Dairy Association Co., Lyndonville, Vt.

Please send me sample package of Bag Balm.

My name _____

Address _____

Dealer's name _____

IT PAYS TO TEST.

DO you belong to a Cow Testing Association? a banker in Ingham County asked a farmer recently who wanted a loan. Bankers are interested in methods employed by their customers. They want to know that money borrowed is used in a productive enterprise, that the interest will be paid promptly, and that the principal will be paid without too much delay. And, they want to know that the cows milked by their customers are paying a profit on the operation.

The cow testing association is a means by which a man can check up on his cows and find out the ones that are paying out and which ones are not. Almost as important is the point of feeding. It is almost impossible to feed properly without milk weights and feed weights on each individual cow. These weights are obtained by the tester. Another point is the increased interest a man will take with his cows if he is in an association with a group of his neighbors.

There are three cow testing associations operating in Ingham County at present. One is located around Lansing and extends up into Clinton County. It has just finished a successful year and has started another. The second association is around Leslie. It will finish the year in April. The third association is around Mason and it will finish the year in May.—J. G. Wells, Jr.

MICHIGAN JERSEY BREEDERS EM-BARK ON NEW ENTERPRISE.

THE fellows who said it could not be done must tilt their lids and bow low to the rapidly growing number of progressive Jersey Cattle breeders in Michigan. These men were storing up so much vitality that they finally came to the point where an awful explosion was going to happen unless some vent could be found for the rapidly increasing pressure.

So, believing that this surplus should be used in constructive work—in the promotion and organization of county or district clubs, in bull association and calf club activities, in the working out of uniform methods and plans, in the development and operation of a clearing house to better distribute Michigan's good Jerseys, and in other forward looking enterprises—believing all these things, the board of directors of the association recently engaged Prof. H. E. Dennison of the Extension Department of the M. A. C. as their Field Man for this state, to work out ways and means of relieving the situation.

The first step of importance is a sale which will be held at the Michigan Agricultural College on May 14 where cattle from the herds of the state will be offered at auction. After that the lines of effort mentioned above and many others will come in for the attention of Prof. Dennison.

The same council which has always prevailed in the activities of the Jersey breeders of the state and the splendid spirit of cooperation ever present in their gatherings and dealings, leads to the opinion that our Jersey folks are going to broaden the sphere of their work and usefulness to the great agricultural fraternity of the state.

The newly elected directors are: Alfred Hendrickson Hart; Alvin Baldwin, Capac; Hon. J. W. Fordney, Saginaw; R. E. Jennings, Paw Paw; H. F. Probert, Jackson; F. A. Thompson, Corunna; J. B. Maher, Chicago, Ill.; E. W. Vasvary, Detroit; J. S. Barrow, Jr., Fennville; D. T. Rosenberg, Kalkaska; F. W. Eardley, Grand Rapids; A. H. Goss, Detroit; T. F. Marston, Bay City; John Walsh, Quincy.

These directors have elected Alfred Hendrickson, President; H. F. Probert, Vice-President; and Morris H. Roberts Jr. of Ypsilanti as secretary-treasurer.

The best specific for grief is action.

Ask for it by name —
"Blackfoot Brand"
It's a Thoroughbred Seed



On each of the three sizes of sealed sacks in which Blackfoot Brand Genuine Grimm is packed—30, 60 and 150 lbs.—you will find this Blackfoot Label.

Just as much care is taken to keep the strain pure as you take with your thoroughbred stock. Blackfoot Brand is pedigreed seed, registered and certified.

The label and seal are a further warrant that you will obtain Genuine Grimm. They certify that the variety of the seed has been passed on by the State Pure Seed Commissioner of Idaho. Every possible safeguard is taken to make sure that you get the true Blackfoot Brand Genuine Grimm.



To avoid purchase of inferior alfalfa seed, insist on the Blackfoot Brand in sealed and labeled sacks. Use the same care in your selection of alfalfa seed as you would in selecting a thoroughbred bull in preference to a grade bull.

If your dealer is out of Blackfoot Brand, write direct to

IDAHO GRIMM ALFALFA SEED GROWERS ASS'N, BLACKFOOT, IDAHO

GRIMM ALFALFA SEED

SWEET CLOVER, ALFALFA, SOYBEANS, ETC. Priced right. Inoculating Bacteria for bushel any legume, 60c postpaid. E. E. BASIL, LATTY, OHIO.

Galvanized Corrugated Steel ROOFING!

\$3.75 Per Square

Freight Paid

—as Follows

Freight charges prepaid in full on all orders of roofing from this advertisement at prices shown to Illinois, Indiana, Ohio, Wisconsin, Michigan, Minnesota, Missouri, Iowa, New York and Pennsylvania. If your state is not included, proportionate differences in freight charges will be allowed.

Order from this List!

- Galvanized Roofing**
- These GALVANIZED sheets are suitable for roofing or siding, free from holes, squarely trimmed, recorrugated and given a coat of Red Paint free of charge.
- No. SD-111—Heavy weight overhauled GALVANIZED 24-inch Corrugated sheets—per square of 100 \$375
- Painted Roofing and Siding**
- No. SD-112—Standard weight overhauled painted 24-inch Corrugated sheets—suitable for siding— \$235 per square of 100 square feet.
- No. SD-113—Medium weight overhauled painted 24-inch Corrugated sheet—for roofing of better siding \$285 per square of 100 square feet.
- New Government Corrugated Sheets**
- No. SD-114—BRAND NEW PAINTED 24-inch CORRUGATED SHEETS in 22 Gauge—purchased from the U. S. Government. A wonderful value \$425 per square of 100 square feet.
- Red and Gray Slate Coated Roll Roofing**
- No. SD-115—NEW Slate Coated Roofing in rolls of 108 square feet complete with nails and cement. \$200 Weight 85 pounds. Red or gray. Per roll.
- No. SD-116—New Heavy Smooth Surfaced Roofing—Sound and durable—easily taken care of—Adapted to every roofing need. Complete with nails and cement—per roll \$165

HARRIS BROTHERS CO.
35th and Iron Streets, CHICAGO

MAIL THIS COUPON NOW!

HARRIS BROTHERS CO., Chicago, Ill. Dept. SD-12

Fill out coupon below and we will send you our estimate of cost for your building without obligation on your part.

NAME.....

ADDRESS.....

Size of Building or Roof Dimensions.....

Kind of Roofing Preferred.....

HEAVES

Use 2 large cans. Cost \$2.50. Money back if not satisfactory. One can at \$1.25 often sufficient. NEWTON'S Compound for Worm Expelling, Conditioning, Heaves, Indigestion, Distemper, Coughs. 65c and \$1.25 cans. At dealers or post-paid. The NEWTON REMEDY CO., Toledo, Ohio

I Will Condition a Horse or Cow in Twelve Days

Put flesh on its bones. Give it life and vigor. Can add fifty per cent to looks and value. Satisfaction guaranteed or no pay. Send postal for free offer.

P. M. FAUST, BRYN MAWR, PA.

KITSELMAN FENCE

GET IT FROM THE FACTORY DIRECT

Frank S. Edwards, R 1, Camden, Mich., says: "Saved 15c to 20c a Rod."

Cut your own fence costs to the bone by buying direct from us at Lowest Factory Prices. We Pay the Freight.

Write today for Free 100-page Catalog of Farm, Poultry and Lawn Fence, Barbed Wire, Gates, Posts, and latest low prices. KITSELMAN BROS. Dept. 278 MUNCIE IND. America's Oldest Fence Manufacturers.

SELDOM SEE

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

ABSORBINE

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

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

W. F. YOUNG, INC., 468 Lyman St., Springfield, Mass.

CURES LAMENESS

Quit the draining expense and cure your suffering lame and idle horse. Don't hold back—we take all risk to permanently cure mule, work horse or valuable thoroughbred of Ringbone, Thoropin—SPAVIN or Shoulder, Knee, Ankle, Hoof or Tendon Disease. Our FREE Save-The-Horse BOOK tells the story. This remarkable serviceable book, which every horse owner will value, sample of signed Guarantee with other substantial references and evidence are all sent FREE. They prove what Save-The-Horse has done for over 380,000 satisfied users. Save-The-Horse is no cure-all but for diseases causing lameness you can depend upon it. Horse works, earning while being cured.

TROY CHEMICAL CO., 320 State St., Binghamton, N. Y.
At Druggists and Dealers with Signed Contract or sent prepaid.

BREEDERS' DIRECTORY

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

Registered Aberdeen-Angus 6 heifers, 5 bulls
from eight to fourteen months. Best
of breeding. The growthy kind that make good.
Reasonable. Inquire of F. J. Wilber, Clio, Mich.

ABERDEEN Angus Bull Calf, serviceable age. The
right kind to sire baby beef calves.
H. O. Ruggles, Milford, Mich.

Brookwood Farm

Registered Guernseys of both sexes for
sale at reasonable prices. Young stock
from A. R. dams. Herd is Federal
Accredited.

JOHN ENDICOTT, Owner
BIRMINGHAM, MICH.

FOREST HILLS GUERNSEYS

For Sale: Three-year-old bull, grandson of Murne
Cowan, former world champion in butter-fat produc-
tion. Bull calf, 12 mo. old, 1st prize West Michigan
Fair, dam's record 446 lbs. fat. Bull calf 8 mo. old,
dam's record 450 lbs. fat. Class 9. **M. HOMPE, R.**
5, Forest Hills Farm, Grand Rapids, Mich.

Reg. Guernseys Two Nice Bulls, nearly ready for
service. Special terms if desired.
J. M. Williams, North Adams, Mich.

Registered Guernsey Bull, twenty months old, a fine
individual, May Rose breeding. T. B. tested.
Price very attractive. **Chas. C. Fizzell, Elsie, Mich.**

AUCTION SALE

2 miles West, 1½ miles North of
Bay City, Michigan
APRIL 2, 1924
at 10 o'clock sharp

5 Registered Holstein Cows
2 Registered Holstein Bulls, 1 year old.
13 High Grade Holstein Cows.

Weismiller Bros., Props.

Colonel Cotton John C. Harris
Auctioneer Clerk

A PONTIAC TO HEAD
YOUR HERD

We have choice young bulls tracing to Hen-
gerveld Dekol and Pontiac, Korndyke
and backed by generations of Pontiac breeding.
They are sired by.

Sir Clothilde Concordia, whose dam and
granddam average 1072.5 lbs. butter in a
year, or

College Butter Boy, whose dam made 1,112
lbs. butter in one year.

Pontiac Blood Will Tell.

Send for our list of bull calves and service
bulls.

BUREAU OF ANIMAL INDUSTRY
Department C. Lansing, Michigan

Registered Holstein Bulls

Up to eleven months of age. Good individuals and
good breeding, at low prices. Also a few young cows
or heifers soon to freshen. A healthy herd. **J. M.**
SHORMAN, Fowlerville, Mich.

FOR SALE Reg. Holstein, two yr. old.
Heifer coming fresh in June,
beautifully marked. Bred to a 38-lb. Bull. Also Pair
Reg. Heifer Calves. **Whitney Bros., Onondaga, Mich.**

FOR SALE Carload Young Reg. Holstein
Cows. Tuberculin Tested. Bar-
gin Prices. **J. E. Gamble, Hart, Mich.**

"JUST JERSEYS"

Quality plus Economy

Oxford Sultan of Oaklands

Herd sire

The only herd west of
Pittsburgh headed by a
sire winning first prize
over the Island of Jersey
for "Bull and Progeny."

THE OAKLANDS

Arnold H. Goss, Prop.
Ann Arbor, Mich.

R. F. D. 5

Brookwater Jerseys

Bull calves for sale. Majesty breeding. Herd tuber-
culosis free. Come or write, Brookwater Farm, Ann
Arbor, Mich.



THE HIDE OF A STEER.

HOW many of our farmers who
are raising cattle, buying har-
ness, shoes and all leather goods,
know the value of a hide? Most of us
know they are not worth much to sell.

Some of us know that Michigan
hides are discriminated against in the
market and wonder why. There is a
reason, and, when we come to know
something about a hide and what
makes or mars them, it is not so hard
to understand why we are penalized.

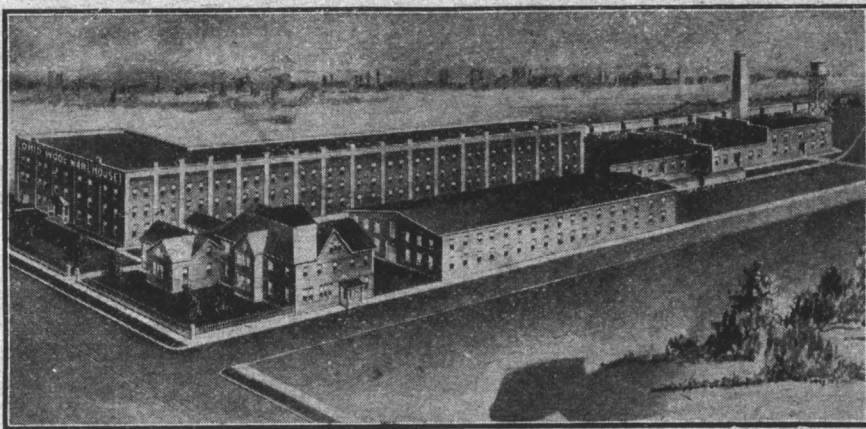
The fact that a steer's hide is val-
uable according to the various cuts,
the same as the carcass is, is not very
common knowledge. We are inclined
to think "leather is leather," and
equally valuable pound for pound, but
the facts are that there is as great a
difference between the leather that
grows along the back of a steer and

ance going throughout the state, with
a number of the good ones staying in
the County. This was Alexander and
Bodimers second annual sale and they
are planning a like one on the same
date next year.

WILL HANDLE MICHIGAN WOOL.

AS noted last week, the Michigan
wool pool will be marketed during
the season of 1924 through the Ohio
Wool Growers' Association. The same
association will also handle the wool
pooled in Indiana and West Virginia.

Over at Columbus the Buckeye farm-
ers have a fine plant for assembling,
grading and warehousing the wool, as
may be seen from the accompanying
picture. Through the association these
farmers have been able to realize a
high net price for their wool. This
price was due largely to the econom-



Warehouse Being Used by the Ohio Wool Growers' Association in the Suc-
cessful Handling of their Wool Pool.

that which comes from the lower
parts of the body, as there is between
the porterhouse steaks and the chuck.
There is only enough tug leather in a
steer's hide to make two, two-ply tugs.
These are the strips that are cut out
of the back of the hide from end to
end. The leather for the lines of a
harness are taken next along the sides,
then the back pads, and britches and
belly bands come from the lower and
spongier parts of the hide.

It is this difference in the quality of
leather that makes the large part of
the difference between a good harness
and a poor one, between a good pair
of shoes and a cheap pair, between
goods that will wear and hold their
shape and goods that stretch, wear
out quickly and break. Naturally, too,
the best workmanship goes into the
best goods and adds to the value of
them, although to the untrained eye
there may be little difference in the
appearance.

We mentioned above the discrimina-
tion against Michigan hides. Now, we
can grow just as good cattle with just
as good hides on them in Michigan as
anywhere else in the world. There are
no flies in Michigan as a cattle grow-
ing state. But there are flies on the
cattle. We call them warbles, and
their larvae grow under the skins, in
the form of grubs along the backs
where the most valuable leather
comes from. These grubs leave little
holes in the hide and utterly ruin the
hide for cutting the most valuable
strips of leather. Just like the borers
can spoil entirely an otherwise prom-
ising locust growth so these grubs
spell ruin or damnation to an
otherwise prime hide of leather.—
Pope.

HOGS AVERAGE \$36.

THE Chester White Sale of F. W.
Alexander of Vassar and Fred L.
Bodimer of Reese held at Alexander
farm on March 6th. was very satis-
factory.

A total of forty one head was sold
at an average of \$36.00 a head. Levi.

P. Moore bought several head, going
to Pennsylvania and Indiana, the bal-
ical manner in which the product was
handled. So favorable was the show-
ing that wool producers of other states
are now convinced that advantages
should come to them from using Ohio's
facilities. Supplies from this wider
area should, by reason of the greater
volume, give the sales department still
further advantages in selling.

CONSIDER CHANGES IN VEGE-
TABLE OIL SCHEDULES.

THE reopening of the vegetable oil
tariff schedules before the Feder-
al Tariff Commission has brought to
Washington large delegations repre-
senting the various interests that
would be affected by a change in the
rates on these oils. The dairy and
creamery organizations are making an
effective fight against tariff reductions.
They hold that cheap vegetable oils
from the Orient are not only ruinous
to the oil industry in this country, but
come into unfair competition with
dairy products.

It has been shown that 75,680,652
pounds of coconut oil entered into the
277,737,450 pounds of oleomargarine
produced in the United States last
year, compared with 20,377,421 pounds
of cottonseed oil, 31,192,779 pounds of
neutral lard, and 64,947,810 pounds of
milk entering into the composition of
the same commodity.

A relentless harvesting of the ac-
cumulated wealth of ages, in forests,
soil fertility and minerals has been the
rule. Robbing the land of its abun-
dant natural resources, leaving it cut
over, run down and striped of its vir-
gin beauty and native richness, then
moving on to new territory to do it
ever again. That has been the story
of the development (if it can be called
such) of this great country of ours.

Some of the things offered farmers
by oily tongued salesmen are misnom-
ers. They are swindles, not invest-
ments.

FOR SALE Jersey bulls ready for ser-
vice. All cows Register of
Merit. Accredited herd. Would take a bankable
note. **SMITH AND PARKER, R. 4, Howell, Mich.**

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

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

HEREFORDS

Bulls, Heifers and Cows with Calves by side. Most
popular strains. **Allen Bros., 516 S. Westnedge St.,
Kalamazoo, Mich.**

HEREFORDS

Registered Breeding cattle. T. B. Tested
at practical prices for production of
Hereford Baby Beeves profitably, all ages.
T. F. B. SOTHAM & SONS
(Herefords since 1889)
St. Clair, Mich.

Herefords For Sale. Cows with calves,
old heifers also young bulls at beef prices. **Ralph
Calhoun, Bronson, Mich.**

FOUR heifers of the best Hereford breedings, at
reasonable prices, also one young bull. No
better anywhere. **Ward Dunston, Clarkston, Mich.**

Francisco Farm Shorthorns
and Big Type Poland Chinas

Now offering three good bulls and a few choice gilts
bred to Elvetrand Revelation 2nd.
P. P. Pope, Mt. Pleasant, Mich.

BIDWELL SHORTHORNS

Revolution. Jr. 573938
heads accredited herd
28917. Now offering 2 January roan bull calves of
exceptional merit, reasonably priced.
BIDWELL STOCK FARM, Box D, Tecumseh, Mich.

Wildwood Farm Milking Shorthorns. An accred-
ited herd bred for beef and milk.
Headed by King Sales, grandson of Glenside Dairy
King. Fresh cows and heifers priced reasonably. Vis-
itors welcome. **Beland & Beland, Tecumseh, Mich.**
Paved Road No. 50.

When In Need of Red Polled Bulls,
Cows or Heifers. Buy
from Michigan's leading herd, owned by Westbrook
Bros., Ionia, Mich.

Milking Shorthorns all ages, either sex,
sale by members of
Central Michigan Shorthorn Breeders' Association.
M. E. MILLER, Secretary, Greenville, Mich.

For Polled Shorthorns Milk Strain, Either
Sex. **Paul Quack,
Sault Ste. Marie, Mich.**

Red Polled Cattle for sale. Bulls ready for
service. Cows with calves and
heifers. **G. A. Calhoun, Bronson, Mich., R. 1.**

FOR SALE a number of head of registered
Durhams. T. B. tested. Write
FRANK L. KRUPP, Grand Ledge, Mich.

HOGS

DUROC JERSEYS SOWS
AND SPRING PIGS

Bred Sows, long body and heavy bone; excellent
breeding; finest practical type, to farrow April 15 to
May 15.

Spring Pigs, boars and sows, fine thrifty fellows
at 8 weeks. Orders booked in advance; an econom-
ical way to get into thoroughbred stock.
Every pig guaranteed satisfactory to you when you
have received it. Send for photos, description and
brood.

STATE FARMS ASSOCIATION
307 N. Rose St., Kalamazoo, Mich.

Registered Durocs

FOR SALE—Young boars and gilts bred from the
best herds in Michigan and Ohio, at reasonable prices
and fully guaranteed. **W. E. Bartley, Alma, Mich.**

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

FOR SALE Duroc Jersey Fall Boars of the
Heavy-boned, low-down type.
Chas. A. Bray, Okemos, (Ingham Co.), Mich.

FOR SALE Choice Registered Durocs, Jer-
seys, fall boars. **Matt. Mat-
thysse, Custer, P. O. Address, Byron Center, Mich.**

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

Duroc Jerseys Extra choice bred gilts
at reasonable prices.
CAREY U. EDMONDS, Hastings, Mich.

LARGE TYPE Chester White Gilts. Bred for
spring farrow. Bred to Denby's
Giant, of Colonel Denby and The Monster Breeding.
Prices very reasonable. **W. H. Bentley, Lenox, Mich.**

Chester White Gilts Fall and Spring
Pigs. Spanish
Jack. ALDRICH & WILLIAMS, Tekonsha, Mich.

20 BRED GILTS

O. I. C.'s and Chester Whites. Bred from prize
winners, at farmer's prices. Booking orders now for
spring pigs. **John Gibson, Fosters, Mich.**

O. I. C.'s 75 spring pigs, pairs not akin, from
3 good sires, also fall pigs, recorded
free. **Otto Schulze & Sons, Nashville, Mich.**

25 Reg. O. I. C. Sows, Bred for April and May
Farrow. All Stock Shipped on Approval. Priced
Right. **Fred W. Kennedy, R. 2, Plymouth, Mich.**

O.I.C.'s Sept. pigs, Giant Boy. "Giant Boy." Senior
Champion at West. Mich. State Fair, 1923.
Milo H. Peterson, R. 2, Ionia, Mich., "Elmhurst Farm."

O. I. C. 5 young service boars, 8 gilts for April far-
row, and Buff Rock eggs, \$1.00 per 15 eggs.
Glover Leaf Stock Farm, Monroe, Mich., R. 1.

Hile's Good Polands

Big, easy feeding, quality Polands. That's the kind
we like and sell. Bred gilts and sows for sale. A
hundred years of constructive breeding back of them.
WESLEY HILE, Ionia, Mich.

L. T. P. C. Bred gilts. Fall pigs, either sex,
Brown Swiss Bull, Calved 4-23-23.
A. A. Feldkamp, Manchester, Mich.

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

CENTAUR SMALL FARM TRACTOR

Displaces the Horse on the small farm. Pays for itself in the saving of time, labor and Horse Feed. Makes the hard jobs easy. "New-Way" Air Cooled Motor, Hyatt Roller Bearings, Bosch Ignition, Automatic Governor, 13 inches Axle Clearance.

Plows 7 inches Deep in Clay Sod - Riding Attachment for Harrowing, Dragging, Planting, Cultivating, Mowing, etc. A portable Power Plant for Sawing Wood, Grinding Feed and doing the many power jobs on the small farm. Costs only \$8 to 10c per hour to run. Has REVERSE—

Backs On Its Own Power 5 years' successful performance has proven the CENTAUR the most economical, reliable and efficient small tractor made. Liberal Terms. Money-Back Guarantee. Write for illustrated Catalog.



THE CENTRAL TRACTOR CO.
152 Central Ave., Greenwich, O.

SEED CORN THAT GROWS

EXTRA SELECTED GERMINATION GUARANTEED

Improved Leaming	\$3.50 per bu.
Pride of the North	\$4.00 per bu.
Early Yellow Dent	\$4.00 per bu.
Johnson County White	\$4.00 per bu.
Early Butler	\$4.00 per bu.
Virginia Enslage Corn	\$3.50 per bu.
Canadian—No. 47 Swedish Oats	\$1.00 per bu.
Fancy—No. 40 Swedish Oats	\$1.00 per bu.
Swedish—No. 55 Oats Extra @ 15c each	\$1.80 per bu.

Will furnish samples upon request. Any seeds that are not satisfactory, may be returned to us, and your money will be cheerfully refunded.

J. P. EASTON, SEEDGROWER, Monroeville, Ohio.

FOR SALE

LIGHTING PLANT 110 VOLT

Fairbanks Morse 10 H. P. Engine, 7 1/2 K. W. Generator, 10-B. B. L. Cooling Tank and a large storage battery. Switch Board, 10,000 ft. heavy copper wire, 15 meters and all the fixtures required to light a small village, street lights, etc. Just the thing for a large farm or fair sized village, will run small motors. Reason for selling: Edison Co. came in. Write for our price.

LAMB LIGHTING CO.
Lamb, Mich.

POULTRY

DAY OLD CHICKS

Pure bred poultry, bred and culled for years for egg production. Barred and White Rocks; R. C. and S. C. Reds; White Wyandottes; White and Buff Orpingtons; Anconas; American and English White Leghorns; Brown and Buff Leghorns. This is practical production stock that will make you money. Send for description and price list, and note egg records reported by our customers.

STATE FARMS ASSOCIATION
307 N. Rose St. Kalamazoo, Mich.
Active Member International Baby Chick Association

EGG BRED CERTIFIED CHICKS

from our Free range flocks of Hollywood and Barron Improved English White Leghorns, 250-300 Egg-bred line, Sheppard's Strain of Anconas direct. Parks strain Br. Leghorns & Barred Rocks. Quality and high egg yield due to 11 years careful breeding on our 65 acre farm. Cull, mated, rated by experts. Strong vigorous chicks. 100 percent live delivery. Extra selected chicks 100, \$14; 500, \$35; Barred Rocks 100, \$18; 500, \$35. Write for catalog and prices on selected Star matings. Postage prepaid.



POULTRY FARM
ZEELAND MICH.

STURDY CHICKS

From high grade, heavy egg producing strains of S. C. White Leghorns, S. C. Rhode Island Whites and White Wyandottes. All from pure bred, healthy, vigorous stock, carefully culled and tested to insure your getting chicks that will be easy to raise, develop rapidly and become heavy winter layers. Shipped postpaid, 100% live delivery guaranteed. Catalog Free. COLUMBIA HATCHERY, HOLLAND, MICH.

RELIABLE CHICKS

S. C. English White Leghorns and Barred Rocks. Every chick from carefully-mated, culled pure-bred flocks, owned and developed by us for 15 years. Flocks mated with males from 200-280 trap-nested hens. Free Catalog. Write for prices.

Reliable Hatchery and Farms
74 East 16th St., Holland, Mich.

White Leghorn Baby Chicks

TANCRED-BARRON 200 to 300-egg bred line. Wonderful layers of large white eggs that bring premium prices. Over 2,000 selected breeders on free range. Got quality chicks from these tested layers, mated to the choicest pedigree sires, 11 1/2 cent and up. 100 percent live arrival guaranteed by prepaid parcel post. Write at once for valuable illustrated catalog and latest price list.

J. PATER & SON R. 4 Hudsonville, Mich.

CHICKS BARRED ROCK, English Strain White Leghorns and Brown Leghorns. Guarantee full 100 percent alive. Free Delivery. Hillview Poultry Farm & Hatchery, C. Goven, Prop., R. 12, E. F. Holland, Mich.

BELIEVES TRUTH IN FABRICS BILL WILL BECOME LAW.

WHATEVER action Congress may take in regard to truth in fabrics legislation has not been disclosed, nevertheless the sub-committee of the Interstate committee of the Senate, composed of Senators Fess of Ohio, Couzens of Michigan, and Mayfield of Texas, has heard some forceful truths from the farm organization leaders regarding the demand of farmers for truth in fabrics.

"I am confident," said Gray Silver of the American Farm Bureau Federation, "that the truth in fabric bill will become a law. Whether this session or not I cannot say. I can assure the sub-committee now considering the bill, however, that twenty-two years of waiting for such legislation with persistent requests on Congress have worn the farmers' patience about as threadbare as a suit of shoddy clothes which have been caught out in the rain a few times.

"More than 80,000,000 pounds of shoddy are used annually in this country, and it makes a great difference to the public how it is sold. What a protest would be raised if second-hand cotton were used in automobile tires, so they would run only a few hundred miles and explode at the most inopportune time. Instead of using shorter, weaker and inferior fabrics, the auto tire manufacturers are using longer, stronger and better fabrics, and advertise the fact. The clothing manufacturers hide behind the terms "wool," "all wool" and "pure wool," and mislead the public and utilize shoddy in large amounts in the garments they sell. No merit that a second-hand article or substitute may possess can justify the fraud of permitting the public to believe the second-hand article is new."

PIGS HAVE RUN OF THIS FARM.

EVERY field on Pine Ridge Farm is hog tight and to this fact is attributed much of the success which attends its annual production of pork. "The pigs have full run of this place," states the owner. "The sows are bred to farrow early in July."

The methods followed here are somewhat unique but they have been more than ordinarily successful. We believe in summer pigs. The young animals suffer few of the discomforts that are usually incident to earlier farrowing and it is possible for them to 'follow the crops' to considerable advantage.

The first pasture onto which they are turned is the oats stubble. They are given the run of other fields as rapidly as crops mature and wind up the season with the corn stubble. Some corn is always hogged down.

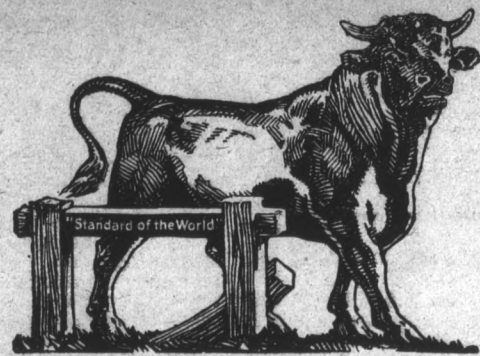
No set rule is followed, but our idea is to permit the youngsters the freedom of the farm from the time they are old enough to go on pasture in August until it becomes too cold for them to stay out. Strong, sturdy pigs go into the hog house in the late fall.

The animals are ready to market the following June. This leaves our hog quarters practically empty with exception of the brood sows.—O. Crooker.

RECOMMENDS APPROPRIATIONS FOR INSTITUTE.

PRESIDENT Coolidge has recommended an appropriation to cover the expenses of nine delegates to represent the United States at the general assembly of the International Institute of Agriculture at Rome in May. He has also recommended an appropriation for expenses incurred in admitting Hawaii, the Philippines, Porto Rico, and the Virgin Islands to the Institute. Congress has taken no action in the matter.

Says Sam: To make people like you, just like them.



Good old "BULL" DURHAM

For real enjoyment and real tobacco taste—settle down for life to genuine "BULL" Durham tobacco. You can't beat it for quality and flavor. And you get a lot of smokes for your money—with the new price—

now **2** Bags
for
15c

Guaranteed by
The American Tobacco Co.
INCORPORATED

Veri-Best Chicks

Postpaid to your door. 100 per cent Live arrival guaranteed. From Pure-bred, Select, Heavy Layers. Reference: First National Bank. You can order right from this Ad. with perfect safety.

Varieties.	Prices on 50	100	500
Wh. Br. Buff Leghorns, Anconas	\$7.00	\$13.00	\$60.00
Barred Rocks, Reds, Blk. Min.	8.00	15.00	72.00
White Rocks & Wyandottes	8.50	16.00	77.00
Buff Orpingtons	8.50	16.00	77.00
Mixed chicks, 10 cents each, straight, 12 cents each. You take no chances. Only 3 hours from Detroit. QUALITY CHICK HATCHERY, Box A, Wauseon, Ohio.			

Improved S. C. WHITE LEGHORN BABY CHICKS

We have been carefully breeding and culling our flocks for 11 years. Get your chicks from a breeder with prices as low as the city hatcheries. Our chicks give satisfaction. Postpaid. 100 percent live arrival guaranteed. Circular free. OTTAWA HATCHERY & POULTRY FARM, R. No. 10 Holland, Mich.

300,000 CHICKS

Eggs, Pullets and Breeding Stock Aristocrat Strain Barred Rocks, both light and dark matings. Sheppard Strain S. C. Mottled Anconas, 250-280-egg strain. Tom Barron S. C. White Leghorns, heavy layers. Write for catalog giving details as to breeding. Special discount on early ordered chicks. Can all orders promptly. FAIRVIEW POULTRY FARM, R. 2, Box E, Zeeland, Mich.

FARMS AND FARM LANDS FOR SALE

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

240 ACRE FARM. Large dwelling, lights and water, two large doorways, porches and bay window, shade and lilac bushes. Large barn, productive soil, well located. To close estate will be sold for \$6,500, best of terms. 10000 County Bank, Whittemore, Mich.

337 Acres, Horses, Crops 22 Cows, Tools; \$1500 Cash

Owner called away by urgent business interests makes big sacrifice; convenient P. O., stores, schools, creamery, churches; good markets; 200 acres loamy fields, big creek-watered pasture, wood, timber; comfortable 10-room house, running water, 90-ft. basement barn valued \$4,000, sheds, tool house, etc. Low price \$4,500, horses, 22 cows, full implements, tools, crops. Only \$1,500 needed. Details and how 20 acres of one crop brought farmer \$14,800, page 55 Big Illus. Bargain Catalog Money-making farms, best sections United States. Copy free. STROUT FARM AGENCY, 205 BC Kresge Bldg., Detroit, Mich.

For Sale Eighty-acre farm, Saginaw Co., equipped. Near pavement. Best soil and markets. Price \$6,500; \$2,000 down. S. L. BIGFORD, Genesee Bank, Flint, Mich.

Fruit Farm For Sale Twenty-seven acres on lake, one mile from good town on State Road. Reasonable price. For particulars, write M. J. Waltemate, R. 3, Hastings, Mich.

Would you Buy a Home? With our liberal terms. White people only, good land, healthy progressive country. Write for list, Mills Land Co., Booneville, Ark.

FOR SALE 80 acres, 4 miles from Gaylord. 60 acres cleared, balance wood lot, mostly sugar maple trees. Good buildings and well. Near school. Henry Widger, Gaylord, Otsego Co., Mich.

IF YOU WANT TO LIVE in California write Kings commerce, Hanford, California, for free booklet.

80 Acres Newaygo Co., Good farm home. For particulars address—Alex K. Martin, 9783 American, Detroit, Phone Gar. 1559-R.

HOGS

Hampshire Bred gilts, spring and fall boars, your wants. John W. Snyder, R. 4, St. Johns, Mich.

Hampshires Best of breeding. Choice gilts bred to farrow March and April. Herman Barchet, R. 3, Watervliet, Mich.

HORSES

Intending Buyers of Percheron or Belgian Stallions. Write me. Have a large list to choose from. Price \$350 to \$1,000. Fare paid from here. F. J. Sullivan, 550 King Ave., Detroit.

B ELGIAN Stallion for sale, roan, coming 4 years, right good one ton type. Sire and dam both imported. Save this ad. It will not appear again. Emory Olmstead, Coldwater, Mich., R. No. 1.

Registered Belgian Stallions For sale or trade. Chas. Baumberger, Waterville, O.



THE LATEST MARKET REPORTS



GRAIN QUOTATIONS

Wednesday, March 26

Wheat.

Detroit.—No. 1 red \$1.06; No. 2 red \$1.05; No. 3 red \$1.02; No. 2 white \$1.06; No. 2 mixed \$1.05.
Chicago.—May \$1.01½; July \$1.03¼; September \$1.03½.
Toledo.—Cash \$1.05@1.06.

Corn.

Detroit.—Cash No. 2 yellow at 81c; No. 4 yellow 77c; No. 5, 71@73c; No. 6, 68@70c.
Chicago.—77½@77½; July at 78½; September 79½.

Oats.

Detroit.—Cash No. 2 white at 50½c; No. 2 48½.
Chicago.—May at 45½c; July 44c; September 41½.

Rye.

Detroit.—Cash No. 2, 66.
Chicago.—May 65½c; July 67½.
Toledo.—67.

Barley.

Barley, malting 74c; feeding 70c.

Buckwheat.

Buckwheat.—New milling at \$2.00 per cwt.

Beans.

Detroit.—Immediate and prompt shipment \$4.65@4.70 per cwt.
Chicago.—Navy \$5.10@5.15; red kidneys \$7.50.

New York.—Choice pea at \$5.75; red kidneys \$7.50@7.65.

Seeds.

Detroit.—Prime red clover cash at \$11.90; alsike \$9.00; timothy \$3.80.

Hay

Strong.—No. 1 timothy \$24.50@25; standard and light mixed \$23.50@24; No. 2 timothy \$22@23; No. 1 clover at \$22@23; No. 1 clover mixed \$21@22; wheat and oat straw \$12.50@13; rye straw \$14@14.50.

Feeds.

Bran \$32; standard middlings \$32; fine do \$33; cracked corn \$35, coarse cornmeal \$34; chop \$30 per ton in 100-lb. sacks.

Apples.

Chicago.—Barrels, "A" grade Wine saps \$5; Greenings \$4.50@5.00; Jonathans \$5.50@6; Spies at \$4.50@6; Kings \$4@4.50; Baldwins \$4@4.50.

WHEAT

Grain markets registered sharp declines during the week ending March 22 but at the close prices had rallied somewhat, states the United States Department of Agriculture in its weekly grain market review.

Wheat future prices reached \$1.04½ for the May, which was the lowest point since July 25. May corn declined to 77c, which was the lowest point since January 10. Oats prices also were lower but did not decline as much as wheat and corn.

The weakness in the grain future markets apparently was caused more by the unsettled sentiment among speculative traders rather than because of any change in the statistical position of wheat and corn. In the wheat market there are several factors, however, which may have considerable bearing upon the future trend of prices. Stock on farms are not unusually large. The reported intentions of farmers to plant spring wheat during the present season. While the exports of wheat have been only about 65% as large as last year the consumption has been of such volume that it now appears that no burdensome surplus will be carried into the next crop year. The increased duty on Canadian wheat which becomes effective early in April will probably tend to restrict Canadian imports and may become a strengthening factor in the market for both spring and hard winter wheat. Stormy weather and bad road conditions restricted movement of wheat to the interior markets during the current week and cash prices advanced 2c-3c per bushel. The decline in cash prices at most of the markets did not reflect the full decline in the future prices, because of the scarcity of good wheat which was in fairly active demand.

CORN

Corn markets gained more strength toward the last of the week and cash prices 2c-3c for the week at most markets. Country movement was light because of the bad roads and while there was no material increase in the demand the small arrivals were well absorbed at the higher prices. Corn prices are still above last year's level

and with the decreasing demand caused by heavy marketings of livestock, together with a contemplated increase of about 3% more acreage this year it may be difficult for the corn market to develop any unusual strength.

Receipts were very light and while farmers are reported to be very anxious to sell in sections of the Central West it is probably that no large increase in the movement will take place after the more pressing spring work is finished.

OATS

The oats market was relatively firmer than for wheat and corn. Receipts were light and the demand continued fairly active. Prices at the close of the week were about 1½c higher than at the close of the previous week.

RYE

Larger export of rye were reflected in a firmer market for the grain. Shippers were active buyers at Milwaukee and other central western markets. Stocks of rye at Omaha are being shipped to New Orleans for export and a continued good export demand is reported from France and Scandinavia. One hundred thousand bushels were reported exported, to these countries during the week.

BEANS

After a rather long sinking spell the bean market came to life at the close of last week and prices were jumped 20 cents overnight. Choice hand-picked whites were held at \$4.90 per 100 pounds f. o. b. Michigan points. Demand is fair but not urgent enough to occasion such a spurt which is blamed in part upon manipulation by dealers. If this proves to be true, it is questionable whether the advance will hold, especially since elevators are supposed to have fair stocks of beans on hand.

SEEDS

Cloverseed prices have lost practically all of their recent gains, liquidation of speculative holdings in the Toledo market caused by failure of the spring demand to absorb holdings was the main factor. Domestic seed prices were stronger than foreign seed. During the first half of March imports of red clover amounted to 4,075,000 pounds. Timothy seed declined along with clover. Alsike has been firmer than red clover as it is nearer a bargain level.

Live Stock Market Service

Wednesday, March 26

CHICAGO

Hogs.

Receipts 29,000. Market very slow and 5 to 10c lower than yesterday's best kind, or about steady with extreme close. Light weights show most decline. Big packers bidding up to \$7.20 for good offerings. Bulk good and choice 150 to 225-lb. weight \$7.25@7.40. Tops \$7.40. Good 250 to 325-lb. butchers \$7.25@7.35. Bulk packing sows \$6.55@6.65.

Cattle.

Receipts 800. Market beef steers and yearlings uneven. Steady to strong. Stots higher. Best medium weight and heavy steers early \$11.85. Yearlings liberal offerings. Fat she stock, handy weights and heavy vealers steady. Bulk to packers \$10.00@10.50. Light vealers lower. Canners, cutters and bulls slow. Stockers and feeders steady.

Sheep and Lambs.

Receipts 8,000. Market fairly active. Fat lambs strong to 25c higher. Sheep and feeding lambs strong. Bulk fat wooded lambs \$15.75@16.25. Best kinds to shippers \$16.50@16.55. Choice medium fat ewes upwards to \$11.50. Best shearing lambs \$15.75.

DETROIT

Cattle.

Market steady to 25c higher. Good to choice yearlings, \$ 8.75@ 9.50. Best heavy steers 8.00@ 8.75. Handyweight butchers .. 7.25@ 8.00. Mixed steers and heifers. 6.50@ 6.75. Handy light butchers 6.00@ 6.50.

FEEDS

Feed prices declined further last week. Flour mills are pressing wheat feeds, especially middlings, on the market while consuming demand is light. Oil meals are sharply lower than a week ago under heavy offerings from mills and jobbers.

HAY

Most hay markets are firm with receipts light and the best grades in good demand. Bad roads are checking the movement in some sections. The drouth in California resulted in a very complete cleanup of old crop alfalfa in the southwest so that shipments to midwestern markets from the first cutting which will be made next month will be smaller than usual.

POULTRY AND EGGS

Egg prices are slightly lower than a week ago. Receipts at the leading markets are not as heavy as at this time last year but a small movement into storage is under way and the demand for this surplus is the chief factor in determining prices.

Poultry prices are holding fairly steady and in some cases are higher than a week ago. Receipts are unusually large but consumptive demand is equally broad.

Chicago—Eggs: miscellaneous, 20@20½c; dirties, 19@19½c; checks, 18½@19c; fresh firsts, 21@21½c; ordinary firsts, 19½@20c; Live poultry: Hens, 24c; springers, 30c; roosters, 17c; ducks, 28c; geese, 18c; turkeys, 25c.

Detroit—Eggs: Fresh candled and graded, 22½c. Live poultry: Heavy springers, 28c; light springers, 25@26c; heavy hens, 27@29c; light hens, 23@24c; roosters, 16@17c; geese, 20@21c; ducks, 32@34c; turkeys, 28@30c.

BUTTER

Butter prices declined slightly early last week as dealers are providing only for their immediate needs. A stronger undertone was apparent at the close of the week. The supply of fine quality butter was relatively more ample than of undergrades. It is reported that a substantial quantity of Argentine butter is due before the end of March and a shipment of about 22,000 boxes of New Zealand butter in the first week in April.

Prices on butter on March 22 were: 98 score fresh butters: Chicago, 46½c; New York, 47½c. In Detroit fresh creamery in tubs sells for 46@47c.

POTATOES

The carlot movement of potatoes remains heavier than normal for this time of year but prices last week held practically steady. Northern sacked round whites are bringing \$1.30 to \$1.40 per 100 pounds at Chicago and \$1.35 to \$1.50 in bulk. Intended plantings of white potatoes as expressed by producers to the Department of Agriculture show an increase of 2 per cent over last year while the sweet potato acreage will be increased 16 per cent unless growers modify their plans.

APPLES

Distribution of apples from storage during February was about 50 per cent above normal for that month and a third larger than in February, 1923. Nevertheless, remaining holdings on March 1 were nearly 50 per cent larger than a year previous and practically double the five-year average for that date. A little over three months of distribution at the same rate as in February would be necessary to clean up the supply.

DETROIT CITY MARKET

Temporary shortage of potatoes on the Detroit farmers' market together with higher prices paid by dealers caused a good demand Wednesday morning, and a small advance in prices was noted. Cabbages are moving at lower prices as the amount of fresh setter stock increases. Horseradish and dark red beets for the coming Jewish holidays are in good demand. Moderate demand for parsnips, root parsley and other root crops. Good No. 1 apples are selling easily, but seconds find slow sale. Spies are scarce, also Baldwins and Steel Reds. Poultry is in fair demand with prices tending lower. The egg supply is increasing, and market is slow and prices lower. Good veal sells fairly well, but best hogs find light demand.

Wednesday prices: Apples, fancy, 2.00@2.25 per bu; No. 1 \$1.25@1.75 bu; beets, round, \$1.25@1.60 bu; long, \$1.50@2.00; carrots \$1.25@1.50 bu; horseradish \$4.00@4.50 bu; onions \$1.25 bu; green onions 50@55c per doz bnchs; parsley \$4.00@4.50 per bu; parsnips \$1.25@1.50 bu; potatoes 80@90c bu; rutabagas 75c@\$1.00; turnips \$1.50@2.00; eggs wholesale at 23@27c, retail at 26@33c; live hens 27@30c wholesale, retail 30@33c; veal 16@18c; best hogs 12c.

MILK

Fluid milk prices for March were slightly lower than in February in line with the normal trend of prices as the spring increase in production appears. An average price of \$2.69 per 100 pounds for the entire United States was paid for standard grade 3.5 per cent at local shipping points or country stations. This price compared with \$2.76 in February and \$2.67 in March a year ago. Price declines were heaviest in the New England states where many mills are working only part time and families are cutting down their milk consumption. Retail prices in many cities reflect the lower prices to producers.

COMING LIVE STOCK SALES.

Jersey Cattle

May 14—Michigan Jersey Cattle Club, Michigan Agricultural College, East Lansing, (M. H. Roberts, Sec., Ypsilanti.)

Guernseys.

May 6—Berrien County Guernsey Breeders Association, Eau Claire, (Earl Hemingway, Sec., Sodus.)



SERVICE AND SILVER FOXES

Are what I have to offer the prospective Fox Breeder. During my four years as Secretary of the National Silver Fox Breeders' Ass'n a number of instances came to my attention where a beginner's inexperience had been taken advantage of. Since resigning from the above office I have decided to place my four years experience as Secretary and Fox Inspector at the disposal of the uninitiated.

I can be of Service to you in selecting your foundation Stock. I can advise you in regard to ranch location; construction of pens and kennels; breeding, feeding and care of your foxes; marketing of pelts and sale of breeding stock. Reliable Service and Advice of this kind are indispensable to the beginner.

References: Any Muskegon Bank; Central State Bank, Beulah, Mich.; or any member Nat'l Fox Breeders' Ass'n.
JUSTUS E. SMITH, 38 Ransom St., Muskegon, Mich.

MAGNETS CLEAN CLOVER SEED.

Dodder Is Removed by Iron Ore and Current.

THE hope of every farmer the world over has been to some day obtain clover seeds free from weed seeds or dodder as they are called. The reason this dream has not been realized before has been because the two seeds are so identical in size and shape they can scarcely be distinguished one from the other and farmers have bought annually as much dodder as clover seed. Now, however, electricity has come to his aid in this as it has in so many other ways.

The process of separation is very simple. Small particles of iron ore are mixed into the seeds and then the whole is sprinkled with a little water. The wet clover seeds thus remain smooth and slippery, while the dodder seeds secrete a sticky substance and catch hold of the particles of iron. Then the seeds are passed under powerful electro-magnets, while the clover seed moves on free of weed contamination.—Mills.

OVERCOMING CONTROLLING FACTORS.

Sisal for binding twine is controlled through a combination of producers

reinforced by legislative action of the Yucatan government. Nitrates are controlled through a British selling agency and reinforced by export duties in Chili. Potash is controlled by combinations of German producers. Quinine is controlled by a combination of Dutch producers. Coffee is controlled by the government of Brazil. Tin is controlled by a combination of British producers.

Secretary Hoover is confident that a unity of buyers in the long run would be stronger than any combination of producers because the producer usually has the disadvantage of being compelled to maintain continuous production whereas the consumer can so organize his business if necessary as to become an intermittent purchaser.

An apple a day keeps the doctor away,—provided the apple is eaten.

"Thou shalt not plow with an ox and as ass together." Deuteronomy 22: 10.

Ship **Hay and Grain** to the OLD RELIABLE HOUSE
GEO. E. ROGERS & CO., Pittsburgh, Pa

Ship Your Cattle, Hogs and Sheep to **Warns, Iles and Dankert**

Union Stock Yards, Toledo, Ohio. For Top Prices. Big Fills—Quick Returns. Correspondence solicited.

CLASSIFIED ADVERTISING

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

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

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

Rates in Effect October 7, 1922

Words	One time	Four times	Words	One time	Four times
10.....	\$0.80	\$2.40	26.....	\$2.48	\$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

FOR SALE—Improved 320-acre farm, located 1½ miles east of village of Akron, Tuscola County, Michigan, on trunk line M 31, with concrete road to village affording good market for all farm produce. Has large apple orchard, wood lot, with all necessary farm buildings, including two-story house. For further information apply to F. A. Bach, Administrator, Sebawaing, Mich.

FOR SALE—Farm 160 Acres 1½ miles from Onaway, Mich. on State Pike. 125 acres cultivated, some timber. 2½ story 9 room house, furnace, toilet and bath. Bank barn. A. Brenner, Onaway, 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, Mich.

FOR SALE—Good 80 A., 52 A cleared, 22 A seeded, fair buildings, 5½ miles town. R. A. McMillan, R. 2, Remus, Mich.

FARMS WANTED—We have buyers for Michigan farms. Give description and lowest cash price. Warren McRae Farm Agency, Logansport, Ind.

FARMS—40-60-100 acres, rent or sell. House, 2 acres, village, Dryden, Mich. Small thrasher, Polled Shorthorn Bulls. Frank Bartlett, Dryden, Mich.

WANTED—To hear from owner of farm for sale. O. K. Hawley, Baldwin, Wisconsin.

CABBAGE PLANTS—Fullwood's Frost Proof plants will produce headed cabbage three weeks before your home grown plants and will stand a temperature of 20 degrees above zero without injury. I have twenty million now ready. Varieties: Jersey Wakefield Charleston Wakefield, Copenhagen Market, Succession and Flat Dutch. Prices by express any quantity at \$2.00 per 1000. By parcel post, postpaid, 200 for \$1.50 for \$1.75, 1,000 for \$3.00. First class plants and safe arrival guaranteed. P. D. Fullwood, Tifton, Ga.

FROST PROOF CABBAGE PLANTS, Early Jersey, Charleston Wakefield, Flat Dutch, Copenhagen Market and Succession. Prompt Shipment of fine plants. Tomato Plants, Earliana, Redfield Beauty, Livingston Globe and Greater Baltimore. Postpaid, 250 for \$1.00, 500 for \$1.00, 1,000 for \$3.00. Express Collect, \$1.50 per 1,000. Tifton Potato Co., Inc., Tifton, Ga.

MILLIONS open field grown Cabbage and Tomato Plants, for immediate shipment. Leading Varieties. 1,000, \$2.50 postpaid; 5,000, \$7.50 by express, good plants and safe delivery guaranteed. Schroer Plant Farms, Valdosta, Ga.

SEED CORN—30 bu. large yellow Dent, 1922 crop. Tests 90 and better. Heavy yielder. Write. Will Trego, Hastings, Mich.

BUSINESS stationery for farmers, dairymen, poultrymen. Rock bottom prices. Free cut service. Samples Free. National Printing Company, Worcester, Mass.

HAY FOR SALE—Write for prices delivered your station. E. D. White, Rudyard, Mich.

IMPROVED ROBUST BEANS—Heaviest yielding existing variety and latest improved Agricultural College Strain. Ninety-four per cent germination. Not polished or hand-picked. Ninety-pound bag, six dollars. Oswosso. Will pick about three pounds to bag. A. B. Cook, Oswosso, Mich.

GLADIOLUS—Beautiful large flowering varieties mixed 50 fine bulbs. Postpaid, \$1.00. Satisfaction guaranteed. Phil Laesser, Sun Prairie, Wis.

FANCY Mixed Color Gladioli Bulbs 1½ to 2 inches. 50—\$1.00. Average 1 inch, 100—\$1.00 postpaid. Martha Osmond, Vernon, Mich.

CHOICE GLADIOLUS BULBS—Many varieties. Write for price list. George Hunter, 412 Evergreen Ave., East Lansing, Mich.

NO BIG "rosy" catalogs. Just good stock! Low price lists ready. Write today. Now. Gobles, (Mich.) Nurseries.

STRAWBERRY PLANTS—Plants Right. Prices Right. Perry Wright, Fennville, Mich.

FOR SALE—Threshing outfit, nearly new. One-third price if sold quick. C. Smead, Grand Haven, Mich.

PRINTING—Poultrymen, Hatcheries, Farmers, Business men, get our prices on Stationery, Catalogs, Etc. Samples. Stamps Please. Mendel's Printing House, Grand Rapids, Mich.

QUALITY PRINTING for Business Farmers! Write for our prices on envelopes and letterheads. The Premier Printers, Lock Box 29, Midland, Michigan.

TREES, plants, shrubs, grapevines. Catalogue free. Land's Nurseries, St. Joseph, Mich.

SAFETY RAZOR BLADES Sharpened. Single Edge Blades, 25c a dozen. Double Edge Blades, 35c a dozen. Satisfaction Guaranteed or money refunded. Flack & Company, South Bend, Indiana.

BOYLAND BEANS—We specialize in Manchu and Midwest soybeans, and inoculation. Also calico seed corn, and Victory oats. Get our catalogue and prices. Fouts Bros. Camden, Ind.

ORDERS now booked for best varieties of vegetable plants at \$10 per 1,000. Price of potted and flowering plants on application. Chelsea Greenhouse, Chelsea, Mich.

CERTIFIED Wisconsin Pedigree Bailey and Wolverine oats. Won 1st at Grand Rapids, 2nd at Detroit and Saginaw fairs. John C. Wilk, Alma, Mich.

SEED POTATOES—Certified, Pedigreed. Yield 300 bushels. Butternut Farm, Lupton, Michigan.

BUY your alkali seed from the grower, also soy-beans. C. W. Johnson, Palms, Mich.

SEED CORN—Clement's Improved White Cap Yellow Dent. Field selected, dried on racks, ear tested, with a guaranteed germination. This was one of the heaviest yielders in the State the past year in a test made by The Farms Crop Department of the Michigan Agricultural College. Write Paul Clement, Britton, Michigan, for catalog and prices.

FREE CATALOG of high-quality strawberry, raspberry plants. Some kinds \$2.75 a 1,000. Write today. C. D. Thayer, Three Rivers, Mich.

BERRY BOXES—Our Berry Boxes will carry your fruit to market safely. \$4.50 per thousand. Write us. Central Basket Co., Berrien Springs, Mich.

GLADIOLI—25 big plump bulbs, fine varieties, and catalog postpaid, \$1.00. B. F. Kindig, Box 637, E. Lansing, Mich.

IF IT'S RUSSETT Rural Seed Potatoes you want, write for prices. Twin Boy Farm, Alba, Michigan.

FREE CATALOG. Carpenter's Auction School. Largest in world. Hall Bldg., Kansas City, Mo.

PET STOCK

GERMAN SHEPHERD—Alredales, Collies, Old English Shepherd dogs, puppies. 10c illustrated instructive list. W. B. Watson, Box 35, Mason, Mo.

FOR SALE—Collie puppies. Heel-driving champion ancestors. Males, \$12; females, \$10. Caleb Eldred, Climax, Mich.

FERRIS. A few ratters left. Thos. Sellars, New London, Ohio.

REGISTERED Scotch Collie Puppies from natural heelers. Silvercrest Kennels, Gladwin, Mich.

TOBACCO

HOMESPUN TOBACCO—Chewing, 5 lbs. \$1.75; Ten \$3.00. Smoking, 5 lbs. \$1.25; Ten \$2.00. Pay when received, pipe and recipe free. Farmers' Union Paducah, Ky.

NATURAL LEAF TOBACCO—Chewing, five pounds, \$1.75; ten, \$3; smoking, five pounds \$1.25; ten, \$2; twenty, \$3.50. Pipe and recipe free. Send no money. Pay when received. Kentucky Tobacco Company, Paducah, Ky.

KENTUCKY Natural Leaf Tobacco. Best Grade Chewing 10-lbs. \$3—20 \$5. Best grade Smoking 10-lbs. \$2.40—20 \$4. Farmer's Tobacco Union, Rt. 1, A. Sedalia, Kentucky.

HOMESPUN TOBACCO, five pounds chewing, \$1.75; ten, \$3; twenty, \$5.25. Smoking, five pounds, \$1.25; ten, \$2; twenty, \$3.50. Pipe and Recipe free. Send no money. Pay when received. Kentucky Tobacco Company, Paducah, Ky.

TOBACCO—Dandy smoking leaf scraps. 10 lbs. \$1.00. Pay for tobacco and postage when received. FARMERS' GRANGE, Hawesville, Ky.

SMOKERS' ATTENTION—100 High Grade Stogies \$2.75. Satisfaction Guaranteed or Money Refunded. Flack Cigar Company, South Bend, Indiana.

BABY CHICKS

BRED TO LAY Barred Rock chicks, hens, all blood tested for White Diarrhea by Michigan Agricultural College Bacteriological Dept. Pedigreed males from high-record hens used. Circular free. L. W. Aseltine, R. 1, Grand Rapids, Mich.

CHICKS—Genuine Tom Barron English Strain S. C. White Leghorns, bred from imported Stock, and M. A. C. Barred Rocks. Write for our low price quality stock circular. Hillside Hatchery Farm, R. 3, Holland, Mich.

CHICKS—From 8 varieties; select heavy laying and exhibition stock. \$11 per 100 and up. Can't be beat for the money. Postage paid. 100 percent live delivery guaranteed. Send for prices. The Monroe Hatchery, Monroe, Mich.

BABY CHICKS—Write for our new free catalog and price list. Eight years' experience. H. H. Pierce, Jerome, Michigan.

QUALITY CHICKS, eggs; fifteen standard bred varieties; best winter laying strains. Free delivery. Reasonable prices. Catalogue free. Missouri Poultry Farms, Columbia, Mo.

BABY CHICKS from heavy-laying strains. All leading pure breeds. Low prices. Prepaid. Live delivery guaranteed. Catalog Free. Smith Bros. Hatcheries, Mexico, Mo.

100,000 HOLLYWOOD—Barron White Leghorn chicks. Foundation stock. 250-288 egg lines. Supreme quality. 100, \$13.00; 1,000, \$125.00. Postpaid. Order from this ad. Catalog. Highland Poultry Farm, Holland, Mich., R. 9, Box C.

BABY CHICKS—Remarkable for size and strength. Reasonable prices. Leghorns, Anconas, Rocks, Reds, Wyandottes, Orpingtons, Minorcas, Spanish, Brahms, Tyrone Poultry Farm, Fenton, Mich.

HA! LO'K! 100,000 chicks 12c and up. 15 varieties. From highest producing contest winners. Hatchery eggs. Circular. Lawrence Hatchery, Box J, R. 7, Grand Rapids, Mich.

RICHARDSON'S ROCKY RIDGE pure Parks strain Barred Rock Baby Chicks, \$16 per 100. Hanover, Mich.

BABY CHICKS and eggs. Superior Ringlet Barred Rocks, R. C. R. 1, Reds, White Leghorns. Circular. Wyndham's Ideal Hatchery, Tiffin, Ohio.

BABY CHICKS—Rocks, Reds, Silver L. Wyandottes, White Wyandottes, Anconas, White and Brown Leghorns have been culled and inspected. We have real quality at commercial prices. One of the oldest hatcheries in Michigan. Write for prices. Shepard Poultry Farm, Litchfield, Mich.

PURE-BRED baby chicks, Barred Rocks, Rhode Island Reds, \$14.50 per 100; White Wyandottes, Buff Orpingtons, \$16.00; 98 per cent live delivery guaranteed. Brookdale Poultry Farm, Box 522, Paw Paw, Michigan.

CHICKS AND EGGS. Order now from my heavy laying strains. Rocks, Reds, Anconas, White and Brown Leghorns. Frank Heinz, Comstock Park Mich.

BABY CHICKS—Leghorns, Rocks, Reds, Wyandottes. 100 per cent live guaranteed. Write for price list. P. W. Stone Hatchery, Fenton, Mich.

BABY CHICKS—Bred to lay Rhode Island Reds, Barred Rocks & English White Leghorns. Also Broiler Chicks. Goret's Poultry Farm, Corunna, Mich.

SILVER WYANDOTTES—Heavy layers, mated to produce stock of exhibition quality. Chicks—April 20c each, May 18c delivered. Not less than 25. Order now. Wishbone Hatchery, Sebawaing, Mich.

BAB'S BIG, beautiful, brilliant Reds S. C. Chicks. Eggs, Stock, Quality at farmers' prices. Babcock & Son, R. D. 6, Battle Creek, Michigan.

BABY CHICKS—Barron S. C. W. Leghorns, 10c up. Park Strain Barred Rocks from 14c up. Sent by parcel post. 100 per cent live delivery guaranteed. Waterway Hatchery, R. 4, Holland, Mich.

S. C. BUFF LEGHORN Baby Chicks from good laying strain. Willard Webster, Bath, Mich.

POULTRY

THE EVERGREEN White Wyandottes proving themselves the best of egg producers. Making startling records. They won the cup for winter production at Michigan Egg Laying Contest last year. They won all the firsts at Grand Rapids show and all but one at Lansing (in production class). Now leading all heavy breeds at both Michigan and Ontario Egg Laying Contests. Write for circular and get the best. Evergreen Poultry Farm, Dep't. A, Greenville, Michigan.

STOCK AND EGGS by 100 or 1,000 lots, all leading Varieties Chickens, Ducks, Geese, Bantams, Guinea, Turkeys, Fox Terrier Pups. Write your wants, Jesse Burnside, Judson, Ind.

GEESSE EGGS that hatch—from our special Mammoth Toulouse matings, 40c each; from sales flock, 10c. Order from this ad, now. Satisfaction guaranteed. Hawthorn Hill Farm, Middleville, Mich.

BARRED ROCKS, Eggs and cockerels for sale at reasonable prices. Write for circular: Fair View Poultry Farm, R. 3, Hastings, Mich.

YEARLING Barred Rock Pullets, \$2.50 each. Barron White Leghorn and Rock Chicks, Low prices. H. Close, Tiffin, Ohio.

SINGLE COMB REDS—Selected eggs from strong matings. Win M. A. C. Silver and Bronze Medals. Birds under Ribbons in both exhibition and utility classes. Postal card request brings free circular. Satisfaction guaranteed at let live prices. Harry J. Theis, 283 Hunter St., Battle Creek, Mich.

PULLETS—Barron English and Ferris American Leghorns. Eight weeks, 85c. Barred Rocks, White Rocks, Rhode Island Reds, \$1. Ready April 21st. Early Hatches make bigger, stronger birds. Early fall and winter eggs. Rufus Morse, Belding, Mich.

STOCK & EGGS—Buff & W. Leghorns, Orpingtons, Reds & Anconas, \$1 for 15; \$5 per 100, parcel post. Turkeys, Ducks & Geese, Indianapolis winners. W. C. Jackson, R. 3, South Bend, Ind.

WHITE WYANDOTTES—A few hens and pullets from my heavy laying strain at \$2.50 each. Hatching eggs, \$2.00 and 3.00 per 15. David Ray, Ypsilanti, Mich.

ROSE COMB REDS—heavy layers, winners 1st cockerel, 2nd young hen, Michigan Red meet. Order eggs now. Mating list on request. L. B. Hendrickson, 81 Frisbie Ave., Battle Creek, Mich.

RHODE ISLAND White hatching eggs, \$1.25 per 15. \$7 per 100. Best winter layers, chicks \$20 per 100. White China goose eggs, 30 cents each. Hillview Farm, Mattawan, Mich.

S. C. BLACK MINORCAS—Heavy birds, Northrup strain. Hatching eggs, \$1.50 for 15. \$8.00 per 100. C. J. Deedrick, Vassar, Mich.

REGAL-DORCAS White Wyandotte and Bourbon Red Turkey eggs for hatching. Chas. A. Beatty, Milford, Mich.

S. C. BROWN LEGHORNS—Record producers. Fresh selected range eggs postpaid. 30, \$2.40; 45, \$3.10; 100, \$5.75. Floyd Robertson, Lexington, Indiana.

BUFF ROCK EGGS—\$1.05—15; \$6.00—100. Hendrick Bros., Shelbyville, Mich.

RHODE ISLAND REDS—Rose Comb. Large fancy cockerels and pullets, \$3 each. Burt Sisson, Inlay City, Mich.

S. C. R. I. REDS—Pure-bred eggs for setting, 15, \$1.25; 100, \$8.00. Louis Morris, R. 1, Mt. Morris, Michigan.

QUALITY Barred Rocks, some good cockerels for sale for \$5. A few pullets. George H. Campbell, E. Cross, Ypsilanti, Mich.

SNOWY WHITE ROCKS, Fishel strain. Eggs prepaid, 15—\$1.50; 50—\$3.75; 100—\$7.00. Mrs. Earl Dehnhoff, Vanburen, Ohio.

GIANT BRONZE TURKEYS—Gold Bank Strain. A few choice toms and hens at reasonable prices. Mrs. Perry Stibbins, Saranac, Mich.

FOR SALE—10 Michigan Bronze turkey hens, utility stock. Each \$5.00, two for \$8, three for \$12. Mrs. Ole Martinson, Northport, Mich.

MAMMOTH Pekin Duck eggs—\$1.50 for 12, \$2.75 for 24 or \$9.00 per hundred. W. Bixby, R. 4, Davison, Mich.

EGGS FOR SALE—Ringlet Barred Rocks bred to lay, weigh and win, \$1.50 per setting or \$5.00 per 100. Robert Martin, Woodland, Mich., R. 3.

WHITE WYANDOTTES Exclusively. Eggs \$4.50 per 100. Prepaid. Raymond Eash, Shipshewana, Indiana.

SILVER LACED and White Wyandotte Choice Cockerels. C. W. Browning, Portland, Mich.

EGGS from State Fair Laying Contest Winning Barred Rocks. C. D. Finkbeiner, Clinton, Mich.

WHITE MINORCAS—Single comb, hatching eggs. H. C. Shrock, Shipshewana, Ind.

BUFF ROCK EGGS—\$1.25, 15; \$7.75, 100. Peter Portinga, Three Oaks, Mich.

PURE-BRED Partridge Wyandotte Cockerels, \$3.00; eggs, \$2.50. Fred Rierson, Bronson, Mich.

68 VARIETIES fine pure-bred chickens, ducks, geese, turkeys, fowls, eggs, baby chicks. Large catalog 5c. A. A. Ziemer, Austin, Minn.

GEESSE—Ducks, leading varieties. Free Circular. John Hass, Bettendorf, Iowa.

PURE-BRED White Holland Turkeys—Hens, \$8; Toms, \$10. Mrs. Howard A. Gibson, Oxford, Mich.

HELP WANTED

FARM MANAGER for 150 acre farm between Birmingham and Pontiac. Want man and wife, no children. Women to make butter and handle chickens. Man for general farming. Write, 1209 Ford Building, Detroit.

SELL PAINT direct factory to user. Freight prepaid. Experience unnecessary; exclusive territory; no investment, big pay weekly. We deliver and collect. Write Davis Paint Co., 1721 Washington, Kansas City, Mo.

AGENTS—Big money selling indestructible pearl beads. Selling locally or by mail. Sample \$2.25. Dozen lots \$24.00. Brazier's Novelty Shop, 17161 Burt Ave., Detroit, Mich.

WE PAY \$200 monthly salary, furnish car and expenses to introduce our guaranteed poultry and stock powders. Bigler Company, X683, Springfield, Illinois.

WANTED—American girl for general house work in good home, one who likes children. Mrs. Warren, 390 Tuxedo, Detroit.

MEN wanting forest ranger and railway mail clerk positions. Write for particulars. Mokane, B28, Denver, Colo.

TEACHER wanted for summer. Healthful work. Salary \$360 for 90 days. Write Dept. A., 2011 Park Avenue, Detroit, Mich.

WANTED Middle-aged man or man and wife on farm. Simon Maichele, Middleville, Mich.

WANTED—Single man on farm. Walter Rorabacher, Plymouth, Mich.

WANTED man to help around Nursery, Edw. Lubke, New Buffalo, Mich.

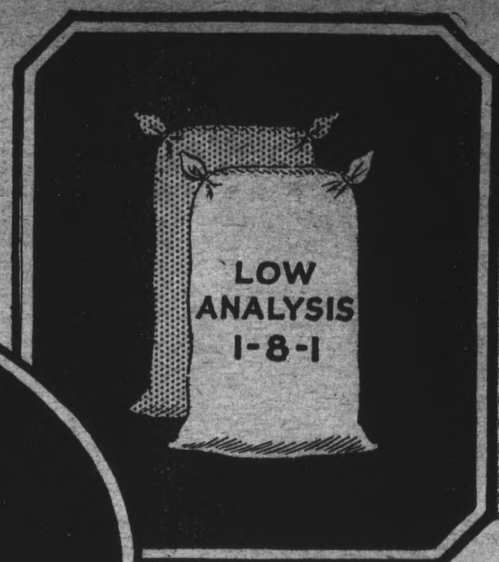
SITUATIONS WANTED

WOULD LIKE position on Stock or Dairy farm as Herdsman, reliable and steady. Held last position 4 years. C. F. Smock, 1958 Clark Ave., Detroit, Mich.

TRY a Michigan Farmer Classified Liner. They bring results.



One bag equals two
Purchase fertilizer by plant food—not by tons. One bag of 2-16-2 contains as much plant food as two bags of 1-8-1. Consider how much more plant food you can get for your money in 2-16-2



Swift's Red Steer Fertilizers of high analyses give you more plant food for your money. Your experiment station or county agent will tell you that it is plant food your crops want



It takes no more of your time to haul and handle a ton of high analysis fertilizer than a ton of low analysis. Swift's Red Steer Fertilizers of high analysis cost you less to handle

More plant food for the same money

IT costs you just the same to plow, prepare, plant and cultivate an acre of corn regardless of yield. When the yield is 80 bushels per acre, you get more for your time and money than when the yield is but 40 bushels.

It costs Swift & Company just as much for labor, bags, freight, etc., to ship a ton of fertilizer containing ten units of plant food as it does a ton containing twenty units. When you buy Swift's Red Steer Fertilizers of high analysis, you get more for your money.

It is just as easy for Swift & Company to make low analysis fertilizers as high analysis, but invariably we recommend the use of Swift's Red Steer Fertilizers of high analysis, for we know that by doing so we are giving you more plant food for every dollar invested—better satisfaction.

How to buy

Your state agricultural college, your county agent, the Authorized Swift

Agent in your town—all agree in recommending high analysis fertilizers because they know you will get more for your money.

Talk over your fertilizer requirements with the Authorized Swift Agent. He knows the analysis recommended by the state agricultural college for your crop and soil. He will gladly show you how you can get more for your money by buying these high analysis Swift's Red Steer Fertilizers.

He will tell you Swift's Red Steer Fertilizers are made from the most productive sources of plant food available. He will tell you how carefully these plant food materials are selected, processed and combined, and thoroughly cured and mixed before being shipped.

To get more plant food for the same money, to get highest quality fertilizers—plus a worth while service—see the Authorized Swift Agent in your town. If you do not locate him readily, write us and we will put you in touch with him.

Swift & Company
Fertilizer Works, Dept. 44
Hammond, Indiana

Fertilizers for Michigan

It pays to use fertilizers—high analysis fertilizers. This is the message which goes out to the farmers of the land from the agricultural colleges and experiment stations in many states—with definite recommendations, based upon years of research and experiment, as to the fertilizers which will give best results on individual soils and crops.

For Michigan, the Michigan Agricultural Experiment Station recommends the following analyses:

Corn—Sands, light sandy loams: without mixed meadow, manure or green manure, 4-12-0; with mixed meadow, clovers, alfalfa or soybeans or with manure, Acid Phosphate. Heavy sandy loams, silt loams, clay loams: Acid Phosphate. Muck: 0-12-12, 0-8-24, Potash.

Oats, Barley (with spring seeding of alfalfa or clovers)—Sands, light sandy loams: without mixed meadow, etc., 0-12-6, 4-8-6; with mixed meadow, etc., 0-14-4; with manure, Acid Phosphate. Heavy sandy loams, silt loams, clay loams: without mixed meadow, etc., 2-16-2; with mixed meadow, etc., or with manure, Acid Phosphate. Muck: 0-12-12, Potash.

Alfalfa, Clover—Sands, light sandy loams: without mixed meadow, etc., 0-12-6; with mixed meadow, etc., 0-12-6, 0-14-4; with manure, 0-14-4, Acid Phosphate. Heavy sandy loams, silt loams, clay loams: without mixed meadow, etc., or with mixed meadow, etc., 0-14-4, Acid Phosphate; with manure, Acid Phosphate. Muck: 0-12-12, Potash.

Potatoes—Sands, light sandy loams: without mixed meadow, etc., 3-12-4, 3-8-6; with mixed meadow, etc., 2-16-2, 2-12-6, Acid Phosphate; with manure, 0-14-4, Acid Phosphate. Heavy sandy loams, silt loams, clay loams: without mixed meadow, etc., 3-12-4, 3-8-6; with mixed meadow, etc., 2-16-2, 2-12-2; Acid Phosphate; with manure, 0-14-4, Acid Phosphate. Muck: 0-8-24, Potash.

Sugar Beets—Sands, light sandy loams: with mixed meadow, etc., 3-12-4, 2-12-6, 4-8-6; with manure, 0-12-6, 3-12-4. Heavy sandy loams, silt loams, clay loams: without mixed meadow, etc., 3-12-4, 2-16-2, 2-12-6; with mixed meadow, etc., 0-12-6, 2-12-6, 2-16-2; with manure, 2-16-2, 0-14-4, Acid Phosphate. Muck: 0-8-24, Potash.

As Authorized Swift Agent for the sale of Swift's Red Steer Fertilizers, we are co-operating with the Michigan Agricultural Experiment Station by handling the brands recommended above which apply to local conditions.

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



asa

Authorized Swift Agent

"IT PAYS TO USE THEM"