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1923 Corn Growing Contest

Successful Contestants Find that in Michigan the Larger Profits Lie in the Economical Production of Large Yield

By C. R. Megee

SOME very interesting practices were used in last year's corn growing contest. It is customary for the Michigan farmer to haul his manure on a sod field in the spring; he then plows, fits the land with spring-tooth drag, plants his corn and cultivates. Every one of the men who won positions in this contest did those things and more, with a single exception: one man used no manure.

Five used commercial fertilizer at rates varying from 100 pounds to 300 pounds per acre. Sixteen per cent acid phosphate was most generally used. Then Mr. Laughlin disked his clover sod with a tandem disc before plowing for corn. To get a perfect stand, he planted thick and then with a hoe thinned to about one plant every fourteen inches. Mr. Robinson and the Rossman Brothers harrowed their corn after planting, with the spike-tooth harrow. Mr. Geddes hand-hoed his corn once.

This year there will be some more things brought out which will set some

the same number of bushels as in the past and can do it on fewer acres, thereby decreasing cost of production and consequently increasing the total profits.

Mr. Laughlin, a member of the Michigan Crop Improvement Association, won this contest with Laughlin's Golden Dent corn. His corn has been winning money and ribbons at fairs and grain shows in Michigan, and also at the International Hay and Grain Show, at Chicago. Mr. Laughlin's corn has been selected for many years to give a high yield and this characteristic was an important factor in his winning the contest. No farmer in Michigan can expect to get the results obtained by Mr. Laughlin unless he, too, plants a high-yielding, adapted variety.

This contest is fostered by the Michigan Crop Improvement Association and the Farm Crops Department of the Michigan Agricultural College, for the purpose of interesting farmers in better varieties, and bringing out val-

Winners for 1923

Grower.	Yield Bush.	Value @78c.	*Cost of Growing.
Charles Laughlin, Dansville.....	83	\$64.74	\$12.10
Paul Clement, Britton.....	72.5	56.55	13.00
Milo Robinson, Union City.....	70.77	55.20	11.90
D. V. Bow, Saginaw, W. S.....	70.72	55.16	15.23
D. A. Geddes, Swan Creek.....	67.	52.26	12.92
P. A. Smith, Mulliken.....	69.	53.82	16.77
Alfred Vincent, Durand.....	64.	49.92	17.37
Rossman Bros., Lakeview.....	53.	41.34	11.92
Average Farmer, Michigan.....	34.5	26.91	** 11.00

*This includes only preparation of seed-bed, fertilizer used, seed and cultivation. The cost of cutting, husking and hauling the corn, the interest on investment in land rental, the taxes on land, and other overhead expenses must be deducted from the value per acre as well as the costs already deducted in order to determine the actual profit or loss.

**Estimated.

of us thinking that there are practices well worth doing which have been given far too little consideration. Michigan's average yield in 1923 was thirty-four and one-half bushels per acre.

This spring, the "Michigan Corn Growing Contest Club" will start its second year. They want a lot of new recruits. We would like to see a hundred men in the club this year. If you think you can grow corn, join the club and let's see how much you can make from every acre of corn you grow. Final placings are based, and awards made, on profit per acre. Undoubtedly yields can be boosted so high that the profit begins to decline, but who knows what this yield will be for Michigan farmers?

We are most interested in getting greatest profits per acre and the results last year indicate that yield per acre is one of the most important factors; yet the cost of producing that acre must receive no less careful consideration from growers. Doesn't it seem to indicate that many of us may find that by putting in less acres, but giving that acreage better care, just as many bushels of corn can be raised with more profit at the end of the season? Let's see.

The average farmer produced 34.5 bushels per acre, value being \$26.91 at a cost up to harvest of \$11. (Land rental and other overhead expenses have not been included). On five acres, he produced 172.5 bushels, value \$134.55; cost up to harvesting as figured in the chart, \$55. Mr. Laughlin grew 172.5 bushels on 2.08 acres last year. It cost him \$25.17 to grow this acreage, as against \$55 for Mr. Average Farmer; a saving of almost \$30, because Mr. Laughlin had 2.08 acres to plow, prepare and cultivate, against the average man's five acres.

The moral is plain: We can grow

uable cultural practices followed by our best corn growers.

There are no fees other than that each contestant must be a member of the Michigan Crop Improvement Association (membership, \$1.00 per year). Each contestant must enter five acres, but it may, if desired, be a five-acre field or any five contiguous acres in a larger field. Contestants also must keep accurate account of seed planted, manure and commercial fertilizer applied and time and labor spent on all operations. Otherwise, they would not know how much it cost per acre. All the contestants must be enrolled by July 1.

How is your seed corn germinating? In the corn belt they are finding their seed corn with a very low germination due to high moisture content last fall. Many Michigan farmers are finding their seed corn in poor condition this spring. You cannot afford to replant your corn in this contest; neither can you afford to wait until planting time to order seed corn if you need any, for this year's seed corn which has high germination is rapidly moving.

The Michigan Crop Improvement Association will offer this year, as last, gold medals to all growers raising 100 bushels of shelled corn per acre; silver medals to all raising eighty-five to 100 bushels per acre and bronze medals to all raising seventy-five to eighty-five bushels per acre. But notice only one man qualified for a medal. If you are a good corn grower and in need of a gold watch charm, then go after their offer. Lay your plans early and get away with a good start.

Make your application for enrollment and inquiries for further details, to your county agricultural agent, or write the Farm Crops Department, Michigan Agricultural College, East Lansing, Michigan.

Valuable news in a simple statement

There is actual news for the farmer in the statement that now "it costs no more to buy a Kelly."

For many years, Kelly-Springfield tires were sold at a higher price than the best of the "standard" tires but those who wanted the best at any price bought Kellys.

Living up to traditions, never cheapening the product to meet competition, the business grew until a great new plant—one of the world's biggest and best tire factories—was built.

In this plant the Kelly-Springfield quality has been further improved and the cost of production greatly lessened.

It is as important news to the farmer as to the city man, that he may now secure the greater mileage, the additional surefootedness, and the priceless peace of mind that Kelly tires afford, at the same price he would have to pay for an ordinary tire.

It costs no more to buy a Kelly

KELLY SPRINGFIELD TIRES

DEVOTED
TO
MICHIGAN
VOLUME CLXII

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

QUALITY
RELIABILITY
SERVICE
NUMBER SIXTEEN

Summer Boarders and Some Aint

What Is and What Aint as Broadcasted

By Harv Hess

CIDER must be hard to sell." They's a pretty good kick in that sentence, too, after you read it the second time, but it begins to look like me and you was going to have a bigger kick coming if there ain't something drastic done to relieve the cider-flooded market caused by a over production of cull apples.

Now, they's maybe half a dozen ways of preventing a cider glut. For instance, vigorous pruning of the trees with a axe about six inches from the ground is one; a less severe method would be to educate the people to drink cider for breakfast instead of coffee; or we might put our apples up in cans and label them "Sardines." But I got another idea or two up my sleeve and, if you'll just tune in to station WHIZ we'll broadcast our stuff.

All hooked up? Let's go!

A good many semesters ago, me and a lot more tillers of the soil was listening in on a speech some dairyman from Wisconsin was giving and, I remember, he comes right out and said that if any of his audience was figuring on making money in the dairy business they'd have to get rid of the boarders.

Now a boarder, as applied to that end of the game, means a cow that you're keeping instead of it's keeping you. One with a butter-fat record of zero minus when the rations and books are both balanced. They require just as much care, eat just as much alfalfa, drink just as much water as the ladies that bat 300 but, on paper, they make good dried beef and that's all.

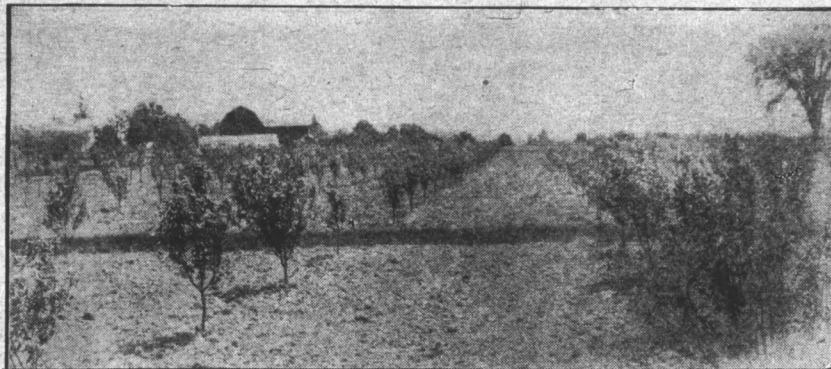
Not being a dairyman, I wasn't particularly interested in the spiel but, after I gave it the up and down, it occurred to me that that old cow puncher had the right slant on the cow industry and, the more I turned it over in my feeble mind, the more I

seen how applicable it was to most any kind of a farm, from a grapefruit vineyard to a oyster bed. Most of us boys has got boarders around our vast estates and they ain't all in stanchions, neither. Mine's in the orchard.

Me and another apple-knocker once got a hunch that we'd like to beat some poor but honest commission man on South Water Street, out of a few hundred dollars. We ought to of first tried selling German marks to the Goddess of Liberty. The possibilities is on a par. Anyways, we rented a bearing orchard. The pioneer that set it out

returns from the different kinds—not by a jug full of cider. For, out of that choice assortment of cider berries, three kinds namely, Northern Spy, Canada Red, and Wagner, brought \$4.50 per barrel, Snow \$3.50, Wolf River \$3.00, while the Duchess, Maiden Blush, Pewaukee, St. Lawrence, Russell, Pippins, etc., brought from \$1.75 to \$2.75 a barrel, and some didn't even make traveling expenses.

Every one of them apples, to my way of thinking, except the first three, was boarders. Now I don't consider those three the best combination in



The Time to Start Eliminating Cider Apples is when You Set Your Orchard. either figured on making a forest reserve out of it or else using it for a windbreak because, out of sixty trees, there was fifty-seven different varieties and his name wasn't H. J. Heinz, neither. "Variety is the spice of life" was his motto.

To each "one of the 57" we give the same treatment as to pruning, spraying and thinning. All the fruit was carefully picked, graded, packed and shipped to the same commission firm in Chicago, but we didn't get the same

the world, but they were the best babies in that collection. If I was setting out another orchard I know absoletely there wouldn't be more than three varieties and they'd be the ones that brings in the most apple jack, provided, of course, they could be grown in my locality. If the standard, desirable market kinds can't be raised where you are at, take my advice and plant bullrushes—they're more profitable.

If you was to look up the data on

all the big celebrated orchards you'd find they was all pretty scarce on varieties. One of the finest apple groves the world has ever known was located and planted by some Greek in the Garden of the Hesperides; and when old Atlas run over to pick the pie-makers for Hercules he come back with just one kind, Grimes Golden. The Garden of Eden, which is considered the model orchard, was filled with the finest kind of trees, and yet the records show only one apple, namely, Adam's. And I'll bet when Wm. Tell shot the apple off his kid's head it was a Bald one.

If a guy wants to establish a museum out in his orchard it's all right to stick in all the different kinds listed, but, at that, I'd be willing to bet that the time will come when he'll either convert it into a few nice cords of stove wood or else hire some one of our numerous grafters to change it to a profitable selling apple.

I won't begin to hint at what kinds to plant neither, for what's sauce for the goose ain't always apple sauce for the gander. One of the neighbors asked a while ago what variety I thought he ought to set out and I told him "Hyslop." He's so crabby. Then a old maid called and wanted I should recommend some first-class apple for her little home orchard and I suggested she better go pretty heavy to the Mann as the only way she'd ever pick one would be off a tree. Since then, both them parties and me has been the best of enemies.

Anybody can raise apples but a guy has to be almost a diplomat now days to sell them. Find out what your market pays highest for and don't grow nothing else but.

Station WHIZ now signing off.
Good-night.

Cooperating to Cut Farming Costs

A Plan that Will be More Generally Used in the Future

By J. T. Hörner

THE cooperative association for the purpose of supplying the farmer with the supplies which he needs in production is offering a service which tends to decrease the costs of production. A means is provided whereby the small individual farmer is permitted to secure the benefits of large scale buying, even though his purchases are small.

It is through such an organization that the buying power of a community is mobilized and made to bring a benefit to each person in the neighborhood. The main purpose of such a buying association is to provide a service to each of its members. It is not prompted by the profit incentive as is the case of the individually owned concern.

The cooperative association which is well managed provides the farmer with information concerning the market. The buyer does not necessarily have to be on his guard while making purchases. The cooperation is for the purpose of supplying the farmer with the things he needs at the lowest possible cost. There is not the incentive to make a profit on the things handled.

While the cooperative buying business has not developed to a great extent there are quite a number of them scattered throughout the United States. The annual business of such associations amounts to about one hundred million dollars. In the state of Michigan, farmers buy each year approximately two and one-half million dollars worth of goods cooperatively.

This type of business is really just in its infancy. As farmers gain more experience in this phase of cooperation, and as they begin to realize the benefits which well-managed and properly conducted organizations can bring to them, more emphasis is going to be placed on this type of cooperation. Some of the great handicaps of the past were due to lack of efficiency in management. Farmers did not have experience in business matters. Good managers who believed in cooperation could not be found. Progress has been slow. In some localities the buying and selling phases of cooperation have

been mixed up to the detriment of both. In spite of the handicaps of the past and the mistakes which farmers have made, cooperative buying is rendering a great service in many instances.

In certain parts of Michigan there are farmers' organizations which are rendering a real service to the communities in which they are operating. Good managers are in charge. Farmers have learned more about business. These organizations are operating for purposes other than mere savings which accrue from better prices. They are agencies which are working for better agriculture. More alfalfa better bulls, proper fertilizer, cow testing, elimination of the boarder cow, better schools and better communities are the objectives these organizations are striving for.

The local buying association has worked to bring advantages to the individuals of the communities by getting them to work together. Results have been accomplished and savings

made which would have been impossible by individuals working alone. Agriculture is broader than the limits of a certain community, the same as it extends across the property line of the individual farms. Communities are affected by what happens in other places. As the individual farmer has been handicapped in buying his supplies by himself, so is the individual community handicapped in buying for itself.

The efficient manager of the local organization has information about markets and materials which the average farmer does not have and can buy to a better advantage. However, the markets are so extensive that the local manager cannot secure all the information which is necessary for him to have when he is bargaining with the salesman from the supply houses.

The growth of cooperation has been viewed without pleasure by the private dealers. Large supply houses did not greatly approve of the movement. At times cooperatives were discriminated against, in some cases even to the extent of refusing to fill their orders. (Continued on page 580).

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CURRENT COMMENT

Would Cripple Parcel Post

THE farmers of the country are in danger of losing the parcel post service which has proven itself of real value since its inauguration over a decade ago. A bill known as House Bill 7016, has been introduced in congress by Representative Page, of Massachusetts, under the title, "A bill reclassifying the salaries and compensation of postmasters and other employees of the postal service, re-adjusting their salaries and compensation on an equitable basis, and for other purposes."

While this bill is presented under the cloak of doing justice by paying our splendid army of postal employees on a more equitable basis for services rendered, the real danger to the farmer comes under the provisions of the bill "for other purposes."

Included in the "other purposes" is a provision which, if it becomes law, will increase parcel post rates from 200 to 300 per cent over those now obtaining. The bulk of the parcel post business has been built up in serving the farmers in the open country. The difficulty in manning the postal service is found, not on the rural routes and small towns, but in our great cities. It would appear, therefore, that in this measure it is proposed to gain the good will of the large army of postal employees, possibly for political purposes during the coming campaign, to increase the personnel of the city post offices and to make the farmer foot the bill, while a great volume of inter-city business would be thrown over to the express companies through these increased rates.

This effrontery should be met by petitions and individual letters from our farmers to every congressman and both senators of the state, demanding that the proposed increase, or any increase in parcel post rates be defeated. It is our further opinion that a standard scale of wages to cover the whole United States would neither be just nor equitable, since living conditions vary widely in different sections of the country.

Repeating Our Mistakes

WE all make mistakes. At least, all of us who do anything. And it is not a very terrible thing to do either. All the worth-while things in the world are accomplished by people who sometimes make mistakes. If, however, our mistakes are over-balanced by the right

things we do, we are on the up-grade. The catastrophe comes when we make the same mistake twice.

During the inflation period of four and five years ago, most all of us became over-involved, money was easy to make or borrow, and we all used it and bought whatever we wanted, or thought we wanted. When the slump came, we saw our mistake, and ever since we have been depressed because of it.

We all say we will never make that mistake again; but, several million, having been unable to put up with their share of the depression, have sold out for what they could get and run off pell mell to the city after some more of that easy money. This may have seemed pretty good when their old neighbors back home were having such a hard time; but, now that these migrants are being laid off, thousands of them in every industrial city, where their scant savings will not last long, they are beginning to realize that they have made the same kind of a mistake as before, and are face to face with another bit of depression.

Those of us who have stuck to the old farm, saved and sacrificed and worked as we never have worked before, even in the face of a very discouraging outlook, are beginning to see the dawn of better times with the evil effects of our mistakes corrected and depression gradually giving way to a feeling of safety and security. We have a sort of intuitive feeling that our position on the old farm may be changed from the deplorable one that it has been, to a more enviable one among the occupations of the world's people.

Teaching The Value Of Milk

WE sat near the rear of a school auditorium craning our necks for a full hour and a half the other night in an effort to see the school children present a better health program

One of the important features of this program was a dramatized representation of the value of milk. The various elements that make milk so vital a food, and the function of each of these elements were so clearly presented that the youngest children could readily understand, while adults sat in closest attention to the end of the play.

These plays are bound to result in a larger consumption of milk, particularly among the children. Two cases in particular have come to our attention. In one case a little girl of six who had taken milk only under more or less strenuous protest, immediately upon arriving home from the above play called for a glass of milk. Another girl of the same age awoke after she had gone to sleep that night, and called for a glass of milk. Further, the parents, on leaving the school building were generally talking of the value of milk in their diet.

This is certain to have its influence upon the demand for dairy products, for this program does not happen to be an isolated piece of school work. While a few years ago the salesman and women from dairy substitute manufacturing concerns could be found lecturing to the school children on the virtues of oleo and kindred products, there is now concerted action throughout the country in holding similar educational gatherings to teach young and old of the value of dairy products in our diet.

It is more or less coincident that since the public schools have been putting on these health programs, the consumption of milk per capita for the country has increased from forty-three gallons in 1920, to fifty gallons in 1922, the last year for which we have any statistics.

This educational work is given further character by the fact that official sanction is now given the program by President Coolidge designating May first as Children's Health Day, at

which time this same idea of a larger consumption of dairy products will be especially featured.

Following Grandpa's Ways

IN the days when Grandpa was a boy they used to increase farming operations by buying more land. As soon as a little money was accumulated additions to the acreage was in order, often to the dissatisfaction of the wife and other feminine members of the household, who would have preferred additional home improvements.

Of course, these additions to the farm were made for several good reasons. The land produced good crops with comparatively little labor. The added acreage helped to keep the growing family of boys busy and once, or twice, in a while the girls, too. Also, the farmer's ambition was to leave each of his children enough land to make a good farm. This was a laudable ambition, but it did not always work because the ever increasing movement to the city made these inherited farms white elephants on the hands of the inheritors. So, in these days that practice has almost gone to the bye-byes.

This country has passed the virgin land stage of agriculture and is now in that period when land has to be kept in a good state of fertility by modern agricultural methods. Today men of scientific ability study the causes and effects of certain agricultural practices in order that your acre and mine may produce more for less in money and energy.

No, we can not farm as Grandpa did, but the sad thing is that an altogether too large percentage of the farmers still think we can. It has been found that many farmers will have nothing to do with these searchers for and teachers of new truths in farming. That many farmers can not be coaxed to do more for themselves by using better methods. They hate to break new paths, but with persistency, follow as closely as possible the footsteps of their forefathers.

Jacob Riis, a prominent sociological worker, wrote a book entitled, "How the Other Half Lives." In agriculture, we really don't see how it does.

Too Many Farmers

REFERENCE has often been made in these columns to the prevalent migration of farm people cityward. While we have depreciated the fact that conditions have made such a move advisable on the part of many people, we have gloried in the spunk of the American people who can so readily adjust themselves to conditions as they find them.

We do not attempt to forecast the effect upon those who so readily shift their scene of action from one field to another, but as we have said before, their rush to the factories and the big wages, will all the sooner bring back prosperity to those who stick to the farm.

In a recent issue, Mr. I. D. Rover expresses himself as believing this movement of farm population to the big industrial centers, to be the one thing that will help solve the present difficult farm problem. We are inclined to think he may be very close to the truth.

Another authority believes an industrial depression would not fall so hard on the farmer as upon other folks and hence would place him in a better comparative position. Prosperity at the expense of the other fellow is not permanent, however, and while misery loves company, adding depression to depression does not lend encouragement to universal content and satisfaction.

A great many people have a notion that a boom in exports should be brought about by miracle or otherwise, but along comes a statement from Secretary of Agriculture Wallace, to

the effect that during the past three years our exports of the eight principal food crops: Corn, wheat, oats, barley, rye, buckwheat, rice and potatoes, have been greater in bushels, by eighteen per cent, than during the five war years preceding, and 142 per cent greater than during the pre-war period. With animal food products, the exports have been seventy per cent of the war time shipments, and fifty-two per cent more than during the pre-war period.

During these last three years, the production of these eight food products has been greater by sixteen per cent than during the seven years preceding the war, and greater by two per cent than during the five war years. We can hardly look for satisfactory prices until production is fairly well adjusted to demand.

With these facts before us, we who remain on the farms can hardly look with much regret upon the movement of our neighbors to the cities. If a lesser production is necessary, it might better be brought about by having fewer farmers than by less efficient methods, and a consequent lower production per individual farmer.

Partee

THE other night we went parteein' to a partee which was of considerable digkneetee.

It was like this. We went to see this young married woman I was tellin' you about, to see how sorry she was about it, and likewise to see what she acquired in the transactshun.

First we had a ride in our Oughtoes fer a hour, which was a inducemunt fer goin'. Then there was some of them high school girls along, which made it a happy event fer the men of the partee.

The first number on this formul program was what the perfessor calls a musical prelude. The solo part of the music was on a horse fiddle played by Mr. Werner. The accompaniment was furnished by accomplished players of horns, rattlers and tin pans. It was soothin' musick which the neighborhood enjoyed very much.

The musick was so nice that we had solos afterwards in the house on the cornet, etc., which was nothin' to blow about. Then, too, we had duets, etc., and in a little while everybody was doin' it.

There was a exceptshun. The wives kinda naturally gravitated to a corner where they sat laughin' painfully at how foolish their husbands kin act with young girls.

Well, we found this young married woman in the house all dressed up and happy, but her husband we hada get outa the barn, where he was sweatin' with fear and excitement, which shows she is making considerable headway in managin' husbands.

Likewise, durin' the proceedin's we got them high school girls a kickin' a pan, and this young married woman kicked higher than any of the others, which shows she is gettin' good trainin' in married life. We didn't ask our wives to try this kickin' stunt, 'cause we know how they kin kick, but we didn't know them girls could, so we was interested. The decon of the church had a reserved seat durin' the performance.

Well, after the cold icy stares of our wives made the fever of the occasion subside, we et what we brought and drank some Volstead brew. Then we left the house in disorder and the young couple relieved.

There was only one single man in the crowd and he was captured by a red head. He didn't get home till four A. M., but the rest of us bein' married, we got home promptly.

HY SYCKLE.



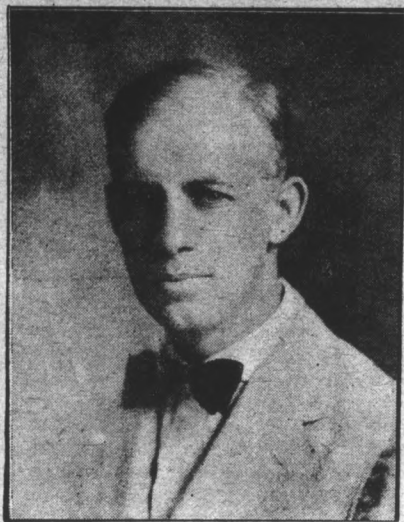
Boys' and Girls' Club Work

Some of Its Good Turns Told

By Ray A. Turner

State Leader of Boys' and Girls' Club Work

BOYS' and girls club work in Michigan has proven, during the past nine years, that the use of better practices in agriculture and in home economics can be effectively extended through the organized club; that local leadership can be trained to lead such small groups of farm boys and girls, and that the influence of club work can be spread through such means as club exhibits, stock judging contests, county tours, sales, achievement days and team demonstrations. It has been proven also, that the older farm boys



Ray A. Turner, State Club Leader.

and girls can be reached by adjusting club projects to their needs.

With the expansion of county extension programs to include club work, club work has become increasingly effective. Two other factors in improving the quality of club work in Michigan are the intensive supervision given by the county extension agents and the increased assistance given by specialists at the agricultural college.

The club projects now under way in Michigan are:

Summer Season—Corn, bean, potato, pig, calf, sheep, poultry, canning, cooking, garden.

Winter Season—Home management, clothing, handicraft, hot lunch.

At the present time, it is quite generally agreed that the main object of club work is to establish better practices in agriculture and in home-making through farm boys and girls in such a way that, at the same time, there will be developed in these young people, leadership, community responsibility and citizenship, together with a sounder understanding of farm and home life.

One of the outstanding results of this work is the development of desirable attitudes toward rural life which will be advantageous to farm boys and girls whether they remain in the country or ultimately live in the city.

Boys' and girls' club work affords opportunity for farm boys and girls in their own communities to develop responsibility. It is recognized that if farm boys and girls are to become right-minded voting members of society, opportunities in their own communities must be provided for them to develop in such work as "junior citizens" during the impressionable and formative period of their lives.

Big Men Interested.

From the earliest days of club work, a keen interest has been manifested by men of affairs, but a greater interest is now being manifested than ever before. Without a doubt the National Committee on Boys' and Girls' Club Work, with headquarters in Chicago, has been largely responsible for this.

It is believed that the acceptance by President Coolidge of honorary chairmanship of that committee constitutes an important step forward. Many farm boys and girls have looked with keen interest upon the boys' and girls' scout organizations, and the prestige and impetus given such organizations through the prominent men and women backing them. Therefore, now that club work has the support of the President and of other leading citizens, farm boys and girls may have that same sense of importance that has heretofore been felt by our city young people.

Among the many men and organizations in Michigan who are manifesting an active interest in boys' and girls' club work, are Acting-President R. S. Shaw, of M. A. C.; Mr. L. Whitney Watkins and Mr. W. B. Hartman, of the State Department of Agriculture; Mr. G. W. Dickinson, secretary-manager of the State Fair; Mr. Burt Wermuth, editor of the Michigan Farmer; Mr. W. E. Burris, president of the Michigan Association of County Fairs; Mr. George E. Bishop, manager of the Upper Peninsula Development Bureau; Mr. M. L. Noon, president of Michigan State Farm Bureau; Mr. George Otwell, of the State Department of Public Instruction; Mrs. F. B. Smith, of the State Federation of Women's Clubs; Mrs. Dora Stockman, of the State Grange; Mrs. M. H. Grosvenor, director of Detroit City Gardens, and many, many others.

Of the several organizations backing club work in Michigan, the following are representative: Michigan Crop Improvement Association, Michigan Potato Producers' Association, Michigan Potato Growers' Exchange, The Agricultural Commission of the Michigan Bankers' Association, Upper Peninsula Development Bureau, Michigan Holstein-Friesian Association, etc.

Because of the understanding and constructive way in which leaders have portrayed club work in the press, the public is recognizing this movement as a great rural, social and educational agency.

However, there is need of relating in the minds of the reading public the work done by club members with that of the extension organization at the Michigan Agricultural College. With the steady growth of "Boys' Clubs" and "Girls' Clubs" in our cities, the term "Boys' and Girls' Club Work" has become confused with such, resulting in the loss of much excellent publicity which was originally planned to call attention to the achievements of club work. One suggestion, in order to remedy this condition, seems to be that of designating this junior extension work as "4-H Club Work." This term is distinctive, arouses curiosity and interest on the part of those unfamiliar with the work and places a definite stamp upon it.

A four-leafed clover, with an "H" stamped on each leaf, is the national symbol of boys' and girls' club work.

The significance of the 4-H's is that club work trains

The Head to think, to plan, to reason;

The Hands to be useful, helpful and skillful;

(Continued on page 595).



Pig Club Member Securing His Pig to Start in Work.

Supplementing a Short Hay Crop

How a Farmer May Now Protect Himself Against Empty Mows Next Winter

By C. R. Megee

THERE are a great many one-season hay and pasture crops. But there is no single crop that is best adapted to all soils and all sections of the state.

The following table shows the comparative yield per acre of air-dried hay for several crops over a three-year period at the Agricultural Experiment Station, M. A. C., East Lansing.

Crop.	Tons.
Sudan	3.33
Golden millet	3.25
Japanese barn yard millet or billion dollar grass	3.22
Soy-beans	2.67
Hungarian millet	2.48
Common millet	1.94
Oats and vetch	1.99
Oats and peas	1.78

The above mentioned crops will not have the same relative yield in the Upper Peninsula. The following yields per acre were secured at the Upper Peninsula Experiment Station (Alger county).

Crops.	Tons.
Oats and vetch	3.56
Peas and oats	2.71
Sudan grass	1.8
Common millet	1.8
Hungarian millet	1.3
Soy-beans9

It is apparent from these yields that location influences materially the adaptability of these crops. Soy-beans should not be grown in the Upper Pe-

ninsula except for the extreme southern part, while, on the other hand, soy-beans are exceptionally well adapted to the southern part of the Lower Peninsula where corn is grown for grain.

Oats and peas, and oats and vetch gave exceptionally high yields in the Upper Peninsula, quite good yields in the northern part of the Lower Peninsula, and were only fair in the southern part of the Lower Peninsula.

The feeding value of these short season hay crops also vary widely when grown in different parts of the state. Also, roughages low in protein and suitable for wintering horses, are frequently not at all suitable for milk production. Millets, Sudan grass and corn stover are low in protein, while soy-beans are very high in protein and high quality soy-bean hay is equal in feeding value to alfalfa and clover hay. Oats and pea, and oats and vetch hays are much higher in protein than millet, Sudan grass and corn stover, but are not as high in protein as soy-bean hay and clover hay.

Time of Sowing.

Short season hay crops may be divided into two general groups, according to the time of sowing as spring-

sown and summer-sown crops. Crops such as oats, peas and vetch should be sown during the early spring. If sown late, hot, dry summer weather will stunt the growth and the yield will be disappointing. These crops are usually ready to harvest during mid-summer, at a time when weather conditions are most favorable for hay making.

Summer-sown Crops.

Millets do best during warm weather so should be sown about the first of June and are ready to harvest in from sixty to seventy days after sowing, which is usually at a time when the weather is good for hay making. Millet should be cut for hay when the seed is in late milk or early dough stage. Mature millet seed is sometimes injurious to live stock, especially horses. For best results millet hay should be fed with some other roughage.

Sudan grass should be sown during late May or early June and is from ten days to two weeks longer in maturity than millet. It has about the same feeding value as timothy hay and is a little coarser than millet hay. There

is usually considerable second-growth which may be used for pasture or plowing under, and under quite favorable conditions this growth may become large enough to make a second crop of hay. Sudan grass usually produces a higher yield, is a safer feed and is not so hard on the land as millet.

Soy-beans should be planted during the last half of May or early June. They are ready to make into hay during early September. This is probably the greatest disadvantage in growing soy-beans, since September is frequently unfavorable haying weather. However, the acreage is increasing and many farmers think the advantages outweigh the disadvantages. Soy-beans are a legume and very high in protein and consequently very desirable as a milk producer. The hay is palatable and well liked by all kinds of live stock. Being a legume they have the ability to make use of the free nitrogen of the air and consequently leave the land in much better shape than millets and Sudan grass.

Those desiring further information concerning short season hay crops, should write the Service Department of the Michigan Farmer, or Farm Crops Department, M. A. C., East Lansing, Michigan.



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cement-service man

He has, through cooperation with us, a 104-page Cement Construction Handbook, freely illustrated. Also helpful Bulletins and Service Sheets on more than a score of home, yard, farm and business-place cement improvements.

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CEMENT

LATE AGRICULTURAL NEWS

WOULD CRIPPLE PARCEL POST SERVICE.

UNLESS those who represent the farmers and rural people generally get busy shortly it is probable that they will have to pay largely increased parcels post rates—rates so high that the service will be greatly curtailed.

Congress is preparing to increase salaries of post office employees, and will provide the money by raising the parcels post and fourth-class postage rates. In two bills now before congress, it is proposed to increase the parcel post rate for the first zone from five to fifteen cents a pound and for other zones proportionately.

Speaking of this proposed increase, Gray Silver, Washington representative of the farm bureau, says that it "catches the farmer both going and coming, for he has to pay postage on what he receives and as a producer he has to pay postage on what he ships, his prices not being set by himself but by the quotations on his market. When the parcels post was inaugurated in 1913 it was recognized that it would be a benefit primarily to the farmers and to those living in small towns. No one will challenge the statement that the service has lived up to expectations."

ASKS FOR WORLD'S POULTRY CONGRESS.

PRESIDENT COOLIDGE has requested congress to pass a joint resolution authorizing him to extend an invitation for the holding of the third World's Poultry Congress in the United States in 1927, and to extend invitations to foreign governments to participate in this congress. Friends of this movement say that if invitations are secured to make this congress possible, it will be necessary to have a great volume of support from the poultry interests.

HOUSE PASSES BILL TO ESTABLISH DAIRY BUREAU.

THE bill to establish a dairy bureau in the department of agriculture passed the house by unanimous vote. Congressman Blanton, of Texas, who assumes the role of watchdog of the house, said that if this bill had been for the creation for any other interest except agriculture he would have objected to it, because we ought to stop creating these bureaus. "This bureau is going to require another \$7,500 chief and all the incidental expenses, but as it is for the farmers I shall let it go by."

ASKS AID OF BANKS.

EVIDENTLY despairing of hope that congress will do anything in the immediate future for the relief of the farmers, President Coolidge has again turned to the banking interests in an appeal that they extend emergency aid to the northwestern spring wheat growers, who, according to the volume of their complaints, are worse hit than the farmers of any other part of the country.

M McNARY-HAUGEN BILL AWAKENS MORE INTEREST.

THE McNary-Haugen bill is the center of interest in proposed agricultural legislation. It now has in its support the Federal Department of Agriculture, and three or four of the larger national farm organizations.

These organizations contend that: "As a nation we have writhed at tales of deportation of vanquished peoples under the impulse of a conquering country. Shall we passively assent to deportation of vast number of American farmers under pressure of slow, economic torture, because one organ-

ized group fears selfishly, and another professes to a academic, economic orthodoxy rather than to humanity? This is a plain story, unaccompanied by threat or flourish. Only this: National unity and national safety depend upon protection of all classes without discrimination. If the agricultural one-third is now throttled, all others must eventually realize the loss."

Two powerful groups are opposing the McNary-Haugen bill. One is headed by Julius Barnes, president of the United States Chamber of Commerce. The other consists of practical economists who declare that the proposals it contains are economically unsound.

The economists, the men who base their conclusions upon its probable workability from a constitutional and economic standpoint, have much better grounds for opposing the McNary-Haugen bill than those upon which Mr. Barnes is standing. Congressman Edward Voigt, of Wisconsin, is the leader of this group of opponents to the measure. Congressman Voigt is a clear thinker who has the ability to analyze a bill and separate its good and bad points. He does not believe it will work to the satisfaction of any one. In fact, he regards it as political bunk, the consideration of which is delaying the enactment of genuine relief legislation, and if it should pass the courts will shortly declare it unconstitutional and then congress will have adjourned.

DESIGNATES FOREST PROTECTION WEEK.

THE week of April 21-27 has been designated by President Coolidge as Forest Protection Week. In his proclamation all citizens are urged "either in association or as individuals, all schools, and the press, to give common thought to the protection of our forests from fire, to the end that, in the future as in the past, these forests may supply us with wood, protect the purity of our streams and serve the people of the United States."

Secretary Wallace has stated that eight out of every ten forest fires result from the carelessness of human beings, and will not happen once the public is brought face to face with the serious losses these fires cause. These losses fall especially heavy on the American public since the United States uses more saw timber than all other nations combined. There are about 36,000 forest fires a year, sweeping 11,000,000 acres of land.

STATISTICS ON TAX-EXEMPT SECURITIES.

THERE has been much disputing and misunderstanding in regard to the amount of tax-exempt securities in this country. Claims have been made by certain would-be authorities that wealthy tax dodgers were holding anywhere from \$18,000,000,000 to \$32,000,000,000 of such securities. A recent estimate made public by the treasury department, shows that on February 29, there was a total of \$15,107,000,000 in tax-exempt securities. Of this amount \$2,586,000,000 was held in the treasury or in sinking funds, leaving only \$12,521,000,000 as the whole amount that could possibly be held by so-called tax dodgers.

It may be interesting to note that \$1,310,000,000 are securities of the federal land banks, intermediate credit banks and joint stock land banks, compared with \$11,378,000,000 in securities of states, counties and cities.

A comprehensive idea of the increase in these tax-exempt securities is had from the fact that the total amount of tax-exempt securities on December 31, 1912, was \$5,554,000,000; on December 31, 1922, it was \$13,552,000,000, and on December 31, 1923, it was \$14,835,000,000.

\$24.95 Sent On TRIAL
Upward
AMERICAN
CREAM
SEPARATOR

A SOLID PROPOSITION to send well made, perfect, skimming separator for \$24.95. Skims warm or cold milk. Makes heavy or light cream. Different from picture, which shows large capacity, easy running New L.S. Model. See our easy Monthly Payment Plan. Bowls sanitary, marvelously cleaned. Whether dairy is large or small, write for free catalog and monthly payment plan. Western orders from Western points.

AMERICAN SEPARATOR CO.
Box 3061
Bainbridge, N. Y.

Send No Money
Sent FREE
30 Days' Free Trial
No deposits—No notes to sign—No obligation to buy! You try the famous imported dairy separator entirely at my risk. You alone are the judge and if not thoroughly satisfied return it at my expense.

THE HARP
A SIZE FOR EVERY DAIRY
Fully Guaranteed
DUTY FREE
10 MONTHS TO PAY

W. C. MULLER, Pres.
THE HARP SEPARATOR CO.
Dept. 310, 115 S. Dearborn St., Chicago

HIGH POWER LESS GAS PERMANENT POWER NO GRINDING
EVERFIT VALVES
MAKE FORD CARS BEAT SIXES
PERFORMANCE AND ENDURANCE GUARANTEED
CHARLES SILK & SON, Distributors
138 Woodward Avenue DETROIT, MICHIGAN

MICHIGAN FARMER
Classified Liners bring results. They cost little.

MORE CASH to MILKING FARMERS

CONSUMER RETAILER
OTHER CREAMERY SYSTEMS
BROKERS SPECULATORS COMMISSION MEN ETC.
CREAMERY CREAM STATION
BLUE VALLEY

Write Today for Cash cream prices and shipping tags, or ship a trial can of cream at once to the nearest Blue Valley Creamery. For 24 years Blue Valley has given thousands of farmers a high direct market price for their cream. We guarantee to satisfy you.

Our Check to You is our only agent to urge you to ship again. That is why we must satisfy you every time.

Another Blue Valley Booster
"Your service has been all that I could ask for in our dealings." Wm. H. Chapple, Conklin, Mich.

Thousands of B.V. B's (Blue Valley Boosters) will tell you to ship your cream yourself direct to Blue Valley.

For Bigger Cream Checks
Write for shipping tags and prices, or Ship to

BLUE VALLEY CREAMERY CO.
Ship to Blue Valley Creamery in City nearest you
Detroit, Mich. Grand Rapids, Mich. Milwaukee, Wis. Duluth, Minn. Also creameries in 17 other cities. General Office: CHICAGO

BLUE VALLEY BUTTER is good butter
that's why millions use it

ARO TRACTOR
The only small tractor that will pull a riding sulky plow with 10 or 12-inch bottom. One user writes: "The ARO will do as much plowing as any team with a walking plow." An all round power plant. Easy to handle, turns in 3-1-2 feet, power reverse—operator rides.

Write for descriptive literature and prices
ARO Tractor Co., Minneapolis, Minn.
Ray E. McHugh, State Dist.
640 E. Michigan Ave., Lansing, Mich.

4-8 H.P.

The Seal of
Quality and
Service



Let's Bring the Buyers to Michigan

There is no doubt of their eagerness to come or of the splendid prices they are ready to pay for Fine Pelts.

The Elack Fox Magazine for January says editorially:

During December, particularly the latter part, the Charlottetown newspapers were full of advertisements soliciting furs. Numerous buyers from the United States visited the province, including representatives from the big fur houses of Alfred Eisenback, Jaekel & Sons and Roy Pines, of New York, and several buyers from Quebec, while the consignment houses of Frederick Huth & Co., C. M. Lampson & Co. and the Canadian Fur Auction were actively soliciting consignments for their auctions.

Mr. Geo. B. Herzig, of New York, well known to Silver Fox breeders, particularly since the National Live Fox Exhibition at Milwaukee, where he was one of the judges, spent two weeks with Mr. W. Chester S. McLure buying Silver Fox skins. Mr. McLure's office on those days would certainly cure any pessimist or anyone who doubts the possibilities of Silver Fox farming. It was positively thronged with Fox farmers carrying large and small bundles of Silver Fox Furs. And in the two weeks it was estimated that over \$270,000 was paid out in cold cash. This included the purchases in Summerside, P. E. I.

It is estimated that the industry will bring into the province this year a total of \$1,500,000, of which over a million will be for skins. As the agricultural products had to be sold this year at a comparatively low level, the activity in the Silver Fox market has been a distinct boon to the island.

Detroit Silver Fox Farms

1515 First National Bank Bldg., Detroit, Mich.

600 Foxes---300 Pens

Pontiac, Mich.

Ranches

Winnipeg, Man.

ATTENTION!

Farmers--Breeder--Bankers We Need More Foxes

*Only Pontiac Strain will Produce
Pontiac Strain*

THE demand for Pontiac Strain Silvers—has already passed away beyond our producing capacity!

This year's Sales of Pontiac Strain Foxes will exceed our production—by **Several Hundred Pairs**.

Then—what of next Season!

Remember the demand is growing! ..

We must have more Pontiac Strain—Production units—at once!

Our Plan and Organization—eliminates all Risk! We operate upon a positive—safe and proven plan—that is bound to make—such men as we select—to operate Pontiac Strain Production Units— () Thousand Dollars per year—we left the number blank—purposely because our proposition is such that you can fill this in yourself—for the number of thousands you make—depends wholly upon your qualification for producing Pontiac Quality Foxes.

However—we will not be satisfied with anyone—who themselves would be satisfied with less than Ten Thousand Dollars profit—annually after the first year.

Only men—or groups of men of rigid honesty—respected and honored by their fellowmen—for the success which they have already achieved will be considered.

You will find upon investigation—that the men behind the Pontiac Strain Institution—meet the above requirements themselves—and want to associate themselves only with such men as will reflect credit upon the Silver Fox industry—as a whole.

So here you have an unusual opportunity for Service—you know—"Helping the other fellow to help himself will bring you all you want."

We know that the Farmers and Breeders of Michigan can make Millions of Dollars every year—in fur production—and so this institution is investing thousands upon thousands of dollars—in advertising and in laying the foundation to the result that—

Pontiac Strain Foxes—And the Pontiac Plan
Means Millions of Furs—Brought into Michigan.

From March 29 Issue of *Forbes* we Clipped the Following:

"Most men have convictions---Some have courage--but the names of those who have both illuminate the pages of history".---O. Byron Cooper.

We have a firm conviction upon the wonderful future in Store for Fur Farming—and have demonstrated this conviction with the courage to put nearly a quarter of a million dollars—into fur farming to back up our conviction.

We are making history in the Fur Industry!

We need more Pontiac Strain Foxes!

Do you want to produce them?

Then—get in touch with us at once—either write or come to our office in Detroit for particulars.

Let's make Michigan the fur producing center of the World! Natural conditions favor us!

Fill Out---Tear Out---and Mail

DETROIT SILVER FOX FARMS,
1515 First National Bank Bldg.,
Detroit, Mich., M. 2.

Gentlemen: I would like to know more about the Silver Fox Industry and the Pontiac Plan for new Producing Units.

Name

Address

City

There is a Vast Difference in Shingles

Since H. M. Reynolds made the first asphalt shingle over twenty three years ago, many different shingles have appeared on the market, each one claiming certain points of superiority over the others.

But throughout this time, Reynolds Shingles have been made to the same high standard, and this in spite of the temptation to lower the quality to meet a price.

Ask your lumber dealer—he knows, and can give you the benefit of his experience. You can't afford to experiment.

H. M. Reynolds Shingle Company

"Originator of the Asphalt Shingle"

Grand Rapids,

Michigan.



Handling the Milk

A LARGE number of replies to this question of taking the milk from the barns to the highway showed two general methods—one using a cable and the other a cart or wheelbarrow. By far the larger number of men who replied made use of two-wheeled carts.

The over-head, or cable, method requires a supporting post or other structures at the barn or milk house

the milk stand. This plan is expensive but there is little or no trouble from mud or snow.

One party in describing his level wheelbarrow stated, "This wheelbarrow has a level platform instead of the usual slanting one, is about five feet long and three feet wide. It will carry three cans of milk. In winter we substitute a runner for the wheel. This equipment works very satisfactorily."

Buggy wheels, cultivator wheels, sulky plow wheels, and many other kinds of wheels were mentioned in the making of a great variety of two-wheeled carts. Here is the description of a typical one:

"Take two old front buggy wheels with the axle. Have the axle bent at points two inches from each skein to the depth of ten inches, which will give twenty-five and one-half inches width on axle for box. The size of box is thirty-eight inches long, twenty-four and one-half inches wide, and seven and one-half inches deep—outside measurements. Bolt this box to the axle on bottom and both sides, placing the axle fourteen inches from the front of the box so as to give the proper balance. Use two pieces of "L" shaped strap iron for legs. Make one arm of the "L" sixteen inches long and the other six inches. Bolt the long arm to the rear end of the box with the short arm pointing to the rear. For handles bolt two old plow handles on sides of the box; or, one can use a heavy iron rod bent to fasten to the sides of the box. This box will hold three ten-gallon cans and one five-gallon can, and can be pushed with ease. Outside of the material I furnished, the cart cost me \$1.75."

The letters awarded the prizes were written by the following: Roy L. Henderson, S. McDonald, Jr., Robert Asch, Henry L. Bills and Homer H. Downing.

A Chance for All

WE are going to send five prizes of one dollar each to the five persons sending the best letters to the Handy Man, Michigan Farmer, Detroit, telling what was done to make their homes more attractive.

One sees many very attractive farmsteads, not necessarily expensive ones, as he travels to and fro over the state. Hundreds of these homes have been made so by a little cleaning up, grading, planting, painting, etc. We are simply asking that you tell us in a short letter what you have done to make your home appeal to you and to those who pass your gate. Mail this answer on or before April 23.

and another at the milk stand, a cable sufficiently strong and long to reach over this distance and carry the quantity of milk produced at a milking, a car to run on this cable, and a platform swing. The cable is stretched taut from post to post, the car, with the platform suspended, is then placed on the cable. The milk is loaded onto the suspended platform and rolled to

Follow Natural Laws

That is the Remedy Suggested by this Good Michigan Farmer

THE following letter from Jack Brown a progressive farmer who breeds Holsteins and raises good seed potatoes at Central Lake, is not far out of line with the thought of many who have made a sincere effort to think through the maze of influences and factors now moulding the fate of the farmer:

During these years of agricultural depression, the farmer has had much time and food for thought.

A good many plans and not a few of which, might better be called schemes, have been formulated with the idea of bringing a more prosperous agriculture and probably some of these have originated on the farm.

It is true that a great many farmers and others are looking to Washington for aid or for a cure-all for agriculture. But what, when we get down to "cases" can a government do in the way of establishing immediate prosperity?

Of course our Co-operative Marketing laws will help but at most are no more than allowing the farmers to help himself.

The McNary-Haugen Bill if it were put into action, could hardly help starting another "Vicious Circle."

We have had some, and not altogether pleasant, experience with governmental control of industries in which the principal difficulty seems to be the ease with which other peoples' money can be spent.

Any or all of these bills would probably give some temporary relief but

at the end of a year or two would we not very likely be right back where we started from, possibly in a worse hole than we find ourselves in now.

Would it not be better to let the situation re-adjust itself?

Facing the facts of an overproduction in most lines of farming and an undersupply of manufacturing labor, at least in some lines, the situation does not seem too complicated for natural laws to remedy.

The pendulum will, of course, swing back eventually of its own accord. However, it seems that due to after-war effects, this process is taking much longer than it should under normal conditions of the "ups and downs" of agriculture and it seems to be occurring to an increasing number of people both on and off the farm that it might be hastened to some extent by a further restriction of emigration, perhaps closing our ports entirely for a few years.

And certainly we have enough land under cultivation for the present without reclaiming any more.

On natural law that seems to work whether Congress does or not is "The Survival of the Fittest."

Quoting from E. Davenport, "No fixing of prices, no system of Subsidies, no expansion of currency or credit, no governmental paternalism will insure success on the farm to any man who cannot or will not put into the business at least a fair share of ability on the one hand or else imitate (Continued on page 576).



EN-AR-CO—Auto Game FREE!
THE NATIONAL REFINING CO., 104-D3 National Building, CLEVELAND, OHIO
Send En-ar-co Auto Game FREE. I have never received an En-ar-co Game. (Write your name and address plainly—preferably printed.)

My name is..... St. or R. F. D. No.....
Postoffice..... County..... State.....

KEEPING THE HIRED MAN BUSY.

LABOR for the farm is higher than it was a year ago. This is a conclusion reached by the bureau of economics in a recent survey, and is very definitely understood by every farmer who has been anxious to negotiate with some person for services this coming summer.

High-priced labor urges efficiency—working with the minimum of lost motion, or with little waste of materials, or producing maximum outputs.

Unrepaired harnesses, broken whiffletrees, lack of clevises, chains, tools, implements out of order, no conveniences in barn nor house, no gates, poor fences, and a multitude of other things that are not as they should be, make it very hard for the farmer to get the results from his own, as well as his hired man's labor that he should.

The logical thing to do is to put these matters in shape for the very good reason that it will save time when they are needed. I shall not employ a hired man to fool around at unproductive work when it is impossible to keep him and myself busy at things that have a bearing on making profits.

—R. Riglay.



"Nick" Kessler, land-clearing expert, and L. J. Carter, county agent of Arenac, taking a few deep breaths before sending an innocent stump to eternity.

RETURNS BEYOND EXPECTATION.

THE advertising campaign carried on in the agricultural papers by the Federal Land Banks has opened up a new field for the sale of Farm Loan bonds. The returns from this advertising is not only gratifying to the banks but surprising, according to Judge Lobdell, fiscal agent of the twelve Land Banks.

Many farmers are not only writing in for information, but are actually buying Farm Loan bonds of denominations all the way from \$40 up to \$2,000. Farmers appreciate the value of bonds of the Farm Loan system as an investment in which they can place implicit confidence.

This advertising is also having the effect of calling the farmers' attention to the wisdom of purchasing guaranteed bonds, insuring a safe, sure return, instead of buying "the blue sky stuff" and purely speculative securities of unknown value.

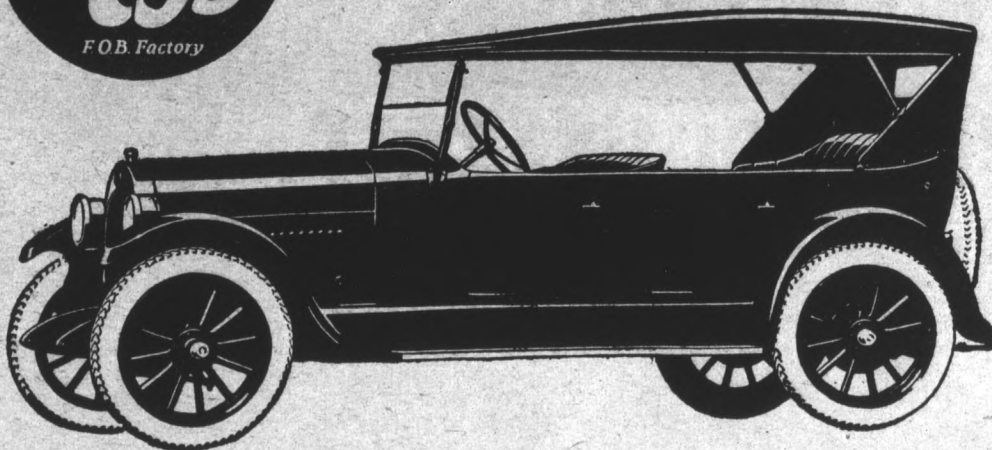
EASTERN FARM CONDITIONS.

IN the East heavy freezes last month did some damage to clover meadows, winter wheat and peaches. In the Corn Belt winter wheat was somewhat damaged by freezing. Much poor seed corn is showing up in tests. The heavy run of hogs continues. The general opinion is that there will be fewer hogs on farms a year hence.

Better April showers than the breadth of the ocean in gold—Proverbs of Ireland.

SIX
at \$795
F.O.B. Factory

**You expect it
to cost more**



40 H. P. six cylinder engine
Baked enamel body finish
Delco ignition
Borg & Beck clutch
Harrison radiator
Alemite lubrication
110" wheelbase with 86 1/4" spring length
Weight 2300 lbs.
Oversize cord tires

When people first see this Oldsmobile Six, they invariably assume its price to be anywhere from \$200 to \$300 higher than it really is.

That is why this car is in such great demand. Its very apparent extra value offers too great a buying opportunity to be overlooked.

Oldsmobile Six, with its very complete equipment, its fine performance qualities and its fine appearance would be impossible at anywhere near the price, were it not for the pronounced manufacturing advantages resulting from the close cooperation of Oldsmobile and General Motors.

Examine this car at the nearest dealer's. Accept a demonstration. This demonstration, coupled with a most careful and detailed inspection, will reveal to you that Oldsmobile Six value is the kind of value that provides enduring owner satisfaction.

OLDS MOTOR WORKS, LANSING, MICHIGAN
Olds Motor Works of Canada, Ltd., Oshawa, Ont.

Roadster \$785 Sport Touring \$915 Cab \$985 Coupe \$1075 Sedan \$1135

The G.M.A.C. extended payment plan makes buying easy. All prices f.o.b. Lansing. Spare tire and tax extra. Genuine Oldsmobile parts can be purchased from any Oldsmobile dealer in any part of the United States, at a standard price established by the factory, without addition of war tax, handling, or transportation charges. Every Oldsmobile dealer has a master parts price list issued by factory, which is always open for owners' inspection.

**OLDSMOBILE
SIX**
PRODUCT OF GENERAL MOTORS

**The World's Best
Work Rubber!**

The "Caboose"

Sold by
Dealers
Every-
where

Here is the longest wearing work rubber ever made—the famous "Caboose." Designed by Converse. Often imitated but never equalled for comfort and service. Easy to put on. Fits perfectly. Hugs the ankle tight and high. Double ply uppers and extra thick White Tire Sole welded together by special "pressure cure" into one piece. Amazingly serviceable. Try on a pair today!

BIG "C" LINE

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TENANT'S SHARE OF WHEAT.

A rents B's farm. B furnishes tools, implements, horses, seed, chickens, cows, except two which A takes one half of everything in fall and moves off the farm to another which he has rented. Now previous to his moving off A, when asked to do so by B, puts in a field of wheat on B's farm (as he was still living on the farm of B's.) Can A collect his share of that wheat this harvest? He did no other fall work on B's farm.

Whether A should get a share of the wheat or not depends on the provisions in the lease. However, the general practice is that the tenant receive a share of the crops, like wheat, that he plants.—R.

CARE OF GRANDPARENT.

Grandmother cares for granddaughter from age of six months. After girl marries furnishes home for her, doing the housework, cooking, sewing, washing and attending to their children. When she is no longer useful, they say they have done their duty and that her children must care for her. Old lady has small house in city, but repairs and taxes take rent. She went to B's; changed her will to leave granddaughter \$100, daughter \$100.00, two sons each \$100.00 and balance to son B (after debts are paid.) Could property be arranged so that one taking care of her could get \$200 per year for her care, and how? Would B's paying \$200 (from her property) be legal under law ordering all children financially able to pay, to support parents? Is B obliged to care for her? What steps would be necessary to destroy the will? Would B have right to destroy will? Would he have to pay funeral expenses?—A. B.

The maker of a will may destroy it at any time. Destruction by anyone else otherwise than as the testator's agent would be illegal. If the lady is still mentally competent she may contract for her keep, to be paid out of her estate or before, and it will be valid. The statutory liability of children to support their indigent parents is merely as a protection to the public against their becoming a public charge as paupers, and can be invoked only by the poor commissioners according to the provisions of the statute. The liability is purely a statutory one.—Rood.

SEEDING SWEET CLOVER WITH OATS.

Your issue of March 22 gave a lot of good information about the growing of sweet clover. There is one or two questions I would like to ask. When seeding in oats in spring, how should it be sown, should it be broadcasted with seeder like June clover, or how? After it is cut, is it cured in the same way June clover is?—K. D. K.

When sweet clover is to be seeded with oats, a very satisfactory method is to seed the sweet clover with the grass seed attachment of the grain drill, allowing the sweet clover seed to be broadcasted just in front of or on to the disks. The sweet clover seed should not pass down the grain tubes with the oats, since this will cover the sweet clover seed too deeply.

In case the oats are broadcasted, the sweet clover may also be broadcasted and covered with a spike-tooth harrow.

Sweet clover should be seeded on a well-firmed seed-bed and covered from one-half to three-fourths of an inch deep as a general rule.

Sweet clover should be cut for hay just as the blossom buds appear; if it is allowed to come into bloom, the stems become coarse and woody and the leaves drop off.

Sweet clover contains a higher percentage of moisture than June clover and is a little more difficult to cure. The curing is much the same as June clover except that it requires a little more time. In some sections farmers secure good results by harvesting the sweet clover with the grain binder

when it is intended for hay. The bundles are made quite small and are set up in small shocks to cure.—C. R. Megee.

PAY FOR PLOWING.

We had a tenant on our farm for two years. He made a bargain last fall to work it the coming year, and did some fall plowing. Then he rented another place, saying nothing to us until he had been gone two or three weeks. Then he wrote saying that if we got some one else on the place it would be all right with him, and all he wanted was pay for the plowing. Can he collect for the plowing, and can he hold the place? There has been no writing since the first year.—F. H.

The tenant is entitled to hold the place till his term expires, or till he surrenders or violates some provision of the lease for which a forfeiture could be maintained. He could not recover for the plowing if he surrenders the lease. Apparently he made an offer to surrender on certain terms, but they have not been accepted and he has not surrendered unconditionally.

PEAS AND OATS FOR HAY.

My husband would like to know what kind of peas should be sown and how many per acre to cut for feed.—Mrs. J. C.

A mixture of peas and oats is frequently used for hay and also as a crop to cut green and be fed during mid-summer.

Would recommend a mixture of one bushel of oats and one bushel of peas sown at the rate of two and one-half bushels per acre.

The French June variety, frequently sold by seed companies under the name of Canadian Field, is quite satisfactory for forage purposes. For the best results, peas should be sown as early in the spring as the seed-bed can be prepared.—C. R. Megee.

FOLLOW NATURAL LAWS.

(Continued from page 574).

his successful neighbors as closely as possible on the other."

That being true, and it undoubtedly is, doesn't it seem a bit out of place to go on encouraging those farmers, who, for one reason or another, cannot make a success of their business.

After all would they not be better off, more contented, their families have a better living, a brighter outlook on the world and the world be a little better all around if they were in some other line of work that would at least return a decent living and a fair share of recreation.

The agricultural "unfit" have been and are now flocking to the city. Without our usual influx of emigrants to swell the industrial ranks, the prospects for the farmer going to the city to work would be a little more alluring and it hadn't ought to take very long for a re-adjustment to come about.

I find more and more of this sentiment among farmers, that, while we are not perhaps as "hard up" as the wheat farmer, can at least lay claim to being a part of an unprosperous agriculture.

Would it not be better policy to encourage this trend of events rather than discourage it, to help the misfit find a better niche rather than subsidize or pay him to stay in the rut.

Every one admits that prosperity must be more evenly distributed and how better distribute than in letting the misfit farmer join the ranks of labor where labor is needed and thereby reduce the over production of farm crops.

It will happen eventually, shouldn't we give the pendulum a push.

More Oats on Fewer Acres

By L. W. Silverthorn

BECAUSE oats are no longer grown as a cash crop, we have not neglected them. Rather, we have studied and followed methods that have resulted, in most cases, in an increase in their yield per acre. This is not done with a desire to fill more bins with oats, but to fill the same number of bins on fewer acres; thus leaving the acres saved at the disposal of cash crops.

Though the value of oats has decreased on the market their place in the different feed rations on the farm has not been impaired. With the present low selling value of oats the only way in which they can be profitably grown for the market is by the few added bushels per acre.

There are some farms where the use of fertilizers with oats has proven profitable, and others where the increased yield failed to pay the additional cost. A light top-dressing of manure worked into the ground gives, in most cases, an increased yield sufficient to pay the additional cost of labor and time, and leaves a profit.

Watch the plowing. Although one has plowed for years there always

so closely that it was occasionally necessary for it to stop and wait on the other machinery; and this has been done when the weather was moist. Such practices have resulted in exceptionally low yields. Experience has taught that sufficient time should be given between each operation to permit the sun to warm the ground and allow the air to circulate through it. The sun and air, if properly utilized, will do much to increase the yield of the oat crop, and they do not cost a penny.

Carefully cleaned and graded seed is used at the rate of two bushels per acre. Seed taken from a bin which had heated slightly after threshing resulted in a light stand and a low yield; it would have been more profitable to have purchased the seed in this case. Sowing when the ground is dry enough for a little dust to fly has always proven satisfactory.

Rolling the ground after seeding has been practiced with both good and bad results. The writer has watched the results, not only on our own farms, but on other farms as well. The results that can be expected depends



Even Though You May Have Plowed for Years There Are Constantly New Angles to the Job that Need Thoughtful Attention.

seems to be places for improvement in this work; one might, on the next occasion, plow a little better than before, leaving fewer pockets in the furrows and plow at a depth best suited to soil conditions. Usually we plow just deep enough to turn up the sod that was plowed under the previous spring.

The ground is harrowed lightly the first time over so that as few lumps as possible are dug up. Lumpy ground does not hold the moisture. All the teeth of the harrows should be working. If a tooth works loose, the harrows should be stopped and the tooth adjusted to its proper place before work is resumed.

If one is to get an even stand of grain and the maximum yield, each cubic foot of ground must be thoroughly worked. The spring-tooth harrows are splendid for working the ground; they stir the soil thoroughly, mixing the bottom earth with the top, leaving it where the sun can warm it and the air can circulate through it. A shallow seed-bed, worked at an even depth, with plenty of fresh, loose earth to cover the grain, suits oats the best. To get this we always harrow the fall plowing three times, setting the harrows deeper for the second and third time over the field. Harrowing the fourth time showed no increase in the yield and is rarely necessary.

Discing for oats saves time where one has plenty of horse power or a tractor; otherwise plowing is more satisfactory. Discing conserves moisture and often results in an increase of from one to three bushels per acre. One mistake often made is the incessant haste in getting the crop in. Where plenty of power and help is available the discs are too often followed immediately with the harrows and then another set of harrows and these followed closely by the drill. In some instances the drill has followed

largely on weather conditions. Under favorable conditions this practice has proven profitable, and vice versa. In a dry season no bad results are likely to be experienced from this practice. As the ground should be quite dry before rolling, it is best not to roll too soon after drilling. If the top of the ground is moist when it is rolled a crust is likely to form and crack, allowing needed moisture to escape. This depends, of course, on the weight of the roller used; the heavier the roller the more care should be exercised in the condition of the land. In the cases which we have had opportunity to study, culti-packers were used.

HE LIKES SOYS.

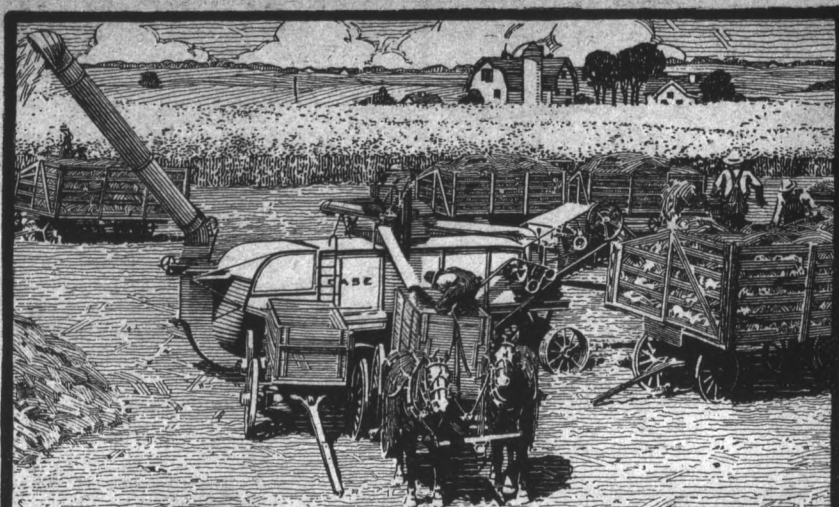
IN a recent issue of the Michigan Farmer I notice that a subscriber asks if soy-beans are good for hay. I wish that more farmers knew the value of soy-beans for hay and dairy feed. I have been raising them very successfully for the past four years and I cannot say enough in their praise.

They are easy to raise and harvest and produce well. I am now feeding some soy hay that is as bright and green as any alfalfa, and is relished just as well by the stock. Any farmer that is going to be short of hay this coming year should put in from three to five acres of soys.—E. A., Livingston County.

TRESPASS.

My neighbor throws stones across the line fence. I want to stop this and make him take them away. What shall I do?—D. G.

Each act is an actionable trespass. Injunction may also be had to prevent threatened acts and multiplicity of suits.—Rood.



Twenty Years After

Up to twenty years ago wood construction prevailed in farm machines, including threshers. But wooden threshers, even the best, would warp and pull out of shape when exposed to the weather and drive belt strains.

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is substantially made from steel and heavy gauge galvanized iron, and is most attractively finished. It holds one-half pint of seed—enough for any ordinary planting. It's easy to operate—no mechanism to break or get out of order. 4 spacing and measuring cylinders for various sized seeds and 15 feet of the best No. 1 chalk line are included with each planter.

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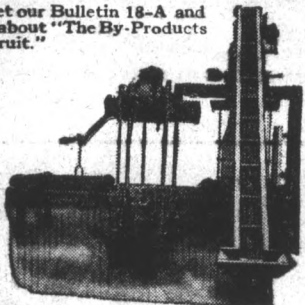
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Standardizing Varieties

Means Better Vegetable Markets

By G. V. Branch

Director Detroit Municipal Markets

DOUTLESS growers who use Detroit Farmers' Markets lose thousands of dollars every year and cause dissatisfaction among many of the buyers by their failure to plant the best market varieties. One only has to see the awful assortment of muskmelons that comes to the markets and hear the remarks of disgusted purchasers in order to believe the above statement. Poor quality, ungraded products that are displayed by growers on the market depress prices and drive away customers.

The potato situation, too, needs special attention. A lot of pretty poor stuff comes in to the farmers' markets and every bushel of it hurts the grower and the market too.

In a letter to this bureau, Mr. H. C. Moore, of the Michigan Agricultural College, recommends especially for the Detroit area that the White Rural (which includes the Rural New Yorker No. 2, Sir Walter Raleigh, and Carmen No. 3), be planted for the fall and winter market by those who want a round white potato. Where the Russet Rural (Late Petoskey) is used it should be put only on the lighter sandy loam soils and planted early. Heavy, dark soils and late planting produce dark, unattractive potatoes.

For early potatoes during July and August he recommends the Irish Cobbler to be planted early on a fertile, loamy soil. With proper seed, good soil, and thorough spraying, growers should get from 100 to 200 bushels to the acre.

See your county agent for sources of certified seed, or write the Michigan Potato Growers' Exchange at Cadillac, Michigan. It pays to grow certified seed. Tests last year show that certified seed produced sixty-three bushels more of marketable potatoes than common seed.

Visitors from all over the country tell us that Detroit is giving its local market gardeners the best farmers' markets provided by any local city. Let's fill those markets with the best farm produce grown anywhere. It will pay you to help.

Let's unite in an honest effort to raise the standard of produce offered on the markets by taking a simple and sensible step—plant only the best varieties that have been proven superior by test. Below you will find a list of such varieties recommended by the Horticultural Department of the Michigan Agricultural College and other competent authorities.

Those marked with the asterisk (*) are recommended as being the best for the Detroit market.

Asparagus—*Washington.

Bean—dwarf wax flat—*Golden Wax (Old Type), New Kidney Wax, *Sure Crop Wax, Webber Wax.

Bean—dwarf wax round—*Pencil Pod Black Wax, Round Pod Kidney Wax.

Bean—dwarf green flat—Bountiful. Bean—dwarf green round—*Stringless Green Pod, Stringless Refugee, Full Measure.

Bean—shell—French's Horticultural, *Dwarf Horticultural, Hampden Pole, *Harlequin.

Bean—lima—Fordhook, Burpee Improved (Dwarf).

Beet—Corshy Egyptian, Detroit Dark Red.

Cabbage—extra early—*Copenhagen Market, Jersey Wakefield.

Cabbage—mid-season—Mid-season Market, Allhead Early, Early Summer.

Cabbage—late—Danish Ball Head, Danish Round Head, Volga.

Cauliflower—Early Snowball, Extra Early Dwarf, Erfurt.

Carrot—Scarlet Horn, *Chantenay, Danvers.

Celery—Easy Blanching, *Golden Self-Blanching, Giant Pascal.

Corn—extra early—Alpha, *Golden Bantam, *Charlevoix, Mammoth White Cob Cory.

Corn—mid-season—*Howling Mob, Bantam Evergreen.

Corn—late—*Stowell's Evergreen, Country Gentleman.

Cucumbers—*Davis Perfect (W. Spine), Earliest of All (W. Spine), Early Fortune (W. Spine), *Boston Pickling, Improved Long Green.

Egg Plant—*Black Beauty, *New York Improved.

Lettuce—heading varieties—*Big Boston, New York, *May King, Salomander, *Unrivalled, Hanson.

Lettuce—non-heading—*Grand Rapids, *Black Seed Simpson.

Muskmelon—Emerald Gem, Extra Early Knight, *Extra Early Osage, *Hearts of Gold, *Bender.

Onion—*Prizetaker Southport Yellow Globe, Southport Red Globe, Southport White Globe, *Globe Danvers.

Parsnip—*Hollow Crown.

Pea—extra early dwarf—Long Pod, *Hundredfold, Laxtonian, Peter Pan, Pioneer.

Pea—extra early medium-size pod—*Rice's Early Dwarf, Sutton's Excelsior.

Pea—extra early Small Pod—*Little Marvel, Notts Excelsior.

Pea—early, not dwarf—World Record, Gradus, *Thomas Laxton.

Pea—main crop—*Sutton's Perfection, Alderman, Telephone, *Duke of Albany, Prince Edward.

Pepper—*Crimson Giant, *Large Bell, Neapolitan, *Harris Earliest.

Radish—round and turnip shape—*Scarlet Globe, Early Scarlet Turnip, White Tip, *Crimson Giant, Long Standing, Philadelphia White Box.

Radish—early, long—*Cincinnati Market (Red), *Icicle (White).

Radish—summer—Chartier, White Strassburg.

Radish—winter—*Half Long Black, Spanish, Celestial.

Spinach—Triumph, *Victoria, *King of Denmark, Bloomsdale.

Squash—Mammoth White, *Giant Summer Crookneck, Bush Scallop, *Italian Veg. Marrow, *True Hubbard, Delicious.

Tomato—extra early—June Pink, *Earliana, *Bonny Best, *John Baer.

Tomato—main crop—*Early Detroit, Livingston's Globe, Stone.

Turnip—Extra Early Purple, Top Milan, *Purple Top White Globe, Early White Milan, Purple Top Strap Leaf, Snowball, White Egg, Golden Ball.

Rutabaga—Purple Top, *Improved American.

AGREE ON STANDARDIZATION OF CONTAINERS.

WHILE not always acting in harmony, departments of agriculture are of one mind in the campaign for a reduction in varieties and sizes of fruit and vegetable containers. The standardization program has been endorsed, according to H. A. Spilman, of the Bureau of Agricultural Economics, by the National League of Commission Merchants, International Apple Shippers' Association, Western Fruit Jobbers' Association, Vegetable Growers' Association of America, and several state horticultural and hamper manufacturers' associations. It is believed that fewer standard containers will be beneficial to producers, dealers, transportation companies and consumers alike, and tend to prevent fraud in merchandising fruits and vegetables.

Thoroughness in spraying is just as necessary as the spraying formula you use.



You can get more days of profitable work out of this sprayer than from any other tool on the place. You won't neglect that important job of spraying, whitewashing or disinfecting, when you can do it so quickly, easily and effectively with a

SMITH BANNER
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COMPRESSED AIR SPRAYER

For spraying against insects and fungus on fruit trees, potatoes, cotton, vegetables, gardens, shrubs, berries, grapes, flowers, sprays whitewash, paint, Carbola and disinfectants in poultry houses, stables, barns, washes windows, autos and buggies.

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Ask your hardware or implement dealer—you will be surprised at the low price; to avoid disappointment refuse substitutes; insist on the genuine Smith Banner—if he cannot supply you write us for catalog and prices.

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NEWS FROM CLOVERLAND

WIN STATE HONORS.

IN awarding honors for boys' and girls' club work in Michigan, five Houghton county boys and girls are on the list. Ruth Manninen, a pupil in the John A. Doelle Agricultural School, Portage township, won first place in first year poultry club work. Toini Mantta won third place in the second-year poultry project. Esther Niva, of Pelkie, too third in garden club work. Odell Peterson, of Houghton, was second in handicraft. Lila Orpila, of Paynesville, Ontonagon county, had third place in first-year cooking club work.

DOING REAL CLUB WORK.

MR. A. G. KETTUNEN, assistant state leader of boys' and girls' club work, has recently made public the honor list of boys and girls for the entire peninsula. It shows the high state of progress that has been reached in club work in this section under Mr. Kettunen's direction.

Sophie Cheraeski, of Manistique, became state champion in first-year canning work, while Vivian Pellitier, of Luce county, took second place in first-year canning work. Evelyn Hansen, of Powers, Menominee county, was the state champion in fifth-year canning work. Miss Hansen has won first place during the past four years for canning work in Menominee county, and also won a free trip to the live stock show at Chicago last fall. Ellen Anderson, of Chatham, took second place in first-year cooking.

Joseph Drake, of Mansfield, Iron county, was state champion in potato club work. Elmer Anderson, of Manistique, took second for the state. State poultry champion was Ruth Manninen, of the John A. Doelle School, Houghton county. Lawrence Bemrick, of Manistique, took second place in the second-year poultry club work. Arnie Hakala took first place in the third-year poultry project.

In the state garden contest, Alice M. Tikkanen, of Ironwood, was state champion; Lawrence Erickson, of Ironwood, took second place; Esther Niva, of Pelkie, took second place in second-year dairy heifer club work. Andrew Waite, of Iron county, for the third year took first place in dairy calf club work.

Danville Sandstrom, of Perkins, Delta county, took first place in first-year handicraft project. Malcolm Johnston, of West Ishpeming, took second here. Douglas Tippet, of Marquette county, took first place in the second-year handicraft project; Odell Peterson, of Houghton, was second here. Howard Logan, of Perkins, was first in fourth-year handicraft project. Verne Ward, of McMillan, was second.

The Upper Peninsula is credited with eleven first place positions out of a possible thirty-six state awards, last year. A free scholarship at the Michigan Agricultural College goes with the winning of first honors. In view of the Upper Peninsula's relative standing in population to the rest of the state, it is clear that club work is getting real results north of the Straits.

WOULD CAN BLUEBERRIES.

IT is reported from Escanaba that there is a high probability that a large fruit packing concern will establish a blueberry canning factory in that city. If this is done, it is considered likely that northern Michigan blueberries will compete successfully with Maine fruit in the Chicago, Detroit and St. Louis markets. It is believed that Michigan has a superior berry and the freights are shorter.

There is abundant raw material growing wild here.

Some time ago the Upper Peninsula Development Bureau sent the late Dr. A. W. Deadman, of Marquette, on a still hunt through the Maine blueberry section to study methods of handling the crop and marketing it after canned. Dr. Deadman was most enthusiastic over the possibilities in this industry for northern Michigan, after having got a close-up view of the industry in the east. He found that blueberry lands were virtually off the market in Maine.

At Escanaba, it is stated, that other small fruits will be canned later, if the present project materializes. Incidentally, farmers in the garden district east of Escanaba, which is a region of great potential productivity with poor market facilities, are interested in the project at Escanaba and are expressing a desire that a receiving station be located in their territory as a market for local fruits which now either go out by water or not at all.

WANT TRUCK DRIVERS TO EXERCISE CAUTION.

CHIPPEWA county is insisting that truck drivers observe the state law requiring trucks to be loaded to one-half capacity during the period of the spring break-up, as a protection to its country roads. It is estimated that the county will be saved at least \$10,000 if this rule is observed.

FAVOR DAIRY PROGRAM.

THE Chippewa county board of supervisors has gone on record as favoring dairying as the major farm industry of the county and thus has approved the program of Mr. D. L. McMillan, newly installed county agricultural agent.

RECENT AGRICULTURAL APPOINTMENTS.

MR. ARTHUR E. HAGEN has been appointed club leader in Iron county, it is announced. He is a graduate of the University of Wisconsin. Mr. John Bush and Mr. George A. Newett, of Ishpeming, have been appointed by the United States Secretary of Agriculture as members of the advisory council of the Great Lakes Forest Experiment Station. Mr. E. C. Colby has been appointed by the State Department of Agriculture to supervise the bovine tuberculosis eradication campaign in this territory. He will be associated with Dr. F. K. Hansen, assistant state veterinarian. Mr. J. G. Wells, newly appointed dairy specialist of the Michigan Agricultural College, assigned to this territory, is now on the job.

LADY HAS HIGH HERD.

MRS. A. ERICKSON, of Iron River, Iron county, owns a herd of dairy cows which out-distanced all the dairy herds in the Upper Peninsula during February, where official tests have been conducted. Mrs. Erickson also has the highest producing cow of all herds in the district. Mrs. Erickson's herd of nine Guernseys produced an average of 720.3 pounds of milk and 35.7 pounds of butter-fat at a cost for feed of \$9.18 per cow for the month.

Failure to treat oats for smut the last few years has cost New York growers at least 3½ bushels an acre.

Too early pasturing may mean short pasturing. Give the grass a chance to become firm.

Save Labor on your farm— Get this Handbook



THE average American farm is undersized because it contains much land that cannot be profitably cultivated. Yet by the aid of dynamite, practically all this "loafer" land can be planted, and made to yield a handsome profit on the investment. And even land already under cultivation can be improved.

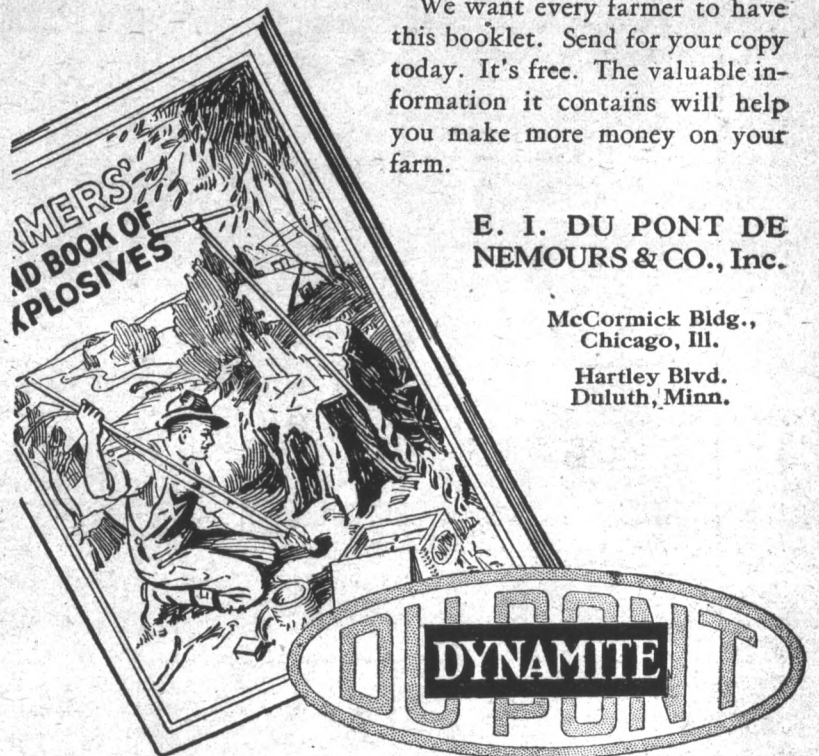
For the benefit of American farmers, we have issued a 110-page booklet called Farmers' Handbook of Explosives. It explains, in simple language, how to get the best and quickest results with du Pont dynamite in clearing land of stumps and boulders, draining wet land, planting trees, increasing the fertility of the soil, and all other ways of using explosives on the farm.

We want every farmer to have this booklet. Send for your copy today. It's free. The valuable information it contains will help you make more money on your farm.

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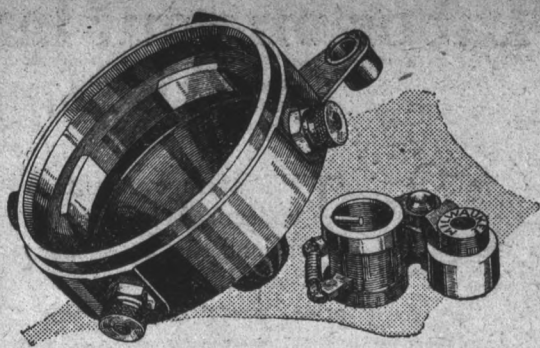
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Yet the price has not been raised! The new Milwaukee Timer is dollars cheaper than any other ignition unit with a Bakelite case.

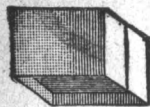
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MILWAUKEE TIMER for FORDS

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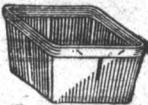
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FACTS FOR FARMERS.

Things Our Readers Want to Know

For ridding vegetable plants and shrubbery of insects, spray them with a solution of one can of Red Seal Lye to fifteen gallons of water. Results are quick and effective. Do not spray while plants are in blossom.

There is nothing like Red Seal Lye for cleaning all greasy surfaces. It combines with the grease, forming a soap that washes away grease, lye and dirt and leaving a spotlessly clean surface.

Disagreeable cleaning jobs, such as toilets, drains, sinks, out-houses, etc., are robbed of their offensiveness when Red Seal Lye is used. It instantly destroys all unpleasant odors and kills germs.

Co-ops Cut Farming Costs

(Continued from page 569)

ders. The credit which the locals had was in most instances rather restricted and they were not enabled to make the best bargains. To overcome these difficulties under which the local co-operatives are laboring it will be necessary to have a federation of some sort which will look after the wholesale buying for larger groups. In England the consumers' cooperative organizations soon discovered that if they were to bring any great benefits to their members they must have a cooperative wholesale society to do for the locals what locals are doing for the individuals.

While the well managed cooperative buying association can render valuable service to the community it will never be able to greatly excel the service of the privately owned supply store until it is affiliated with other locals into a wholesale buying association. In order for the local to secure the best bargains it must have a buyer who knows markets and goods. This type of ability is expensive and it is almost impossible to secure within the salary limit of the local. The quantity of business which each local has does not justify the hiring of this high-class buying ability. A man able to buy on the best terms for a local can well handle the business of many locals.

Farmers are not able to buy their productive supplies on the best basis. They are buying at retail and selling their finished product at wholesale. The properly managed cooperative buying association will permit them to overcome this disadvantage if it is federated with other locals. At present most locals are not buying in the best

possible manner. They do not have the buying power in the market. They are not getting the advantages of wholesale buying to the extent which is possible. Many of the locals are buying now at jobbing prices instead of wholesale prices. The well-managed central buying organization with the loyal support of local associations which in turn have the business of each of the individual members can mobilize buying power capable of effecting a real reduction in price.

In the state of Michigan, farmers spend somewhere in the neighborhood of five million dollars for fertilizer, and twenty-five millions for feed yearly. The business of seeds, spray materials, oils, gasoline, salt, fence, coal and other supplies added to that of feeds and fertilizers, would permit a central buying organization to become a factor in the buying market which would return real benefits to farmers. In addition to the benefits of reduced prices such a service, being conducted on the basis of service instead of profit, would assure the farmer quality goods. Quality, especially in the case of seeds, is a factor which is of great importance.

The results obtained by the Michigan state farm bureau seed department is an example of what can be done by a properly organized and well-managed central buying association. A central buying agency which could bring the same service and efficiency in the purchase of other farmer supplies would be of great benefit to farmers and would assist quite materially in removing the handicaps under which they are now buying.

Mining Marl

How They Do It Over in Muskegon County

THE use of lime is probably the first step toward the building up of Michigan's sandy soils. It is indeed providential that the lime which has been leaching for centuries from these soils is usually found stored nearby in swamps or lakes in the form of marl. Making this lime available and putting it back on the soils which so greatly need it, is not a spectacular task, but it is a movement which means much for the future of farming in this state.

An interesting combination soil meeting and marl excavating demonstration was held on the farm of R. A. Hornung, in Cedar Creek township, Muskegon county.

Prof. George M. Grantham, of the M. A. C. Soils Department, was the principal speaker at the meeting in the afternoon. He listed the ten plant food elements necessary to plant growth and named four of these, nitrogen, phosphorus, potash, and calcium (lime) as being the ones usually deficient in the soils. Methods of supplying these elements in the most economical way possible, were outlined.

For the lighter sandy soils, Professor Grantham recommended the application of lime first, this to be followed by a seeding of alfalfa or sweet clover. Alfalfa was recommended if the farmer felt that cash returns must be secured within a short time. Sweet clover was described as a crop supplying as much nitrogen as alfalfa and considerable more humus. It was recommended that the sweet clover be plowed under in July of its second year. This will put the soil in condition for cash crops.

Professor Grantham described how the nearby marl deposits had been leached from the surrounding soils and had accumulated in the lakes. The prime need is now to put this lime back on the farming lands. The different forms of lime and their comparative values were discussed.

Following the meeting a demonstra-

tion of marl digging was given. Dr. Hornung has set up, on the shores of Duck Lake, a cable-way outfit purchased recently from an engineering company. A fifty-foot gin pole is set up on high ground about 300 feet from the water's edge. From the top of this pole a seven-eighths-inch track cable extends about 800 feet to an anchorage on the opposite shore of an arm of the lake. This arrangement permits digging marl from the bottom of the lake or from the deposits near the shore. A four-cylinder, thirty-eight horsepower engine with a two-drum, chain-driven hoist forms a satisfactory power unit.

Barring a few unavoidable delays, the outfit worked very smoothly and delighted the crowd with its satisfactory performance. It proved very interesting to see the bucket speed swiftly down the cable and out to the lake, dig in for its load, and then come up the track cable with its load of marl. About one-third of a cubic yard of marl is secured with one bucketful and this is dumped with a splash to the pile beneath. Although the outfit had just been assembled and started working, quite a quantity of marl is already available.

Dr. Hornung, who is by profession an extractor of molars, has turned his attention to marl extraction principally to be of service to his neighbor farmers. His price of \$1.00 per yard represents a very small margin above the cost of excavating and his action in making available a large source of lime is indeed invaluable for the surrounding farming sections.

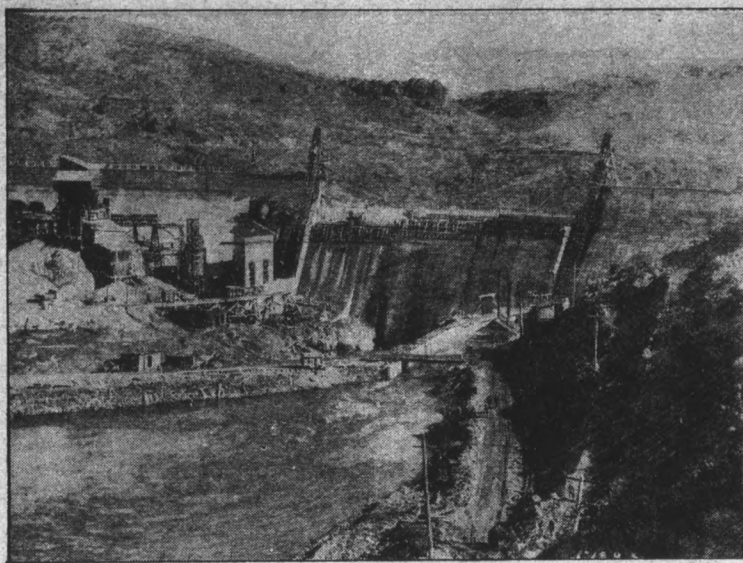
A way to kill chicks: give them moldy feed.

For lack of running water in the kitchen a Virginia woman walked, in a year, 140 miles and expended enough energy in lifting water to do the work of two horses in plowing 11 acres.

WORLD EVENTS IN PICTURES



Ex-Justice Curtis Dewight Wilber, of San Francisco, has been sworn in as Secretary of Navy.



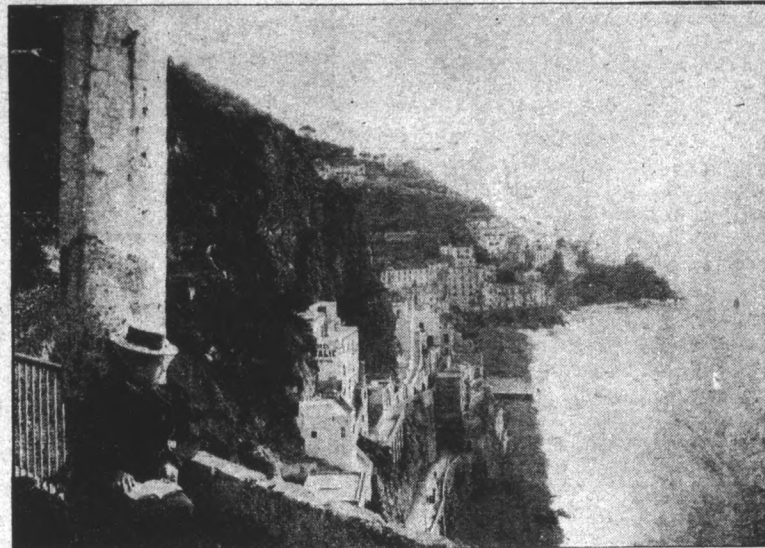
The Black Canyon dam on the Payette River, between Nampa and McCall, Idaho, when completed will add millions of acres of irrigated lands to the state of Idaho.



Abe Goldstein, new world's champion bantam weight, defeated Joe Lynch in a fifteen round bout.



"America's sweetheart" and "ma" Pickford (Mrs. Smith—Mary's mother) recently visited the house at 211 University Avenue in Toronto, Ontario, which was Mary's birthplace.



A landslide recently swept the famous seaport of Amalfi, Italy, killing one hundred people and rendering thousands homeless. Seven villages were affected by the slide.



Dr. Abdul Ruhman Shahbander and his wife, of Syria are touring the U. S. in interest of Oriental problems.



Harry Sinclair, of St. Clair oil company, refused to testify before the Senate Oil Committee.



Charlotte McQuada of Bronx, N. Y., has received a medal for saving seven persons from drowning when a motor boat exploded.



"Cushey Job" winner of the annual Waterloo cup, the classic of greyhound coursing events in Britain, is receiving the blue ribbon for his high honors.



Senator Samuel M. Ralston, of Indiana, former governor of that state and Senator Royal S. Copeland, of New York, are reported to be probable Democratic presidential candidates.

AND as he watched her, Houston new that he loved her, that he wanted her above all things. In spite of what she had been led to believe of him, in spite of everything. His hands extended, as though to reach toward her,—the aching appeal of a lonely, harassed man, striving for a thing he could not touch. Then hope surged in his heart.

If the woman back there in the west country only would tell! If she would only keep the promise which she had given him in her half-delirium! It meant the world to Barry Houston now,—something far greater even than the success for which he had struggled; she could tell so much!

For Houston felt that Agnes Pierdon knew the details of practically every conspiracy that had been fashioned against him; the substitution of the lease and contract in the pile of technical papers which he had signed, the false story which she had told to Medaine,—suddenly Barry wondered if she really had passed the scene of his struggle with Tom Langdon, if she had seen anything at all; if her whole testimony had not been a manufactured thing, built merely for the purpose of obtaining his utmost confidence. If she only would tell! If she only would stay by her promise to a man who had kept his promise to her! If—

But a call had come up the line. The whistles no longer were tooting; instead, they were blowing with long forlorn blasts, an eerie sound in the cold, crisp night,—a sound of foreboding, of danger. A dim figure made its appearance, running along the box cars, at last to sight Houston and come toward him.

"Which car does the engine crews sleep in?" came sharply.

Houston shook his head.

"I don't know. Has something gone wrong?"

"Plenty. Both the firemen on Number Six have went out from gas—in the snowshed. We've picked up a guy out of an ice gang that's willin' to stand th' gaff, but we need another one. Guess there ain't nothing to do but wake up one of th' day crew. Hate t' do it, though—they're all in."

"Don't, then. I'll make a try at it."

"Know anything about firin' an engine?"

"I know enough to shovel coal—and I've got a strong pair of shoulders."

"Come on, then."

Houston followed the figure toward the snowshed on the hill. Ten minutes later he stood beside a great Mallet engine, a sleek, glistening grayhound of the mountains, taking from the superintendent the instructions that would enable him to assist, at least, in the propulsion of the motive power. At the narrow areaway between the track and the high wall of the straight-away drifts through which the plow had cut, four men, were lifting a limp figure, to carry it to the cars. The superintendent growled.

"You payin' attention to me—or that guy they're cartin' off? When you get in them gas pockets, stick your nose in the hollow of your elbow and keep it there 'till you've got your breath

again. There ain't no fresh air in that there shed; the minute these engines get inside and start throwin' on the juice, it fills up with smoke. That's what gets you. Hold your nose in your arm while you take your breath. Then, if you've got to shovel, keep your mouth and your lungs shut. Got me?"

"Yes, sir."

"Then go to it. Hey, Andy!"

"Yeh." A voice had come from the engine cab.

"Here's a guy that'll swing a shovel. I've told him about the gas."

Barry climbed to his place on the

Faster—faster—then the impact, like crashing into a stone wall. They were within the snowshed now, the auger boring and tearing and snarling like some savage, vengeful thing against the solid mass of frigidty which faced it. Inch by inch for eight feet it progressed; the offal of the big blades flying past in the glare of the headlights like swirling rainbows; then progress ceased, while the plow ahead, answered by the engines which backed it, shrilled the triple signal to back up, out into the air again, that the ice crews might hurry to their tasks. The engineer opened the cab window and gratefully sucked in the

until the electric lights were nothing more than faint pinpoints, sending the faces of the men to their arms, while the two crouched, waiting anxiously until the signal should come from ahead.

A long, long moment, while the smoke cut deeper into protesting lungs, in spite of every effort to evade it, while Old Andy on the engine seat twisted and writhed with the agony of fading breath, at last to reel from his position and stumble about in the throes of suffocation. At last, from ahead, came the welcome signal, the three long-drawn-out blasts, and the engineer waved an arm.

"Pull that rope!" he gasped toward the first fireman. "For God's sake, pull that rope! I'm about gone."

A fumbling hand reached up and missed; the light was nearly gone now, in a swirling cloud of venomous smoke. Again the old engineer stumbled, and Houston, leaping to his side, supported him.

"Find that rope—"

"I can't see! The smoke—"

Desperately Houston released the engineer and climbed upward, groping. Something touched his hand, and he jerked at it. A blast sounded—repeated twice more. In the rear the signal was answered. Out ground the train to freedom again. It was the beginning of a night of an Arctic hell.

Back and forth—back and forth—fresh air and foul air—gleaming lights, then dense blackness—so the hours passed. Sally after sally the snowplow made, only to withdraw to give way to the pick crews, and they in turn, gasping and reeling, hurried out for the attack of the plow again. Men fell grovelling, only to be dragged into the open air and resuscitated, then sent once more into the cruelty of the fight. The hours dragged by like stricken things. Then—with dawn—the plow churned with lesser impact. It surged forward. Gray light broke through at the end of the tunnel. The grip of at least one snowshed was broken; but there remained twenty more—and the Death Trail—beyond!

"That's the baby I'm afraid of!" Old Andy was talking as they went toward the cars, the relief day crew passing them on the way. "We can whip these sheds. But that there Death Trail—there's a million tons of snow above it! Once that there vibration loosens it up—we'd better not be underneath it."

Houston did not answer. The clutch of forty-eight hours of wakeful activity was upon him. The words of Old Andy were only so much of a meaningless jumble to him. Into the car he stumbled, a doddering, red-eyed thing, to drink his coffee as the rest drank it, to shamle to the stove, forgetful of the steaming, rancid air, then like some tired beast, sink to the floor in exhausted, dreamless sleep.

Hours he remained there, while the day crew carried the fight on upward, through three of the smaller snowsheds, at last to halt at the long, curved affair which shielded the jutting edge of Mount Taluchen. Then Houston stirred; some one had caught him

(Continued on page 587).

The White Desert

By Courtney Ryley Cooper

A GARDEN CHAPEL

Author Wallace Peach

She seeks her garden in the hush of day,
In those still hours when western hill crests burn,
When wings have sought the nest, and far away
To mountain haunts the restless winds return.

Serene she walks each hushed and fragrant aisle
As if it were a quiet path of prayer,
And pauses now and then with tender smile
To touch the face of some shy flower there.

In that grave pacing slow I know she leaves
Her world that has so much of care and pain
Until through gates that close on all that grieves
She comes to peace in some untrodden fane.

Returning to the ways she knows so well,
She seems like one who in a secret place
Has heard a voice of love ineffable
Speak words of healing and eternal grace!

engine. A whistle sounded, to be echoed and re-echoed by the answering blasts of the snowplow train—four engines sally into the shed. Headlights, extinguished momentarily, were thrown on again, lighting up the dirty, ragged edges of the snow walls, with their black marks of engine soot; throwing into sharp relief the smudge-faced figures of the pick-and-axe crews just emerging from the black maw of the tunnel; playing upon the smooth, white outlines of the forbidding mountains yet beyond, mountains which still must be conquered ere the top of the world was reached. Ahead came the "high-ball" signal from the plow; two sharp blasts, to be repeated by the first, the second, the third and fourth of the engines. Then, throttles open, fire boxes throwing their red, spluttering-glare against the black sky as firemen leaped to their task, the great mass of machinery moved forward.

fresh, clean air.

"Eight feet—that's all," he mused. "Eight feet at a time." Then, noticing Houston's attention, he went on: "It's all the big screw can make. Got a hood on the front, you know, protecting the blades. It's eight feet from the front of that hood to the first trucks. When it's scooped that out, it's the finish. The wheels hit ice, and it's either back out or get derailed. So we back. Huh! There she goes again. Keep your nose in your elbow, youngster, this time. We're goin' back pretty sudden. We'll get gas."

The screaming of the whistles faded, giving way to the lurching of steel monsters as they once more crawled within the blackness of the smoke-filled, snow-choked shed. Deeper they went and deeper, the shouts from without fading away, the hot, penetrating sulphur smoke seeping in even through the closed cab, blackening it

AL CRES--Slim Says The Chickens Should Fit The Corn

By Frank R. Leet





Above is shown
Gold-Seal Congoleum
Rug No. 323. In the
9 x 10½-foot size it
costs only \$15.75

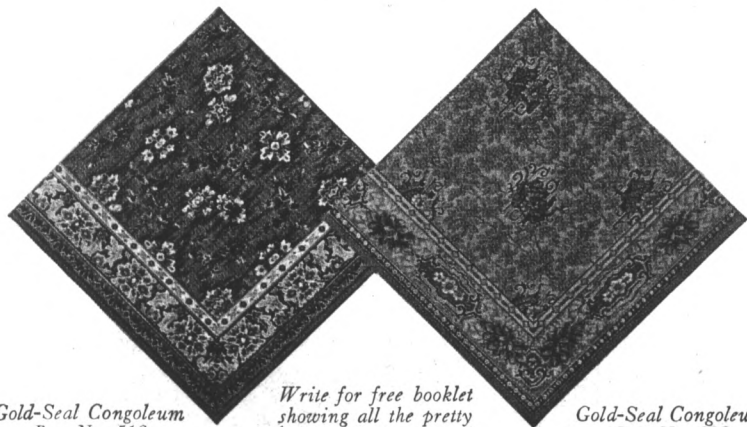


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Rug No. 398

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That's why *Gold Seal* Congoleum Rugs are taking the place of woven floor-coverings in so many homes; in living room, dining room and bedrooms all through the house.

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Congoleum Rugs offer the same artistic designs you find in high-priced woven rugs, and in such variety that it is a simple matter to make selections to harmonize with every room in the house.

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6 feet x 9 feet	\$ 9.00	The patterns illustrated are made in the five large sizes only. The smaller rugs are made in other designs to harmonize with them.	1½ feet x 3 feet	\$.60
7½ feet x 9 feet	11.25		3 feet x 3 feet	1.40
9 feet x 9 feet	13.50		3 feet x 4½ feet	1.95
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An authority of note gives these three vital reasons for orange juice in baby feeding:

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Orange juice is rich in Vitamine C. Therefore, orange juice with milk which has the growth-promoting vitamins in abundance, makes a complete and perfect food for the baby or young child.
2. Organic salts and acids
—elements that every baby needs;
3. Fruit Sugar
—practically predigested nutriment promoting healthful muscular activity in children.

THE vitamine in oranges prevents certain common forms of malnutrition, the most serious of which is scurvy.

The salts and acids act as appetizers and aid digestion.

The fruit sugar is a healthful, easily digested form of sweets that most children require.

And not the least of all advantages that orange juice affords is its natural, mild laxative effect.

Orange juice, therefore, is almost universal food for babies today, for other reasons than merely that children like its taste.

No other baby food or fruit juice, so far as we know, combines these healthful benefits with such

enticing flavor. No other, therefore, is so easy and so pleasing to administer to children.

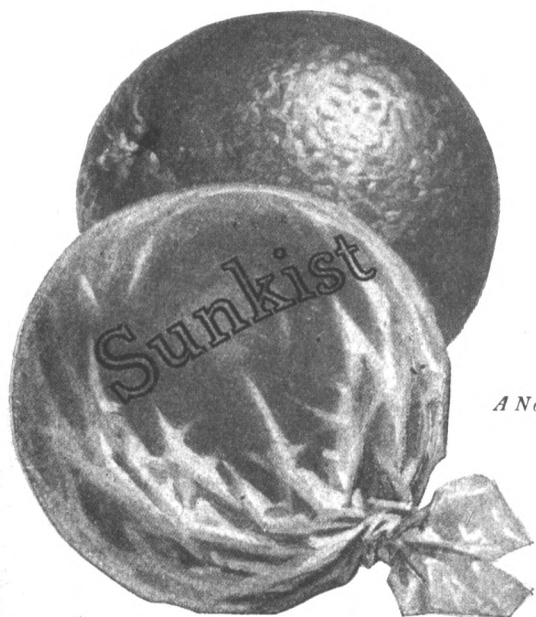
Remember these facts also when you choose the entire family's daily food, for fresh fruit is equally important to grown-ups.

"More RAW foods with the meals," is the modern expert's warning which is being sounded everywhere today.

However, in every question of the diet your own physician should finally advise.

We wish to make no statement that is not well within the facts.

Show him this page and ask his opinion. Then use orange juice for your child, as he directs.



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EIGHT CENTS FOR ONE



The White Desert

(Continued from page 582).

by the shoulder and was shaking him gently. A voice was calling, and Houston stirred, dazedly obedient to its command.

"I hate to awaken you—" It was a woman; her tones compassionate, gentle. "But they're whistling for the night crew. They've still got you on the list for firing."

Houston opened his eyes and forced a smile.

"That's all right. Thanks—thanks for waking me."

Then he rose and went forth into the agonies of the night—willing, eager, almost happy. A few words from a woman had given him strength, had wiped out fatigue and aching muscles, and cramped, lifeless limbs—a few words from a woman he loved, Medaine Robinette.

CHAPTER XXIII.

IT was a repetition of the first night the same churning of the plows, the same smaller machines working along the right of way to keep the rails clear of drifting snow and ice particles, the wind howling again and carrying the offal of the plows in gigantic spouts of dirty white high into the air, to lash and pulverize it, then swish it away to the icy valleys beneath, where drifts could do no harm, where there were no struggling crews and dogged, half-dead men.

A repetition of the foul-smelling wooden tunnels, the sulphur fumes, the gasping of stricken men. The same long, horrible hours, the same staggering release from labor and the welcome hardness of a sleeping spot on a wooden floor. Night after night it was the same—starlight and snow, fair weather and storm. Barry Houston had become a rough-bearded, tattered piece of human machinery like all the rest. Then, at last—

The sun! Shining faintly through the windows of the bunk car, it caused him to stir in his sleep. Dropping in a flood of ruby red, it still reflected faint streaks of color across the sky, when at last he started forth to what men had mentioned but seldom, and then with fear. For tonight was the last night, the last either in the struggle or in the lives of those who had fought their way upward to the final barricade which yet separated them from the top of the world—the Death Trail.

Smooth and slick it showed before Houston in the early moonlight, an icy Niagara, the snow piled high above the railroad tracks, extending upward against an almost sheer wall of granite, in stacks and drifts, banked in places to a depth of a hundred feet. Already the plows were assembled—four heavy steel monsters, with tremendous beams lashed in place and jutting upward, that they might break the overcasts and knock down the snow roofings that otherwise might form tunnels, breaking the way above as the tremendous fan of the plow would break it below. This was to be the fight of fights, there in the moonlight. Houston could see the engines breathing lazily behind their plows, sixteen great, steel contrivances, their burdens graduated in size from the tremendous auger at the fore to the lesser, almost diminutive one, by comparison, at the rear, designed to take the last of the offal from the track. For there would be no ice here; the drippings of the snowsheds, with their accompanying stalactites and stalagmites, were absent. A quick shoot and a lucky one. Otherwise—the men who went forward to their engines would not speak of it. But there was one who did.

She was standing beside the cook car as Houston passed, and she looked toward him with a glance that caused Barry to stop and to wait, as though she had called to him. Hesitatingly

she came forward, and Houston's dulled mentality at last took cognizance that a hand was extended slightly.

"You're still working on the engine?"

"Yes."

"Then you'll be with them?"

"On the Death Trail? I expect to."

"They talk of it as something terrible. Why?"

Houston pointed to the forbidding wall of snow. His thick, broken lips mumbled in the longest speech he had known in days.

"It's all granite up there. The cut of the road-bed forms a base for the remainder of the snow. It's practically all resting on the tracks; above, there's nothing for the snow to cling to. When we cut out the foundation—they're afraid that the vibration will loosen the rest and start an avalanche. It all depends whether it comes before—or after we've passed through."

"And you are not afraid?" She asked it almost childishly. He shook his head.

"I—don't know. I guess every one is—a bit afraid, when they're going into trouble. I know what I'm doing if that's what you mean."

She was silent for a long moment, looking up at the packed drifts, at the ragged outlines of the mountains against the moonlit sky, then into the valleys and the shimmering form of the round, icy lake, far below. Her lips moved, and Barry went closer.

"Beg pardon?"

"Nothing—only there are some things I can't understand. It doesn't seem quite natural—"

"What?"

"That things could—" Then she straightened and looked at him with clear frank eyes. "Mr. Houston," came quietly, "I've been thinking about something all day. I have felt that I haven't been quite fair—that a man who has acted as you have acted since—since I met you this last time—that he deserves more of a chance than I have given him. That—"

"I'm asking nothing of you, Miss Robinette."

"I know. I am asking something of you. I want to tell you that I have been hoping that you can some day furnish me the proof—that you spoke of once. I—that's what I wanted to tell you," she ended quickly and extended her hand. "Good-by. I'll be praying for all of you up there."

Houston answered only with a pressure of his hand. His throat had closed suddenly. His breath jerked into his lungs; his burning, windtorn lips ached to touch the hand that had lingered for a moment in his. He looked at her with eyes that spoke what his tongue could not say, then he went on—a shambling, dead-tired man, even on awaking from sleep, but a man whose heart was beating with a new fervor. She would be praying for all of them up there at the Trail. And all of them included him.

At the cab of the engine, he listened to the final instructions of the cursing, anxious superintendent, then went to his black work of the shovel. Higher and higher mounted the steam on the gauge; theirs was the first plow, theirs the greatest task. For if they did not go through, the others could not follow; if their attack were not swift enough, staunch enough, the slide that was sure to come sooner or later would carry with it mangled machinery and the torn forms of men into a chasm of death. One by one the final orders came—crisp, shouted, cursing commands, answered in kind. Then the last query:

"If there's a damn man of you who's a coward, step out! Hear that? If you're afraid—come on—there's no stopping once you start!"

(Continued next week.)



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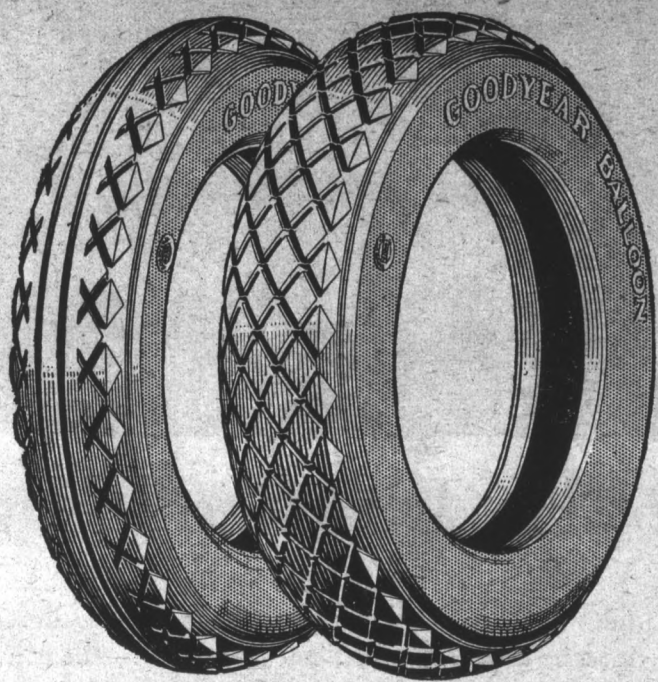


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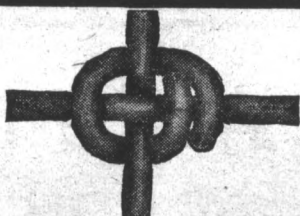
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A Teacher---Statesman

Our Weekly Sermon—By N. A. McCune

WHEN I think of Elisha I think of the late Canon Barnett, of England. Elisha was a true shepherd of his people. He was always on duty where the danger was greatest. Barnett was like that. When a young man just out of the university he went to the east end of London, known as Whitechapel. It is a most poverty-stricken section. One who lives there lives in moral slime. Drink, crime, poverty, are the untiring trio that make up Whitechapel. Barnett opened a little church there, and had seven old women for his congregation. He started classes for poor working girls, and sometimes the class would break up in a fight. He started lecture courses and art exhibitions, and was branded as a dangerous radical. He founded a university center, so that educators and ministers could come to Whitechapel and live there for a few weeks or months each year, and thus come into direct contact with the privation and suffering of the poor. The



idea took root and Toynbee Hall has become a center of considerable influence throughout England. The Americans go there to study. Barnett was at last recognized by his church and made a canon of one of the cathedrals. All his life he was a teacher. He was also a spiritual statesman, whose work will stand after that of many an office-holding statesman has been forgotten.

Elijah was terribly discouraged, as he fled from Jezebel. "They have torn down thine altars and slain thy prophets with the edge of the sword, and I, even I only, am left," he cried. But a few days after that he met a young man who was to be his successor. He must have had some means, for he owned twelve yoke of oxen. When the old prophet threw his mantle over the young farmer, as a signal that he was to be a prophet from that hour, the commission was accepted instantly. Elisha made his decision sure, by a complete break with the past. He slew the oxen as a burnt offering, and burned the plows, to show that henceforth he was to engage in a different type of work. The old was past, the new was begun. There must be no wavering, no vacillation. He had made his decision and he determined to make the break with the old as pronounced as possible.

I READ not long ago of a Scotch fiddler, who played for dances. There was always plenty of liquor at the dances, so that he usually had to be assisted home. His wife was a quiet, praying Christian. At last the fiddler was converted, and united with the church, to the great joy of his wife. The following Sunday afternoon he took down the fiddle and began tuning up. His wife looked at him reproachfully, and at last said, "Remember, Sandy, it's the Sabbath." Sandy played one dance tune through, then laid the violin on the floor and jumped upon it, smashing it in a hundred pieces. That was his way of breaking with the past.

If one is going to act on a new line of conduct, the thing for him to do is to act, and give himself all the advantage possible. Matthew resigned his post as tax collector, James and John gave up their business as fishermen. James, the American psychologist, says that when one decides to begin a new habit he should give himself every advantage. "Accumulate all the possible circumstances which shall reinforce the right motives; put yourself assiduously in conditions that encourage the new way; make engage-

ments incompatible with the old; take a public pledge, if the case allows; in short, envelope your resolution with every aid you know." Elisha did that. He took a public pledge. That also is the significance of joining the church. It shows you are in earnest, and are not ashamed of it.

ELISHA figured in many stirring events, during his long prophetic career. The two kings of Judah and Israel one day went to join battle with the king of Moab. The armies marched around the southern end of the Dead Sea, but en route they found themselves in an arid region, desperately needing water. The kings then presented themselves to Elisha, craving his help. The prophet rebuked the idolatrous king Jehoram, but was ready to assist the king of Judah. Bidding the kings dig ditches in the dry soil to show their faith, Elisha prayed, and a flood of water filled the ditches, and saved the armies.

A poor widow had two sons, who were liable to be taken as slaves to pay her debts. She had but one pot of oil. Elisha advised her to borrow vessels of her neighbors, saying that they would all be filled with oil. She had faith to borrow only about so many. They were filled, she paid off the debts with the surplus oil, and lived on the remainder. Very likely she regretted to the end of her days she had not borrowed more vessels.

THE most beautiful of the prophet's miracles was the restoration of the Shunamite woman's son, while the most dramatic was the healing of Naaman's leprosy. A godly woman had observed that the prophet passed through her community often, and she fitted up a chamber for him, which was for his use exclusively. She had no child, and a son was promised her. One day the child died of sunstroke, and the mother rested not until she found the prophet and had told him of it. The child was restored to life. The whole story is one of delicate and touching beauty. The healing of Naaman, the leper, is a moving tale. Naaman, a military man who had distinguished himself in battle, was much offended when the prophet would not so much as come out to see him, but bade him wash seven times in the muddy Jordan. He turned away in a rage, but was persuaded by some sensible servants to make the trial, and was healed. Elisha refused the presents that were offered, but his servant Gehazi, followed the departing general, told him a lie, received a handsome gift, and returned to his master. His deception was detected, and he was cursed with the leprosy of Naaman, which would, he was told, cling to him and his family forever. "Elisha was a singular combination of passionate sympathy and fierce prophetic zeal. If he was more friendly with the people than Elijah had been, he was at the same time even more relentless in his efforts to extirpate the evil practices that were still prevalent in the nation," says Prof. H. L. Willett.

The Easter lesson is an alternative lesson with that of Elisha. The student of the international lessons may read either or both. Christ was the Perfected Elisha. What the prophet did not possess, Christ did. Truths that would have been unthinkable to Elisha formed the basis of all Christ's teaching.

SUNDAY SCHOOL LESSON FOR APRIL 20.

SUBJECT:—Elisha: Teacher and Statesman. II Kings 6, and I Kings 19.

GOLDEN TEXT:—Be not overcome of evil, but overcome evil with good. Rom. 12:21.



Doings In Woodland

The Little Bird Saves the Cabbages

IN Woodland, the animal folks have gardens just the same as we do, for they like crisp, fresh vegetables better than you, my little reader, like candy. Rolly and Bruin had the finest garden of all. The warm spring rains had made everything grow and Bruin had not allowed one weed to stick its head above the ground more than an inch.

Every evening when the rest of the work was done, they would go out into the garden to see just how far each new plant had grown that day.

"I believe this lettuce has grown an



"Just Look What's Happened Here." "inch since last night," said Rolly, one evening just as the sun was kissing the earth good-night. "Soon we can have some for supper."

"Fine, fine," said Bruin, "and just look at these radishes. They will soon be ready, too." Walking over to the rows of cabbages, he called to Rolly, "Just look what's happened here."

Now Rolly had tended these cabbages faithfully, for they were his favorite vegetable, and he liked them better than anything else in their garden.

In answer to Bruin's call, he came hopping over. But when he looked at the cabbages, he felt very discouraged. Little worms seemed to be everywhere on them, and some had big holes eaten in the leaves. What ragged looking cabbage plants!

"Oh, the horrid worms," said Rolly, "they will ruin my early cabbages. What can we do?"

"Too bad, too bad," said Bruin, "but in the morning, perhaps, I can find something that will drive them away. Bright and early the next morning Bruin was out in the garden to see what he could do. Carefully he looked all the cabbage plants over, but there wasn't a single worm on them.

"Oh, Rolly, Rolly," he called, "come here." And Rolly went hurrying to the garden to see what was the matter.

"There is not a single worm left," said Bruin, "Where do you suppose they have gone to?"

Together they searched the rows to see which way the worms might have gone, but all they could find was hundreds of little bird tracks.

"Ah, I have it," said Bruin, "Our little bird that had the broken wing has come back and helped us for helping him. All those worms didn't go away, but were eaten by the birds."

A little "chirp, chirp, chee-chee" in a tree right over their heads made them look up and there on the limb was the same little bird that had the broken wing. When he saw Rolly and Bruin looking at him, he just winked his eye and off he flew. But they were sure that he was the one who had helped to save their cabbage plants.



THE GREENS THAT GROW IN THE SPRING.

I NEVER feel that I've really cast the winter sloth out of my blood until I've enjoyed a good mess of greens," declared Mrs. Paisley. "Why aren't greens as good a spring tonic as the stuff you buy in bottles, doctor?"

I do not intend to argue the point. I think they are. I'll go a step further and admit that I know of no spring tonics confined in bottles, capsules or pills that are anything like as good. And while I am stepping I will even step far enough to assert that these green things are good for one, not only in the spring of the year, but also at all other seasons.

Vitamines! Certainly. They abound in two important classes, known technically as B. and C., being the vitamins that make for proper nutrition and prevent scurvy. That, in itself, is enough argument for greens as a spring tonic. As to clearing out impurities, if prepared properly and eaten in sufficient quantity, they are good scavengers. No bugle call at reveille is necessary for their devotees.

So Mrs. Paisley is right. Greens may be her tonic, whether they be dandelions, mustard, beet-tops, chard or spinach. Even cabbage may be classed under the general classification, and when it comes to vitamins there are few agents to excel this humble friend.

But don't stop with the spring. Take

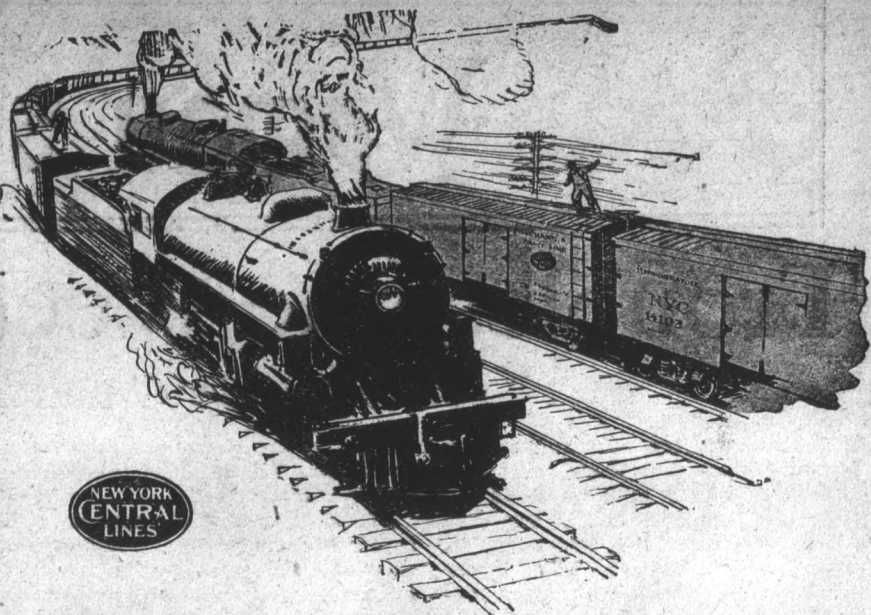
the beneficent greens the whole year around. You can get a great deal more iron into your system by including spinach in your diet, than by taking medicine from dark-colored bottles and being especially careful not to allow the spoon to become discolored. You can prevent and even cure constipation much better by eating head lettuce, chard, cauliflower, cabbage and other leafy vegetables, than by any amount of nauseous cathartics.

I know of many spring tonics, done up splendidly in attractive bottles and elegant cartons. Some are a dollar a bottle, and some two dollars a bottle, and some are three bottles for five dollars. But none possess the real, revivifying, organ-racing, toning up, purging out, pushing along, spring tonic properties of the succulent mess of greens.

HAS SORE BACK.

I have an awful sore back and at times it feels as if there are drops of water running down my spine and in evenings when I undress my clothes are damp.—D. P.

Since you have the evidence of wet clothing it seems that you actually do have "drops of water" or perspiration. There being no particular reason for such unseasonable sweating, combined with soreness of the back, leads one to suspect some serious complaint, possibly a tubercular abscess of the spine. You must have a very thorough examination by a skilled physician at once.



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Fruit Farm For Sale Twenty-seven acres on Iuka State Road. Reasonable price. For particulars, write, M. J. Waltemate, R. 3, Hastings, Mich.

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



Woman's Interests



Troublesome Weeds as Blood Purifiers

Serve Variety Greens and Save the Doctor Bill

IF these country men and women would learn that there are better spring tonics in their meadows and fields than can be found in any drug store, they would be better off," a physician once told me. Many housewives would consider some of our "noxious weeds" delicious if they were sold on the market as early green succulent foods. But when these same plants may be had for the picking they are scorned. These early greens are wonderful blood purifiers and should make a large part of our spring diet.

There are many elaborate salads, etc., in which dandelions and other spring greens play an important part, but to most of us the old-fashioned "boiled greens" are the best. A simple and reliable way to cook them is to boil till tender in salted water, with a good ham bone, or lacking this, slices of bacon or salt pork may be used. When tender, drain and cut

Cowslips are one of the best greens known, and are usually quite plentiful in low, marshy land.

Of all greens, wild mustard is the favorite in our family. It is fine cooked with other greens or by itself. It is easy to pick and easy to clean, and makes a good substitute for lettuce.

The young, tender sprouts of milkweed make an excellent substitute for asparagus. It is cooked the same and served the same. When the leaves are larger they make good greens.

Greens are ready to use before the garden vegetables and fruits are ready to be canned, and as the housewife is

are wonderful helps to slip under corn, peas, preserves and other things likely to stick to the pan while cooking. I don't know how much wearisome pan cleaning they have saved me. For very slow cooking I use an old stove lid to slip under the kettle, thus getting a chance to cook mush or cereal a long time on the back of the stove.

Out of old tin can lids I have made some handy trays to use under pudding tins, or brown bread cans or anything that needs steaming. Simply take a nail and drive a number of holes in the can lid and then use it in a kettle of boiling water to keep the

cracker box with holes stamped in the bottom with a nail makes a colander that will hold three times as much as the ones bought in the stores. As a tray for sunning preserves I use the cover of a lard can and over the top put another cover of a wornout can from which the inside has been removed with a can opener. By inverting the upper lid and putting in a round pane of glass one can be sure the wind will not blow off the glass as sometimes happens. When the kitchen floor is cold a thick piece of plank heated in the oven and slipped into a bag made of old carpet will keep the feet warm while washing or ironing. Also nice for a heater in riding. —Hilda Richmond.

TRY THIS SPRING APPETIZER.

TAKE the little yellow sprouts from the turnips that have been in your cellar all winter. Wash, cut in small particles, salt, and cover with a very tart salad dressing.

This practically saved my life one spring. I will guarantee this to bring an appetite to any one who will eat it. If the first dish does not taste so good, fix another some time. My neighbors all agree with me.—Mrs. E. C.

OPINIONS OF A FARMER'S WIFE.

THE business of farming is the only business on earth whose success depends so wholly on the hearty cooperation of husband, wife and family. Each has a vital part in the partnership. But do we not fail our "Johns" many times when it comes to exercising our privilege as voters? Do we go to the polls and help put across legislation needed to put agriculture—the best business on earth—on a paying basis? Let us be honest, sisters, and answer this question fairly. Let us become a well-nigh solid mass of race-survivalists standing for the elimination of the great race destroyers—lawlessness, poverty, drugs, disease, liquor and war.—A Farmer's Wife.

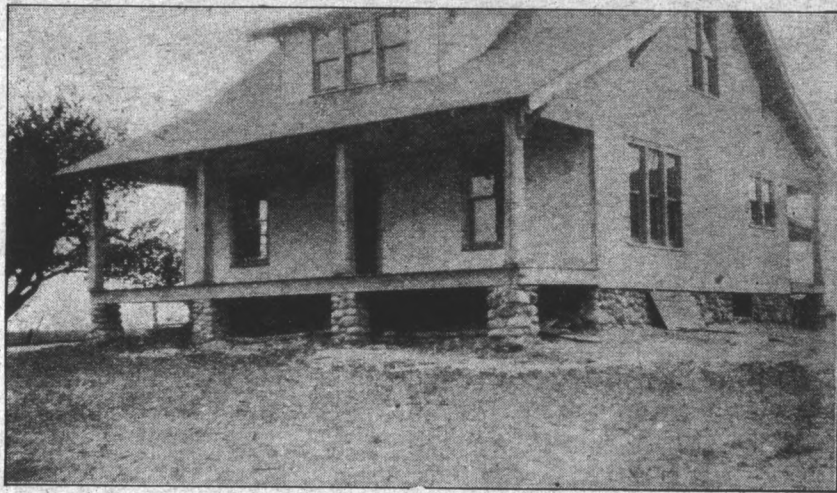
PALATE-TICKLERS FOR SPRING.

IN this sort of "in between" time we hear the cry on every housewife's lips, "What shall I cook?" It doesn't seem as if anything tastes good." How about digging some horseradish one of these nice days and fixing escalloped potatoes with alternate rows of freshly smoked ham?

Those apples (which perhaps are getting a little shriveled), why not make a salad by cutting into cubes and adding nutmeats. It makes a wonderful change to whip cream and add the salad dressing to the cream before covering the apples. Another salad we enjoy very much is a can of carrots and hard boiled eggs, to make the same quantity take a couple of onions, cut all into small pieces, and salad dressing with or without whipped cream. Serve in a salad dish or on lettuce leaves.

As a real surprise go to the garden and bring in the first parsnips and vegetable oysters.—G. M. G.

An ordinary paint brush will remove the dust from the crevices and corners more readily than the duster.



J. Crowley, of Clare, Built this Fine Farmhouse and Lives There.

not usually so busy then as she is later in the season, it is a good plan to can some for winter.—N. P.

HOME-MADE CONVENIENCES.

FIRST of all my home-made things I would place the squares of galvanized iron or heavy tin cut from old pans. These are of various sizes and

pudding from scorching in the can or overturning in the water. I have one large kettle that will hold three pound cans and three trays so that I can make a pudding and get two loaves of brown bread done at the same time.

My flour duster delivered the flour rather slowly, so with a nail I made a new one out of a baking powder can by punching some holes in the top. A

Keep the Girls on the Farm

IT becomes a source of pride, profit, and pleasure to every father who has been a tiller of the soil when his son (or plural, as the case may be) chooses to follow the farming profession. In tempting the son to make this choice, and to develop his interest agriculturally, the father gives him a pig or a calf for his very own, or a part interest in some live stock or crop project.

But tipping the scales on the other side is the farm girl. The result of an investigation by a national woman's magazine proved that ninety-four per cent of the farm women reporting were desirous of their daughters becoming the first party in matrimonial contracts with farmers. But what are mothers doing to develop their daughters' interest, inspiration and education in a farm home and the management of it?

It is during the girlhood of these daughters that conditions, experiences, and environment mold their impression of the life of the farm wife. If these molding factors can only be such that they awaken in the farm girl a keen interest in the farm home and the love of it, and its advantages, then it is that the farm girl will become the woman with the desire in her heart to govern and manage a farm home.

Much is being done through the Boys' and Girls' Club Organization to train and interest farm girls in the business of the rural home. But within that home the girl should have a definite responsibility. She should feel that she fills a niche in the management of the home if she is to remain there contentedly.

An excellent way of holding the girl on the farm is that she have a financial interest there. This may be brought about in many ways,—the canning of home-grown fruits, vegetables and meats for sale, or canning them for neighboring housewives, the wayside tearoom, specialties in baked goods, cottage cheese, jams and jellies, and the growing of flowers, plants and bulbs, and garden plants.

We will be glad to help any farm girl plan her little profit-making enterprise if she writes us, stating resources fully, and preference as to what she would like to do best. We would also be glad to publish the experiences of farm girls and mothers who have worked out various schemes of making money at home.—Martha Cole.

MIGHTY is the force of motherhood! It transforms all things by its vital heat; it turns timidity into fierce courage, and dreadless defiance into tremulous submission; it turns thoughtlessness into foresight, and yet stills all anxiety into calm content; it makes selfishness become self-denial, and gives even to hard vanity the glance of admiring love.—George Eliot.

across several times with a very sharp knife. Pour ham, bacon or pork fryings, or melted butter, over them and serve hot. If any are left, they may be reserved by molding in tiny cups and French dressing added just before serving.

Never be careless in cleaning the greens. Each leaf should be washed separately, and on each side.

Purslane may be cooked alone or with other greens. It makes a delicious addition to stews and soups, and is a member of the Portulacace family. It is one of the few greens that is good when served either hot or cold.

Long before our garden greens are ready for use—and sometimes before they are planted—the sour dock is ready for use. We consider it superior to either kale or spinach, and although some people object to using it because of the acid contents, there is in reality not enough acid in the plant to be in the least injurious. These same people eat rhubarb without a thought of danger from the acid, and yet there is more acid in a single stalk of rhubarb than in enough sour dock for an entire meal. This plant will furnish greens until there are plenty of others to take its place.

Lambs' quarter is not liked by some people because of its flat taste, but when used with mustard, or some other leaf with a sharp taste, is delicious.

Wild sorrel is good as greens, and also makes a delicious and unusual soup when boiled very gently in rich beef stock. Be very careful that it does not boil to pieces. When tender, serve with buttered toast.

Of course, everyone is familiar with dandelions, but some people do not know that it is the best plant known for the liver.



HOUSEHOLD SERVICE

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

HAIR TURNING GRAY.

Will you please tell me how to bleach a medium brown hair switch. My hair has faded and is turning gray so fast I can't wear my switch. I need it as my hair is so thin I can't keep my hat on. Mrs. L. S.

I believe there is no way in which you might bleach a medium brown hair switch so that it would match your hair that is turning gray. In bleaching it, it would become merely a lighter shade of brown.

The best way would be to send it to a hair dresser's and have gray hairs added to it. If you are interested in this, I could furnish addresses of reliable places where you might have this work done.

GENUINE BUCKWHEAT CAKES.

Papa and mamma have been discussing how to make buckwheat pancakes. We would like a recipe for making genuine buckwheat cakes.—Miss E. W.

If mother will make cakes after the following recipe, father ought to have no argument over them.

$\frac{1}{4}$ cake compressed yeast 1 lb. molasses
 $\frac{1}{2}$ cup lukewarm water 8 cups water
 1 tsp. salt Buckwheat flour
 1 tsp. melted butter

Break the yeast in small pieces and soak in the half cup of lukewarm water. Then put it in a pitcher and add 8 cups of lukewarm water, the salt and sufficient buckwheat flour to make a smooth pour batter. Let stand overnight. In the morning dip out 2 cups of batter and set aside. To the portion to be used, add the molasses and melted butter. Mix together lightly and bake on a griddle.

If there is batter left after breakfast, pour it into the 2 cupfuls saved out and set away. The night before

using, add 2 cups of lukewarm water, 1 teaspoonful of salt and sufficient buckwheat flour to make a pour batter. In the morning add 1 teaspoonful of melted butter and 1 tablespoonful of molasses. Stir in $\frac{1}{4}$ teaspoonful of soda, which has been dissolved first in a little cool water. In case one wishes to use the batter several mornings in succession, always save out some of the batter before adding the molasses and melted butter.

TO CAN FISH.

Can you tell me some way to can fish? I like fresh fish but I don't care for them when they are in salt.—Mrs. A. L.

Clean the fish thoroughly, split and remove the backbone. Place in a brine strong enough to hold an egg, for ten minutes to one hour, according to the thickness of the fish. Drain, wipe dry and cut into pieces that will pass through the opening of jar, and fry in deep fat. Drain on pieces of paper to absorb the excess fat. Pack in jars to within half an inch, partially seal and process in hot water bath for three hours or in steam cooker one hour. Finish sealing and store in a dry, cool place.

CAN YOU HELP US.

A FEW years ago I ate dinner at a farm home where they had green peas cooked—just pods. They said there is a certain kind of pea that you may cook the pods while tender. I wonder if any of the readers can help me to get some of the seed by telling me where to get them.

Also, can any reader tell me where I can get words and music to the song used by the Seventh Cavalry in the late war, "Garry Owen"? And does any one know if it can be had on a phonograph record?—Mrs. M. E. S.

Gardening Has Commenced

SATURDAY P. M.; time, three thirty. The farmer's wife finds all in readiness within her home for the day of rest. Peeps into the pantry and on the shelf sees delicious custard pies, made of good rich cream and fresh eggs. A little more peeping discloses two plump chickens dressed and partly cooked for Sunday dinner.

Satisfied that all is well within doors, she pulls on rubbers to look over the garden situation and visit the barnyard babies. As the door opens, she sees the chickens scratching among the litter covering last year's flower beds, and immediately decides that their vacation days are over and chicken park gates will close on them at sundown. Looking to see if any mischief has resulted from their efforts, she finds the first spikes of tulips, daffodils, narcissus and other "early risers" in garden parlance.

John, coming across the road at 5:45 finds Mary, busy as the proverbial bee, and supper forgotten. Being the model husband that he is, and knowing flowers are mother's hobby, he just gently hints that he is hungry. With a look of deep contrition the rake falls from her hand and fifteen minutes later supper is steaming on the table.

Mary eats in silence, an absorbed look on her face. Shall it be morning-glories or nasturtiums at the back kitchen window; shall it be zinnias with their stiff stems, or scabiosa waving gently with each breath of wind, for the little strip at the side of the dear old wood house? Hollyhocks pro-

test it in front from the view of curious folk who have no sentiment for the shabby little building where the lassies—now doing their work in the game of life, far away from home—played at housekeeping each Saturday in pleasant weather; where the ladies whittled out boats, whistles and all the things dear to a boy's heart. Still in a dream the dishes are washed and put away.

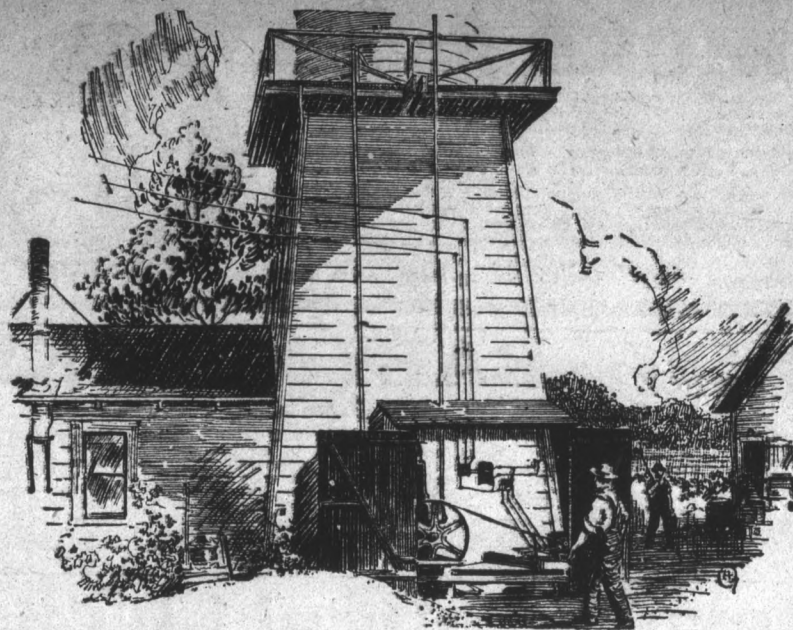
With the chores done, soft slippers are put on to rest tired feet. Then seed catalogues come down and relative merits of vegetables and flowers are pondered for Mary, for she has Scotch blood in her veins and displays a canny trait at all times. Finally a list is made out, including seeds for the surprise vegetable and flower beds where new things are tried out.

If Garden Week, April 20-26, was observed by every farmer's wife, this year, in Michigan, it would go a long way toward making the farm home a place of beauty, a real home and not just a stopping place. It is conceded that no civilization rises higher than the ideals which motivate its women. Let's we farm women, who are the partners of our farmer husbands, have ideals which will place agriculture, the best business on earth, at the head of the list.

Hoping that pansy faces, sweet mignonette and asters do not get mixed up with our dear old pastor's discourse tomorrow, I am,

Your sister on the farm,

I. K.



How State Groups of Farmers are Helping the Work of Electrification

Why are many farms along the Pacific Coast and in the Northwest electrified but many more in other parts unelectrified? Local conditions furnish the answer.

Nature made irrigation a necessity on many western farms, and irrigation-water can be pumped electrically at a rate which makes its use profitable to the farmer.

Population plus use makes electrification possible. Existing and potential possibilities for growth and use make electrification possible. As we know more about the possible farm uses of electricity we shall have more farm electrical devices.

Electrical engineers alone cannot solve this problem. Agricultural engineers alone cannot solve it. There must be a thorough, co-operative study. Such a study is now being made by a National Committee of experts. They have organized state groups of farmers to whom electricity is experimentally supplied. These farmers, guided by their state agricultural colleges and by farm-paper editors, keep accurate production costs and compare them with those of the past.

This work is fast revealing so many new, profitable ways of utilizing electricity that thousands of farms will be electrified sooner than farmers realize. Farms already electrified will make even greater use of electric power; others will install electric labor-saving devices in the manner that actual tests have proved to be profitable.

The National Committee in charge of the work is composed of economists and engineers representing the American Farm Bureau Federation, the Departments of Agriculture, the Interior and Commerce, the Power Farming Association of America, the American Society of Agricultural Engineers and the National Electric Light Association.

A booklet has been published by the Committee. It will be sent on request free of charge. Read it and pass it on to your neighbor. Write for it either to Dr. E. A. White, American Farm Bureau Federation, 53 E. Washington Street, Chicago, Ill., or to the National Electric Light Association, at 29 West 39th Street, New York City.

NATIONAL ELECTRIC LIGHT ASSOCIATION

--SALT--FISH--

New Salted Flat Lake Herring, back split and headless, 200 lb. barrels, \$10.00; 100 lb. kegs, \$5.50; 50 lb. tubs, \$3.75; 20 lb. pails, \$1.65; Salted Pickered, back split and headless, 100 lbs., \$9.00; 50 lbs., \$5.50. Order your Summer's supply now. Write for complete price list.

JOHNSON FISH CO., Green Bay, Wisconsin.

You can cut our Washington Asparagus next year

Plant our Giant Washington Asparagus Roots this spring. Cut asparagus in 1925. Our roots save you 2 to 3 years.

Giant Roots of this quality are grown only at Riverview Farms. They are sure to live—rust resistant and vigorous growers, big producers of tender green stalks of the most delicious flavor, one to two inches thick. They always command a price premium.

Send today for valuable free booklet and Garden Price List or Commercial List.

Riverview Farms, Box 16, Bridgeton, N. J.

Why Burn Coal

or wood when you can burn gas in your stove or heater by installing a Uni-Hete Kerosene Burner (with exclusive 1924 features) in five minutes time. It gasifies common kerosene to the hottest and cheapest fuel known. Does away with dirt and high fuel cost. Heat regulated to any degree by valve. Increases stove efficiency 100%. Has brought joy and economy to thousands. FREE TRIAL. Saves its cost in 30 days. Write quick for full particulars and introductory price.

Special Offer to Agents

Today's fuel prices make the Uni-Hete a big money maker for agents. We have made oil heating devices for 25 years. Acorn Brass Mfg. Co., 432 Dearbidge, Chicago, Ill.

A Thrift Hint!

Make Your Own Syrup with MAPLEINE



Try Mapleine-made syrup tomorrow. Rich and delicious—made in a jiffy! Economical too! Costing only about 22c a quart.

Your grocer sells Mapleine

SAVE YOUR BUILDINGS WITH BEST QUALITY



Made Fresh For Your Order, and Guaranteed For 5 and 7 Years

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You will be greatly pleased after you use it. INSTRUCTIONS for painting with each order. Write today for my FREE PAINT BOOK and Color Cards. Tells why paint should be FRESH. ESTABLISHED IN 1903.

O. L. CHASE, The Paint Man Department 17 ST. LOUIS, MO.

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 hundred and up. We have a limited number of superior grade chicks from special matings. 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. Wiersma, 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 & Buff Leghorns, Anconas	\$3.75	\$7	\$13	\$60	\$120
White & Barred Rocks, Reds, Black Minorcas	4.25	8	15	72	140
White Wyandottes, Buff Orpingtons	4.50	8.50	16	77	140
Buff Minorcas, Silver Laced Wyandottes	6.00	11	20	100	140

Mixed chicks \$10.00 per 100 straight.

Postpaid. 100 per cent live arrival guaranteed. Order right from this ad.

Bank references. Circular Free.



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	\$6.50	\$12.00	\$57.50	\$115.00
Barred Rocks, S. C. Reds	4.25	8.00	15.00	72.50	140.00
Odessa and Ends	3.00	5.50	10.00		

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



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	25	50	100	500	1,000
Leghorns (S. C. White and Brown)	\$7.00	\$13	\$23	\$120	\$220
Barred Rocks	8.00	15	25	120	220

Mixed Broiler Chicks, \$12 per 100 straight. Hatched under 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. GREAT NORTHERN HATCHERY, Box 56, Zeeland, Michigan.



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 Hogenized 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 APPELDORN, R. 7, 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.

BABY CHIX

PEDIGREE SIRE 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.

BOURBON RED TURKEYS.

MY neighbor who raises Bourbon Red turkeys likes them because they do not range over as large a territory as the Bronze turkeys. Last year his Bourbons spent most of their time in an alfalfa field back of the barn and did not wander over neighbors' farms. Some of the turkey hens kept their broods in the alfalfa field all summer and they seemed to thrive and grow rapidly with very little feed aside from the alfalfa and insects which they gathered themselves.

The Bourbon turkeys are not as large as the Bronze, but many city families prefer a medium sized bird for financial reasons, and the Bourbon finds a ready sale among buyers who cannot afford a larger bird. The quality of the meat is excellent and the breed seems fully as vigorous and resistant to disease as any turkeys raised in our section.—R.

ANOTHER FLOCK RECORD.

IN your issue of March 29 I read the article about Mr. J. Little's White Leghorns and thought it was a good record.

Now I want to give you my record of fifty pullets and five two-year-old Barred Rocks. They were hatched on May 11, 1923, and commenced laying the last of November.

December	324
January	638
February	342
March	1,123

Total 2,927
Cash received \$83.00

What do you think of that?—Mrs. F. L. C., Grand Ledge, Mich.

WATCH FOR BROODY HENS.

IN large farm flocks of the heavy breeds there is considerable loss because of the large number of hens not needed for hatching purposes which waste time while broody. It is found that the average hens of the heavy breeds will go broody four times each year and some hens will have as many as nine broody periods. When a hen becomes broody she may lose about twenty days before returning to laying condition and that may mean a loss of about a dozen eggs from her yearly record.

It is also found that the longer a hen remains broody up to a certain limit the greater the time it requires to return to laying condition. After a hen has been broody for several days the organs of reproduction seem to grow smaller and it takes a longer time for them to return to normal than as if the hen had been removed from the nest promptly and broken up.

I go through my houses every night at sundown and take every broody hen from the nest. They are then confined in broody crates for about three days or longer, depending on their actions which somewhat indicate the intensity of the broodiness. Then they are freed at sundown and any birds that return to the nests are again placed in the broody crates.

At seasons when there may be fifty or more broody hens at the same time I also use a colony house as a broody crate. The house contains a mash hopper and one for grit and shell. The broody hens receive plenty of scratch grain and fresh water. There are roosts in the colony house but very little litter on the floor which might be used for nesting purposes. In three or four days the hens can be freed and very few will return to the nests. I have found it pays to break the hens up quickly when they show signs of broodiness. The longer they remain on the nests the greater the difficulty of breaking them up.

A large number of broody hens in summer make it more difficult to produce high quality eggs as the broody hens are always on the nests covering the eggs laid by other hens and keep-

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.

Burrell-Dugger Company,
602 Allen Avenue Indianapolis, Indiana

\$13.95 Champion \$21.95
Belle City
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 \$28.95
Express Prepaid
East of Rockies and Allowed West. Low Prices on Good and Old Country 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 Roban, Pres.
Belle City Incubator Co. Box 14 Racine, Wis.

Write Quick for REDUCED PRICES
CERTIFIED CHICKS
From World's Best Laying Strains
Tanned pedigree-sired, and Tom Barron S. C. White Leghorns, R. C. Rhode Island Reds; Park's Barred Plymouth Rocks.
Your Satisfaction Guaranteed
Our flocks are all inspected and certified by the Michigan Agricultural College. Watch our pens at M. A. C. East Lansing, Mich. Every bird is well matured and vigorous. No culls in our flocks. Our chicks are bred right, hatched right, and shipped right. Every one is strong and healthy. 100% live delivery postpaid. Satisfaction absolutely guaranteed.
Illustrated catalog sent free. Buy Lakeview chicks if you want to make money. Write for low prices today sure.
Lakeview Poultry Farm, R. 3, Box 5 Holland, Mich.

Certified White Leghorn CHICKS
HOLLYWOOD
MATED \$15 per 100
Sired by Hollywood males whose dams had egg records of 250 to 300. Stock certified by Michigan Baby Chick Ass'n.
Rural Strain, \$13
Brown Leghorns, \$14-\$15
Anconas, Barred Rocks, Large Illustrated catalog free
RURAL POULTRY FARM
Box 109, Zeeland, Mich.

DAY OLD CHICKS
HOMESTEAD FARMS
Pure breed 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
887 N. Rose St. Kalamazoo, Mich.
Active Member International Baby Chick Association

ing those eggs warm. They occupy the nests needed by the layers and their quarrelsome dispositions may drive other hens away from the regular nests and induce them to hide their nests on the range or in other buildings. This situation can easily be prevented by keeping right after the broody hens and making it a regular business to confine them the first night they remain on the nests.—K.

PREVENTING WHITE DIARRHEA.

Have been giving my chickens, hatched on March 21, a preparation in the drinking water, for white diarrhea and so many have died that I would like to know if the water could be the cause. Other years I have lost many with diarrhea, so decided to try this recipe to prevent it. None of them had the bowel trouble, but as many have died as did with it before. The formula is: Fifteen grains zinc sulphocarbonate; 7½ grains sodium sulphocarbonate; 7½ grains calcium sulphocarbonate; 6 grains bichloride mercury; 3 grains citric acid. This to be dissolved in one gallon of drinking water.—Mrs. H. H.

I have never used the formula you mention in the drinking water for white diarrhea. As far as I can learn the scientific investigators of the experiment stations have not found a solution of that kind which can be recommended to either cure or prevent the trouble. Of course there are preparations on the market which have some value as disinfectants in the drinking water. White diarrhea has to be controlled by eliminating the carriers, keeping the breeding stock vigorous and doing everything possible to keep the chicks vigorous and growing rapidly so they will have a high resistance to infection.

If the use of this formula has seemed to increase your chick losses I would discontinue it. Then possibly a combination of sour milk, a growing mash, warm sunshine and a clean grassy range may save the remainder of the chicks. If that combination does not develop chicks, it cannot be done with medicine.

TURKEYS WITH WEAK LEGS.

Two of my turkeys haven't any use of their feet and legs; their toes double under their feet. They seem well at night, and in the morning I find them on the ground.—Mrs. J. B.

Leg weakness in fowls is a trouble which is not thoroughly understood but may be an outward sign of some other disease. I would isolate these birds where they cannot be trampled by other members of the flock. Place them in a dry sunny building and give soft feed that is easily digested such as bread and milk or laying mash mixed in a crumbly state with sour milk. The birds may gain in strength and appear perfectly normal as soon as the weather conditions are better and they can enjoy a wide range.

HENS EATING EGGS.

Would you tell me what can be done to stop hens from eating their eggs?—B. R.

I believe that egg eating is a vice among hens that starts from the lack of a balanced ration and a combination of idleness and open nests where the eggs are easily seen. Lack of nesting material may cause eggs to be broken when dropped on the bare boards. Hens may scratch in the litter of open nests and kick the eggs against the sides of the nest where they are broken. Lack of oyster shells will give the hens a craving for lime and also cause them to produce eggs with thin shells which are very easily broken.

When hens have the habit turn them out on range and gather the eggs at least four times a day. Then most of the eggs will be taken from beneath some of the hens and they will not stay in exposed nests very long. Darken the nests so the hens will enter from the rear on a track. Provide a balanced dry mash so the hens will always be able to satisfy their appetites without eating eggs.



Save Them!

You don't make money from dead chicks. Keep them alive—strong, thrifty, fast-growing.

Help protect them from White Diarrhoea, Simple Diarrhoea, Leg Weakness and other chick diseases.

Begin the very first day after chicks are hatched, by dropping

Dr. LeGear's Chick Diarrhoea Tablets

in the drinking water, as per instructions. That will pull them through the first few critical weeks. Then start using

Dr. LeGear's Poultry Prescription

in the feed daily—for both chicks and grown fowls.

You'll know, then, what real poultry results can mean. Your hens will lay better. Your pullets will lay sooner. Your whole flock will be in condition to resist disease.

Go to my dealer in your town today. Get these two remedies. Satisfaction guaranteed or money refunded.



Dr. L. D. LeGear, V.S.
(in Surgeon's Robe)



Dr. LeGear's Chick Diarrhoea Tablets in cans of 35 tablets. Dr. LeGear's Poultry Prescription in small, medium and large packages; 25 lb. pails, 100 lb. drums.
Dr. L. D. LeGear
Medicine Co.
St. Louis, Mo.

PURE BRED CHICKS
What our Customers say—
Elmer Arnold—801 eggs in 14 days in December from 25 June hatched White Leghorns; Herman Broecker—Bought 100 Anconas chicks, raised 89 pullets, 30 cockerels, F. R. Wallis—Ordered 100 chicks, received 103, raised every one. This wonderful vitality and laying ability shows why, as this is written, our S. C. W. Leghorns lead in Michigan's international laying contest. Our strains are Tom Barron Imported and Hollywood S. C. White Leghorns, Sheppard's Famous S. C. Mottled Anconas and Parks Bred to Lay Barred Rocks. Chicks shipped postpaid, 100% live delivery guaranteed. Big illustrated catalog sent free.
Silver Ward Hatchery, Box 29 Zeeland, Mich.

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.

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 Barred Rocks & Br. Leghorns. Quality and high egg yield due to 11 years careful breeding on our 65 acre farm. Culled, 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 Special Star matings. Postage prepaid.

John Line POULTRY FARM
ZEELAND MICH.

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.

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 for May Delivery.
50 100 500
Wh. Leghorns\$7.00 \$13.00 \$22.00
Ed. Rocks, R. I. Reds.....8.00 15.00 22.00

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

QUALITY CHICKS AT REASONABLE PRICES
English White Leghorns, Parks' 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 990 birds competing. Catalog free.
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, \$5. \$7; 100, \$13. Barred Rocks, Reds, Anconas, Minorcas, \$5, \$8; 100, \$15. White and Columbian Wyandottes, White Rocks, Black Spanish, Black Minorcas (choice). \$5, \$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
—Only
Pedigreed 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.

BEST CHICKS at Low Prices
Send for free catalog describing best bred chicks in the country. Tom Barron and Tanager 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.
Drummer-Fredrickson Poultry Farm, Box 20 Holland, Mich.

FREE FEED "Just-Rite" CHICKS
Most Profitable Varieties. Trapnest-Exhibition, Pedigree, and Utility Matings, direct from prize-winners at New York, Chicago, Nat'l Egg Laying Contests. Mailed 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

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.

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. Get quality chicks from these tested layers, mated to the choicest pedigreed sires, 11¼ 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. 4D, Hudsonville, Mich.

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.

QUALITY CHICKS
Strong Vigorous, Pure-Bred. The kind that live to produce a profit. From heavy producing English S. C. White Leghorns, (Barron Strain), carefully culled and mated to pure-bred males. Priced 10c and up. Price List Free. Postage and live delivery guaranteed. Reference: People's State Bank. **LAKE BLUFF HATCHERY, R. No. 1, Holland, Mich.**

BOS QUALITY: CLASS A CHICKS ONLY.
Strong, Healthy. From heavy layers. S. C. Tom Barron Eng. White Leghorns, Brown Leghorns 12c. Sheppard's Anconas 13c. Assorted 10c. No money down with order. 100 percent safe delivery. Postpaid. Catalog free. Bos Hatchery, Zeeland, Mich., R. 2M.

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

Leghorn B-A-B-Y---C-H-I-X Heavies
Black, Brown, Buff, White, Brahmas and Orpingtons, Anconas and Minorcas, Red Rocks Wyandottes. Allegan Hatchery on Highway No. 69. Send for 1924 price list. Crescent Egg Company, Allegan, Mich.

Additional Poultry Ads. on Page 599

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 260 to 289 eggs per year, and grand dams 298 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

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
White Br. Buff Leghorns, Anconas		\$7.00	\$13.00	\$60.00
Barred Rocks, Reds, Blk. Minors		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. All Heavies, 12 cents each. You take no chances. Only 3 hours from Detroit. QUALITY CHICK HATCHERY, Box A, Wauseon, Ohio.				

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
Breeder of high egg production, combined with sturdy free-range 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. 80,000 chicks weekly.
OVIE'S POULTRY FARM & HATCHERY
218 Boots Street Marion, Indiana

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.**

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

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 Orpingtons 9c up. Our large free catalogue tells all about our superior, egg pedigree stock.

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

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

OUR BOYS AND GIRLS

Just A Line or Two

From Merry Circlers and Want-to-bees

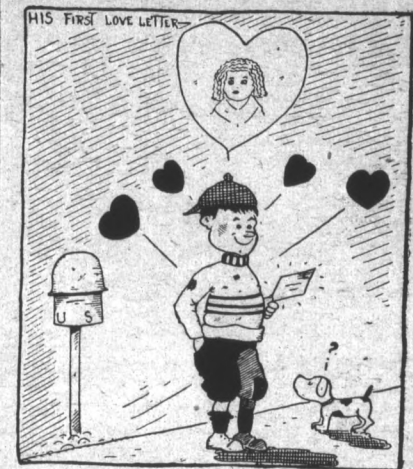
Dear Uncle Frank:—

My mother is a school teacher this winter, so I am "chief cook and bottle washer." Pa and I are the only ones that I have to cook for. Do you like to cook, Uncle Frank. If you do, maybe you know some things I don't know. Please write and tell me. Your maybe-nephew, Marshall Thompson, Traverse City, Mich.

No, I am not strong on cooking. When I have to get my own meals I get a bottle of milk and a bag of graham crackers and get busy.

Dear Uncle Frank:

I have written to you a good many times, but W. B. has always been hungry for my letters. Say, Uncle Frank, why don't you put your picture in the paper again. Well, will say



This Being Leap Year, Perhaps a Lot of Boys will have this Experience. Henry W. Walshagen, is the Artist.

goodbye for this is enough for the waste basket this time.—Your niece, Irene Lewis, M. C., Britton, Michigan.

If you write letters just good enough for the waste basket, you can hardly expect them to get into the Letter Box. So be more careful next time.

Dear Uncle Frank:—

Uncle Frank, do you believe in boys of my age starting a Bank Account. I have several dollars in the bank and I earned it myself, watching the gate at a gravel pit, and killing barn rats. I got ten cents each for rats, and one dollar a day for watching the gate to keep the stock from getting out. A new M. C., Donald Elsea, M. C. Ithaca, Mich., R. 7.

You can never begin too young in starting a bank account. The one who starts learning thrift early in life has the advantage over the others.

Dear Uncle Frank:

Just a few lines to tell you that I received the nice little box of candy as a prize for answering the jumble contest in the February 23 issue. I enjoyed it more than I can tell you, for I am a lover of candy. Daddy says I eat too much, of course, he knows.

I was a bit disappointed, and I couldn't quite understand why I won but third prize, as I had the jumble mess exactly correct, word for word. I also had the ad. contest in February 9 issue perfectly right in every way, with the exception of No. 1, and I did not receive any prize.

Now, Uncle Frank, I know you have a system and I would like to know and perhaps there are other M. C.'s too, that would like to know just how you plan it out.—Yours truly, Gertrude Verdon, M. C., Samaria, Mich.

I think I have answered your question in what I have recently said in these columns about contests. When there are perhaps a hundred who have a contest correct and we have only ten prizes, certainly only the ten very best can win.

Dear Uncle Frank:

Don't you hate to do dishes? Sometimes I wish there were no such things as dishes. Well, I must close,

as that table is just looking its eyes out at me to be set. Good-bye, Burdena Nelson, M. C., R. 2, Cadillac.

There are worse things to do than dishes. But I guess that at times we all feel that way about things. The best way to get rid of that feeling is to do the thing you feel that way about.

Dear Uncle Frank:—

I think it would be unfair to all of us if you gave the prizes to those that really were not supposed to get them. It is just like examination. The percent is so high and not less. If you get below the percent then you fail. I think that it should be like that in our circle. If someone has a better paper than you, he is entitled to the prize, not you, no matter how often you have tried.

Now what do you think of it Uncle Frank? I got a calf for nothing from our neighbor and I am going to raise it till it is four weeks old, then I will sell it and buy me a radio. But I will pay my father for the milk it drank. Now my seat partner and I do not talk so much of the Circle as we used to. I am following your advice. Good-bye to you and all the Cousins, I remain.—John Stutzman, Utica, Mich., R. 3.

I think you have the right idea about prizes. You must also have a good neighbor. I hope your profits will be large enough to buy a dandy radio set.

Dear Uncle Frank:

I was misrepresented in my last letter. I received letters addressed as Miss. This was to be expected, as the last letter was signed "Your niece." What I want to say is that I am not a girl, but a boy. I am glad I am a boy, too. A boy has more liberties than a girl, I think. He is always in the open air. A girl is always more or less tied to the dingy little kitchen.

How Club Work Helped Me

By Mary C. Murray

I BECAME interested in club work in the spring of 1922. Mr. Hagerman was the county leader then. He visited our school a few times and told the children all about club work. I was very interested from the first, but as I didn't go to school that year I thought that I wasn't eligible. Soon after this, A. L. Watt became our leader, and he asked us girls to join, too. I at once made up my mind to start right in. So I joined the garden and poultry clubs that summer. I enjoyed the work very much and also won several dollars in prizes at our county fair. Last, but not least, I received the county championship for my garden club work. That gave me the privilege of attending club week at M. A. C. last summer. I enjoyed the trip very much, and should like to go again, but I probably won't have another chance.

Last winter I belonged to a sewing club, didn't win any prizes for my work, but I can make my own clothes now, so I think it was worth while, any way.

This year my chickens have not done extra well, but I won third prize at the fair and will clear about thirty dollars on them.

Every year our club members enjoy a week's outing at Camp Birkett, the Y. M. C. A. camp at Silver Lake. This summer Miss Robb was there to help us enjoy it. Such a lively time as we have there surely takes away any desire to be a pessimist. Each summer we have a county club picnic, too, for all the members and their folks. These events are looked forward to with great anticipation, and they add much pleasure and interest to our work.

A boy can enjoy more games and sports than a girl can. There is nothing like boyhood. Don't you agree with me, Uncle Frank?—Your nephew, Garret Klinge, Lucas, Mich.

That was a joke on yourself. Boyhood is great stuff, but while I don't know much about girlhood, I imagine it has its pleasures, even though they are not as vigorous as those of the boy.

Dear Uncle Frank:

I received my membership card and button, and I surely was glad to get it. I think if everyone did what that little card tells us to do, this old world would get along much better. Some people, by misfortune or bad associates, fall off the right road and continue on that dark and uncertain way.—Your new niece, Emma Vietzke, Rapid River, Mich.

I am glad you like the precepts of the Merry Circle. We M. C.'s can do our little part to make the world better by following them.

Say, Uncle Frank:

I have a question to ask you. Do you have to be a Merry Circler before you can win a prize? My brother and I had an argument about it, so I wish you would tell us.—Elizabeth McLean, R. 1, Whittemore, Mich.

No, you do not have to be an M. C. to win a prize, but you become an M. C. when you win a prize.

Dear Uncle Frank:

I help my mother with housework lots of times. I baked a hickorynut cake today while mother did some sweeping, and I did ironing, too. Do you think it hurts boys to work in the house?—Your glad-to-be-nephew, Randall Luke, M. C., Beaverton, Mich., R. 2.

I believe it does a boy good to help his mother, for then he learns how much work a woman has to do. Some of the world's best cooks are men. I bet you do better than some girls. I would like to taste that cake.



Her Name Ought to be Merry Circle Murray; it is Mary C. Murray.

possibly can, should belong to a club. Because it's a good experience, it helps them to earn their own money, and besides, they will enjoy better living on the farm.

I am interested in the Boys' and Girls' Page. I always read the letters and stories. I was especially interested in the pictures the children drew of Uncle Frank.

What Spring Means to Me

By Prize Winners

By Mary Dick, Hillman, Michigan.

SPRING is a magic word to me. It means happiness. It banishes care, makes me feel as though there was not a care in the world.

Spring means Arbutus, arm after arm full of them, white and fragrant where they have been hiding in the shade or rosy-pink where the sun has found their faces. Then there are apple blossoms, the state flowers of Michigan, which makes spring worth looking forward to. It means vacation time, bare-foot children, bright-eyed happy-faced sunbonneted girls, a gar-

ings of the birds who have come back from the South, I catch the spirit of happiness and my heart sings in joy. In the warm south wind that caresses my cheeks I feel free and glad that I am alive.

The awakening of the little brown buds which have lain dormant all winter awakens me to my duty and I hasten to perform it. The creeks and the streams as they race on sounding like rippling laughter makes me laugh and forget to be selfish. The farm sunshine thrills me and I hurry to complete my school duties so I can bask in its warmth. The tiny green sprouts of grass on either side of the road brighten my walk to school.

The first spring beauties and May-flowers which hide shyly in some shady cove, or peep from behind some antique stump suggest purity to me and they make me feel as if I should be as pure as possible and make myself an example for other young people.

Spring brings the glorious season of baseball, and last but not least it offers an opportunity for the delightful field trips and camping parties which a group of us girls always experience and enjoy to the highest degree.

THE SPRING PRIZE WINNERS.

I WAS much pleased with the results of the spring contest, as we got some very good thoughts on spring.

The prize winners are as follows:

Fountain Pens.

Mary Dick, Hillman, Mich.
Olive McCloy, Fairgrove, Mich.

Flashlights.

Guilford Rothfuss, Norvell, Mich.
Laura Bowers, Edwardsburg, Mich.
Florence Ryder, North Branch, Mich.

Candy.

Frank R. Kaniarz, Pellston, Mich.
Ruth Roosa, Sumner, Mich., R. 2.
Ethel Notestine, Curran, Mich.
Fern M. Talbot, Rives Junction, Mich.
Helen Lemansky, R. 1, Menominee, Mich.

BOYS' AND GIRLS' CLUB WORK.

(Continued from page 571).

The Heart to be kind, true and sympathetic;

The Health to resist disease, to enjoy life and to make for efficiency.

Public Knows Its Value.

Public sentiment regarding club work has always been good, but lately it has developed into a serious attitude toward agricultural and home-making extension work for farm boys and girls. The people of the agricultural counties of the state have a deep-seated faith in this movement, as those are the counties in which a well developed club program is under way.

Moreover, adult farm folks are recognizing the ability of the club-trained farm boy and girl by granting them partnership in the farm and home enterprises. They recognize, also, that the participation of these young people in community development makes for a community pride and spirit, fundamental to a contented and prosperous rural life.

During the past year farm folks in seventy of the eighty-three counties in Michigan were actively interested in club work because organized club work was carried on in that number of counties.

County live stock breeding associations have taken the lead in offering concrete evidence of their faith in club work by granting membership in their organizations to stock club members upon the successful completion of a year's work in a live stock club project. In many, many instances the older club members now hold offices in these county associations, as well as in certain state associations.

By Olive McCloy, Fairgrove, Michigan.

THERE are so many things that spring means to me that it's difficult to tell all. In the cheerful twitter



BLOOD WILL TELL

You get better stock than you are led to expect

WOLVERINE CHICKS

Always Good - - - Easy to Raise

Improved S. C.

White Leghorns

Bred for Eggs Since 1910

ONCE A CUSTOMER, ALWAYS A CUSTOMER

Chicks from this high-grade laying strain will give you bigger profits, and absolute satisfaction. They have 13 years of careful selection and breeding direct behind them, and mature in the shortest possible time. You will be benefited by our 13 years' experience in hatching and shipping chicks, for they grow up uniform in size. They possess great vitality. Let us mail you our catalog with prices. 100 per cent safe arrival guaranteed.

WOLVERINE HATCHERY

H. P. WIERSMA, Prop.

R. 2, ZEELAND, MICHIGAN

HUBER'S RELIABLE CHICKS OUR 15th. YEAR
10000000 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. Anconas, Barred Rocks, S. C. R. I. Reds	3.75	7.50	15.00	72.50	140.00
White Rocks, R. C. B. I. Reds					
White Wyandottes	4.00	8.00	16.00	77.50	150.00
S. C. White, S. C. Buff Orpingtons	4.25	8.50	17.00	82.50	160.00
Mixed, All Breeds	2.50	5.00	10.00	50.00	100.00

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CHIX

Barron Strain White Leghorns Exclusively

The large heavy egg producers. If you want big, strong, husky CHICKS that are easy to raise, mature quickly, and have the vitality to produce the maximum quantity of eggs in the coldest weather we have the stock that you want. Why buy "CHEAP CHICKS" when you can get "THE BEST" at cheap prices? PULLETS, HENS, and COCKERELS after May 1st. Get our free Circular and Prices before you buy. We positively guarantee satisfaction. PROGRESSIVE POULTRY FARMS, 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.

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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.
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BABION'S QUALITY CHICKS

Varieties.	Postpaid Prices on	25	50	100	500	1000
Pure English White, Brown & Buff Leghorns	\$4.00	\$7.00	\$13.00	\$62.00	\$120.00	
Barred Rocks, Reds, Anconas, Minorcas	4.25	8.00	15.00	72.00	140.00	
Wh. & Buff Rocks, Wh. Wyandottes	4.50	8.50	16.00	77.50	150.00	
Sil. Wyandottes, Orpingtons	5.50	10.00	19.00	92.00	180.00	

OUR EXTRA SELECTED FLOCKS will be \$3.00 per 100 higher and Chicks from our Fancy Bank references. You cannot go wrong. Order from this ad. Thousands satisfied. Ten years' experience. Our slogan: the best chicks are cheapest, not the cheapest chicks the best. Also 8 week pullets \$1.25 up.

BABION'S FRUIT AND POULTRY FARMS, Flint, Michigan.

MEADOW BROOK One Of The Founders Of The Chick Industry

Pure-bred stock carefully developed for years. Order from this ad and get chicks just when you want them.	Prepaid prices on	50	100	500
White and Brown Leghorns	\$7.00	\$13.00	\$62.00	
Rocks, Reds, Buff Leghorns	8.00	15.00	72.00	
Wh. Wyandottes	11.00	20.00	92.00	

MIXED CHICKS (all varieties), \$10 per 100. You take no chances. Ref: First State Bank, Holland. 97 per cent live delivery guaranteed.

Wh. Leghorns headed by male birds of 285-303 egg record strain. Other breeds highly bred. Circular free.

MEADOWBROOK FARM, HOLLAND, MICH.

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.

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--CHICKS--

Investigate

Our chicks are the kind that make good. Every flock is carefully culled and mated. We have been in business seven years and have been building carefully and consistently to a place where we can offer chicks more than worth the money we ask. SINGLE COMB. ENGLISH STRAIN. WHITE LEGHORN. BARRED ROCKS. ANCONAS. 100 per cent live delivery guaranteed. Investigate our proposition before buying. A postal will bring full information. STAR HATCHERY, Box 22, Holland, Mich.

CHICKS BARRED ROCK. English Strain White Leghorns and Brown Leghorns. Guarantee full 100 per cent alive. Free Delivery. Hillview Poultry Farm & Hatchery, C. Ewen, Prop., R. 42, S. F. Holland, Mich.

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Day-old chicks from strong, vigorous flocks which have been carefully culled and extra selected standard male birds—Barred Rocks, R. I. Reds and White Leghorns. We guarantee 100 per cent safe arrival. Write us for price list and circular. BRECKENRIDGE HATCHERY, J. C. Barnes, Prop. Box 351, Breckenridge, Mich.

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Written by Your Neighbors

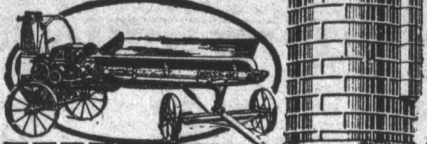
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More Wool More Profits

The Stewart One-Man Power Shearing Machine, gets 15 percent more wool than hand blades. Gets longer staple wool, bringing higher prices. Machine belts to any engine. Shears fast and easy. Does better work. Sheep like it. Any farm-hand can use it. At dealers, complete with 3 extra sets of cutting plates, only \$21.00 or send us \$2 and pay balance on arrival. Guaranteed satisfactory or money back. Get one now. If you have no engine get Stewart No. 9 (hand power) Ball-bearing Shearing Machine. There's a Stewart Shearing Machine, hand or power, to meet every need. Send for complete catalog.

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FOR sheep ticks, scab, foot rot, maggots and shear cuts.
For hog lice, skin diseases and healthful surroundings.
Provide a wallow for your hogs. Add Dr. Hess Dip occasionally. It's the handy way.
Sprinkle in the dairy barn. Keeps everything sanitary and clean-smelling.
Sprinkle or spray the poultry-house occasionally to kill the mites, lice and disease germs.
There is scarcely an animal parasite, skin disease or infection that Dr. Hess Dip and Disinfectant will not remedy.
Use it about the home wherever there is filth or a foul odor.

Standardized Guaranteed
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Ashland, Ohio

DAIRY FARMING

CLOVERLAND PRODUCES WORLD CHAMPION.

THE agricultural development workers throughout the Upper Peninsula of Michigan are smiling complacently over the world's production record recently established by Rilma of Bay Cliffs 93480, a pure-bred Guernsey from the herd of the Bay Cliffs Stock Farm, at Big Bay, Marquette county. J. B. Deutsch is proprietor of the farm and owner of the herd.

Rilma of Bay Cliffs has hung up a record of 15,684.7 pounds of milk and 821.70 pounds of butter-fat, and her average test was 5.24 per cent. The record entitles her not only to first place in Class DD, but also places her fourth in Class D. Rilma topped the former world's record in Class DD by thirty-five pounds of butter-fat.

Rilma may also toss her head with pride to a previous record in Class G of 9,348.9 pounds of milk and 490.16 pounds of butter-fat. In referring to Rilma's recent record the Guernsey Breeders' Journal of March 1 says: "An unusual coincidence is the fact that her average test on her Class G record was exactly the same as the percentage on her recently completed record."

Rilma's ancestry points to her grand-sire, Frank Rilma 21901, as the outstanding animal among her forefathers. Frank Rilma has over fifty registered daughters and over forty registered sons, while the records of a number of his daughters appear in the Advanced Register.

In further reference to Rilma's excellent record the Guernsey Breeders' Journal says: "Rilma of Bay Cliffs dropped her third calf, a strong heifer, while she was making her record. During that year she was actually under the supervision for forty-eight days, which included twenty-two semi-monthly tests, five re-tests, and check tests by representatives from Illinois, Wisconsin and Minnesota. It is such records as this that are at the present time bringing Michigan Guernsey breeders out in the foremost ranks of production."

The herd of the Bay Cliffs Farm is probably the most outstanding aggregation of pure-bred Guernseys to be found throughout the upper Michigan region. The herd numbers about thirty-five females, a number of whom are class champions in production. A new feeding and breeding barn, recently completed, and other recent improvements at Bay Cliffs has made possible the utmost precaution in caring for the prize animals in the herd. Animals from the Bay Cliffs Stock Farm have repeatedly appeared in the show ring throughout the state and nation.

STEALING THE JOY.

SOME cows steal from dairying all the joy. They keep dairy farmers on their back, increase mortgages, and finally drive farmers to a sort of slavery. It's unfortunate, pitiful, that cows of that kind are fostered by their owners.

But you will walk into many barns

and see cows like that in stalls where good cows should stand, eating hay, silage and expensive grains that was meant for real cows; and, worst of all, being milked by tired women and children for nothing—yes, sometimes for not enough to even pay the feed cost.

—A. L.

PASTURE VALUES.

THE dairyman needs a permanent source of succulence for summer feeding. Relying on blue grass pastures is often unsafe because dry spells soon burn them up. Such dry spells cause the cows to drop in milk production. Cows once down in milk are hard to get back into heavy milk flow. Cows down in milk mean lean milk checks.

Sweet clover offers an excellent pasture value to the Michigan dairyman. Sweet clover, preferably the white variety, stands up under drouth conditions, grows abundantly, and does not cause bloat. During the past two years at the M. A. C. pasture lots sweet clover proved out to be the most valuable pasture crop. Many Michigan farmers are beginning to use this excellent legume as a source of permanent and abundant pasture. D. P. Rosenberg, of Kalkaska, says that fifteen acres of sweet clover yielded him better than \$500 worth of butter-fat made by eighteen cows during the summer of 1922.

A NEW JERSEY CHAMPION FOR MICHIGAN.

THE Michigan junior two-year-old Jersey record has been exceeded after having stood for over ten years. You'll Do's Golden Rostelle 514744, who started as a junior two-year-old, produced in one year 10,607 pounds of milk and 669.38 pounds of butter-fat, is the new champion. Her owner is Samuel Odell, of Shelby, Michigan. The former state holder of the junior two-year-old championship is Corinne of Roycroft 247303, who held the record since October 30, 1912, when she produced 640.90 pounds of butter-fat.

Rostelle calved in time to be entered in the advanced class and qualified for a Silver Medal by a wide margin, the requirement for a cow of her age being 500.8 pounds of butter-fat. She was in the fifty-pound list for eight consecutive months. Her high month was her fourth month on test when she produced over seventy pounds of butter-fat.

DO BIG BUSINESS IN HOLSTEINS.

NEARLY a half million dollars of Holstein cattle have been shipped by rail from Livingston County this past year. This does not include the hundreds of good animals sent out of the county on truck, nor does it account for those traded or sold between farmers within the county. Altogether, 107 cars were shipped, 83 cars of which went to the state of New Jersey.

The production of oleo in the United States is about 20 percent of that of butter.

High Milk Producers for February

The following table points out the five highest milk producing cows in the cow testing association work in the State of Michigan for the month of February, 1924:

ASSOCIATION	OWNER	AGE	BREED	FRESH MILK	FAT
Washtenaw-Saline	W. L. Rundel	Mature	PB H.	1-26-24 2987.0	*87.2
Washtenaw-Saline	W. L. Rundel	"	PB H.	11-28-23 2651.0	*98.1
Jackson-Rives	V. Clough	"	PB H.	1-21-24 2639.0	*68.6
Genesee No. 2	A. L. Toney	"	PB H.	1-15-24 2604.2	*83.3
Washtenaw-Ann Arbor	Geiger & Son	"	PB H.	1-7-24 2474.0	*96.6

*Three times Milker

**Four times Milker



Steady Power with Plenty of Reserve

is what you need for profitable threshing. Not only when conditions are ideal, but when power is needed to meet the unexpected overloads, you will find every demand filled by the

Nichols-Shepard Oil-Gas Tractor

Steady, smooth, dependable power equal to that of the best steam engines and no stalling because of wet bundles or overfeeding.

Every user is a friend and booster. "I have one of your 20-42 Nichols-Shepard Oil-Gas Tractors with a 28-inch Red River Special Separator which I have run for three years. In all that time I have had no trouble of any kind. The Tractor runs as steady as steam."

J. E. Adam, Reynolds, N. D.

Letter after letter filled with praise from practical men are in our files.

The Nichols-Shepard Oil-Gas Tractor burns kerosene economically and is a wonderful power plant for threshing, plowing, grading, shelling, sawing or other heavy belt or traction duty.

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Builders Exclusively of Red River Special Threshers, Wind Stackers, Feeders, Steam and Oil-Gas Tractor Engines.

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Send for attractive proposition to early buyers
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Distributed by Indiana Silo & Tractor Co., Anderson, Ind.

Only \$1424

Down For
2 H.P. WITTE

(Throttling Governor)

Easy Terms on best engine built. Burns kerosene, distillate, gasoline or gas. Change power at will. Equipped with the famous WICO Magneto. Other sizes, 2 to 25 H.P., all styles. Write today for my Big Engine Book. FREE—Sent free—No obligation on your part.

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Filled 40 Silos—Never Plugged

"Filled 40 silos this fall (1922) with an L-16 Papee Cutter, second season, and never had a plugged pipe." Ernest Kahler, Clifton Springs, N. Y.

The Papee is made in four sizes to fit any power. N-13 and L-16 silos are ideal for Fordsons. Send today for our new catalog and U. S. Gov't Bulletin "Making and Feeding of Silage"—both free. Learn why a Papee soon pays for itself.

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In quality and price. I invite comparisons with any similar products manufactured anywhere, sold by anyone. My Bargains speak for themselves. My Direct-from-Factory-to-Farm Plan of selling means a saving of Millions of Dollars to my customers.

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CREAM SEPARATORS, ENGINES, MANURE SPREADERS, etc. are 5 leaders that make my challenge irresistible. I know there are no better products made. I have seen and tested them all. No price lower than mine, no terms easier. Investigate, compare, test thoroughly on my Trial Plan. Then decide whether you keep mine or the other. Write for the 50-Day Sale Bargain Circular. W. B. GALLOWAY CO. 187 Galloway, Sta. Waterloo, Iowa

FREE 1924 Catalog of Farm and Home Bargains.

DAIRY IMPROVEMENT WORK

MRS. ERICKSON TAKES THE LEAD.

WOMAN'S place may be in the home—but said woman continues to prove that it's merely a matter of choice after all. And Mrs. A. Erickson, of Iron River, Iron county, steps up to carve her name in the hall of fame for women.

Mrs. Erickson enjoys the unusual distinction—unusual for a woman—of owning a herd of pure-bred dairy cows which heads the list in butter-fat production for February among all herds in the Upper Peninsula of Michigan, which have undergone the official test, as prescribed by the Michigan Agricultural College Extension Department. The report of Mrs. Erickson's achievement is announced by J. G. Wells, Jr., dairy extension specialist for the college, and in charge of herd improvement and cow testing work throughout the Upper Peninsula.

And "that ain't all." Mrs. Erickson also owns the high-producing cow among all tested herds in the peninsula. The Erickson herd of fine grade Guernseys produced an average of 720.3 pounds of milk and 35.7 pounds of butter-fat at a cost, for feeding, of \$9.18 per cow for the month. Mrs. Erickson is gradually building up the herd, and declares that a full herd of pure-bred animals is her goal.

"Mere man" is reduced to second place, in the report submitted by Mr. Wells. John Gaswan, of Delta county, owns the high-producing herd in that district, with twenty cows in the herd. First place in Gogebic county goes to John Tassava, with fourteen cows.

Discussing the high-production record of the Erickson herd, Mr. Wells said: "An interesting point concerning this herd is that each of the cows was in milk, and in the case of the other two high-producing herds in Delta and Gogebic counties, only two cows were dry. The low average production of all the herds is due largely to the fact that such a large percentage of the cows were dry. To obtain the greatest profit from our dairy herds, it is necessary to have them freshen during the fall, and thus get the high-producing months at the time when butter-fat prices are best."

HAS REASON FOR STICKING.

BILL Schoof is president of the Macomb County Cow Testing Association No. 1. He has been in the association for three years. The first year his cows averaged 8,000 pounds of milk; the second year this average went to 10,000 pounds, and this year it will be 12,000 pounds. He blames his testing association for this big gain. Is it necessary to add that "Bill" is enthusiastic?

DOUBLES INCOME ON SAME NUMBER OF COWS.

M. R. HAEDICKE who, with Mr. Dy-singer keeps eighteen cows on their St. Clair county farm, tells us that he still keeps the same number he had for the year preceding his entry into a cow testing association. Last year before joining the association his income from these cows was \$2,000, while for the first year in the association, this income more than doubled to \$4,130.

GOES WELL WITH JERSEYS.

MILKING fourteen head of just cows from 1911 to 1920, brought George R. Sapp, of Mecosta county, an income almost large enough to enable him to break even. He then became interested in some better stock, paying \$400 for two yearling Jerseys, and \$500 for five more. These were bred

to a pure-bred Jersey bull at \$25 per service. These heifers are the foundation of his present paying herd. He sells cream. The milk from these cows tests from five to seven per cent. The cows now return him an average of \$200 over feed costs.

HE MAY HAVE GOOD BOLOGNA, BUT—

THE efficient cow tester of Macomb, No. 2 association, Casper Blumer, tells of finding four half-sisters in the herds coming under his care that showed unusual milking qualities. In fact, one of these half-sisters was high cow in his association for milk production. A little research showed that these four cows were also a half-sister through the sire to one of the record cows of the Detroit Creamery herd. In the effort to locate the sire which had passed on to these good cows record making qualities, it was learned that he was already hanging in the windows of a butcher shop in the form of bologna. It is unfortunate indeed, that this quality was not discovered earlier, and the sire saved to give dairy farmers more high producing cows.

A MICHIGAN JERSEY MAKES GREAT RECORD.

THE Jersey cow, Jacoba's Golden Melia Ann 374745, owned by C. E. George, of Union City, Michigan, has recently completed a most creditable record. She started test as a mature cow and in one year produced 12,903 pounds of milk and 767.47 pounds of butter-fat, on twice-a-day milking.

This Michigan Jersey appeared in the fifty-pound list for eight consecutive months and in the second month of her lactation period missed the ninety pounds of butter-fat smash by only three-tenths of one pound.

As a senior two-year-old she won a silver medal by producing 554.13 pounds of fat, and meeting the calving requirements. Again as a senior two-year-old she won both a gold and a silver medal by producing 730.10 pounds of butter-fat and again meeting the calving requirements. She has now one tested daughter.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

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

Failure to Breed.—What is best, to give a cow, freshened last spring, to bring her in heat? If feed, what portions? A. R., Wayne County.—Yohimbine hydrochloride is the best drug to stimulate the sexual organs of your cow, but it is too costly for cattle practice. Give one dram of fluid extract of nuxvomica at a dose in feed or in drinking water two or three times a day.

Infected Udder.—Have cow that had her first calf last March. She had trouble in one quarter, could get very little milk. She is due to freshen on February 19 again. This same quarter is hard. What had I better apply? J. C., Akron, Mich.—Rub quarter with camphorated oil twice a day and feed her less grain.

Garget.—Every now and then my cow gives gargety milk, but only one quarter is affected. C. L. K., Charlotte, Mich.—Apply one part iodine and fifteen parts lard to diseased quarter once a day.

Pup Has Worm Fits.—We have a pup six months old that has sick spells, he seems to choke, froth at the mouth, is nervous and when he recovers is blind, traveling in a circle. However, he soon gets over it and feels fine. A. E., New Baltimore, Mich.—Fast him for twelve hours, and give ten drops of oil of chenopodium in one ounce of castor oil, repeat the dose in ten days, if he is not well.

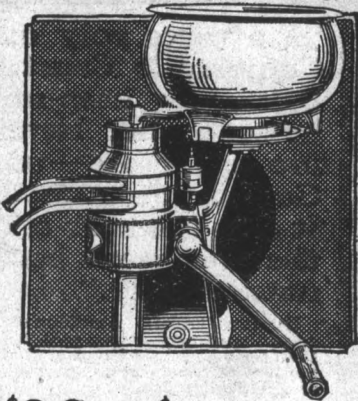
The NEW DE LAVAL Gives You More Money Every Day!

A half a pint of cream isn't much, but when you multiply this by the number of days in a year, and again multiply it by the number of years you expect to use a separator, it mounts up. This is what a user of a new De Laval recently discovered. He thought his old cream separator was doing well but he tried out a new De Laval and found he received, by its use, a half a pint of cream more each day. He figured this would amount to \$54.75 in a year's time—equal to 6% interest on \$912.00.

As a matter of fact, De Laval Separators frequently do much better than this. Recently a user of a new De Laval reported an increase in his cream check of \$10.00, after putting it to work. These are the experiences which are so pleasantly surprising the thousands of users of new De Laval.

The new De Laval is the best cream separator ever made—skims cleaner, runs easier and lasts longer. Among other new features and refinements it has a self-centering bowl which eliminates vibration, causing it to run smoother and last longer.

Ask your De Laval Agent about the new De Laval, or send coupon for full information.



\$6.60 to \$14.30 DOWN
the rest on easy monthly payments

The De Laval Separator Co., Dept. 133
New York, 165 E. W. Way, Chicago, 22 E. Madison St.
Send Separator ☐ Milk ☐ Catalog
(check which)
Name _____
Town _____
State _____
No. Cows _____

See your De Laval agent or write for free Catalog



ARE YOUR COWS Losing Their Calves From Abortion?

You Can Stop Them Yourself AT SMALL COST

Ask for FREE copy of "The Cattle Specialist," our cattle paper. Answers all questions asked during the past thirty years about abortion in cows. Also let us tell you how to get the "Practical Home Veterinarian," a Live Stock Doctor Book, without cost. Veterinary advice FREE. Write tonight. A postal will do.

Dr. David Roberts Veterinary Co., Inc., 124 Grand Ave., Waukesha, Wis.

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THE FARMERS COW
2. Of 94 cows producing 1000 lbs. butterfat or more in one year, 77 are Holsteins. As a breed they average highest in official tests for total butterfat. Holstein production insures profits. Write for Literature.
Extension Service
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ASSOCIATION OF AMERICA
230 EAST OHIO STREET, CHICAGO, ILL.

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out of Lakes or Marshes

If you want to dig 25 or 500 yds. per day we can furnish you the equipment at a price that will suit you.

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Will relieve Coughs and Colds among horses and mules with most satisfactory results. For thirty years "Spohn's" has been the standard remedy for Distemper, Influenza, Pink Eye, Catarrhal Fever, Heaves and Worms. Excellent for Distemper and Worms among dogs. Sold in two sizes at all drug stores.
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The reliable and effective remedy for:

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"I always rely on Gombault's Caustic Balsam to keep my horses sound. Never fire any more—use Gombault's instead. It does the work and the hair grows back natural color."

Used for 41 years. A million successful treatments given each year. Directions with every bottle. \$1.50 per bottle at druggists or direct upon receipt of price.

ALSO GOOD FOR HUMAN USE
An excellent remedy for sprains, bruises, cuts, burns, sore throat, muscular and inflammatory rheumatism, sciatica and lumbago. The Lawrence-Williams Company, Cleveland, Ohio.

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Caustic
BALSAM

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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, Ohio, Mich.

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

Reg. Guernseys Two Nice Bulls, nearly ready for service. Special terms if desired.
J. M. Williams, North Adams, Mich.

Guernseys 2 cows fresh, 3 heifers, 3 bull calves. Dr. Baker, 4800 Fort St. West, Detroit, Mich.

GUERNSEYS Reg. heifers for sale, also two young cows. Quality, right prices. W. W. Burdick, Williamston, Mich.

LAKEFIELD FARM
Owners of Michigan's Grand Champion Holstein Bull, Count Veeman
Segis Piebe No. 336,756.
Offer For Sale

A Son of this Grand Champion, ready for service from a 23-lb. four-year-old dam.
Also a young son of "Count" born December, 1923, from a well-bred dam.

Special Offering

Three sons of Dutchland Konigen from two-year-old daughters of King Segis Pontiac Konigen and Dutchland Creamelle Korndyke Ladd. These dams were purchased by us as foundation heifers and have made two-year-old records from 20 to 23 lbs., and will be developed by us. All of these should make thirty-pound cows in a year or two.
Any reader of Holstein journals knows the wonderful breeding of Dutchland Konigen and the wonderful records being made at Dutchland Farms.
Any one of these young bull calves will do some Michigan breeder a world of good, and the prices are low, probably only a fraction of what Dutchland Farms would be able to get for the same animals.
Write OSCAR WEBBER, The J. L. Hudson Co., Detroit, Michigan.

Michigan State Herds

Offer --

A yearling son of Reformatory Burdondale, a 26-lb. Junior-four-year-old just finishing a record above 900 lbs. of butter and 20,000 lbs. milk in 365 days.
This bull combines the blood of three famous sires, King of the Pontiacs, Sir Veeman Hengerveld, and King Korndyke Sadie Vale.

Sent for pedigree of Ear Tag No-313

BUREAU OF ANIMAL INDUSTRY
Department C. Lansing, Michigan

SEVEN registered Holstein heifer calves for sale. **ERWIN** ZWINK, Fowlerville, Mich.

HEREFORDS

Bulls, Heifers and Cows with Calves by side. Most popular strains. Allen Bros., 616 S. Westnedge St., Kalamazoo, Mich.



YOUNG HORSES SCARCE.

IF it is true that history repeats itself, then the time has arrived for horse men to go back to raising colts. What, you say, go to raising colts when they are not selling at a year old for much more than enough to pay the service fee? Yes, that is exactly what I mean.

We, all of us, are too much inclined to base our calculations upon conditions as they exist at the present moment. It is human nature to see things as they are, not as they were five years ago, nor as they are apt to be five years hence. It is easier to visualize the present and but natural to follow the path of least resistance.

As a matter of fact, however, the world does not stand still at all. Things are going or coming all the time. Times are either getting better or worse. The trend of the horse market is either up or down, and the



Good Strong Colts Like This Are Very Few.

cause of it is this human trait of looking only at the present. When horses are cheap we quit raising them, and in five to eight years there is a scarcity. Then they go up in price and we go to raising them again, the higher they go the more we raise, and by the time they are ready for market there is an over-supply and we have to sell them cheap. We lay the blame onto the buyer, or to Wall Street, or the political party in power, but, the fact is, it is our own short-sighted policy that is at fault.

I am basing my calculations, only upon observation and general information, but, I am sure I am safe in saying that there have been fewer colts raised in the last three years than in one year a decade or so ago. The country is full of old horses that will be gone to the happy hunting grounds in five to ten years, and where are the horses coming from that must take their places? Tractors and trucks, you say. Yes, to a certain degree, but the economy and the necessity of the situation require that mechanical power can best supplement, not replace, draft horse power.

A tractor just passed along the road in front of my house while I have been writing this. I could not help but note that a good draft team was hooked on ahead to help it through the snow drifts.—Pope.

DOCKED LAMBS BRING BETTER PRICES.

WHILE in some Oriental countries the tail of the sheep is a most important asset, this is not true in America. In fact, tailless lambs bring better prices on our markets than do those with this appendage intact.

Most farmers are obliged to dock and castrate the lambs themselves. Often much trouble comes from not knowing all the necessary precautions to take, or, what is more common, many farmers keep putting the job off until it is too late. No doubt, it will be interesting to those who are obliged to perform this work to study the methods followed by an expert.

Frank Kleinheinz, the popular judge of sheep at the Michigan State Fair,

and in charge of the Wisconsin University flocks, has the following to say about the above topic:

"When the lambs are from one to two weeks old they ought to be castrated," says Kleinheinz. Here are his directions: "Select a nice bright day. Have the lambs on clean dry bedding, or if on pasture, have them on clean dry grass. Have some warm water containing a disinfectant. Wash your hands clean. Have a sharp pocket knife, dip both hands and knife in this solution. It is also well when there are a number of lambs to be castrated to sort them out from the flock. Have a man catching a lamb hold it up against his chest with its four legs together. The operator takes hold of the scrotum and cuts off one-third of the lower end. The testicles, now being exposed, are pulled out slowly, one at a time. After this, drop some of the disinfectant into the holes and put the lamb with its mother.

"A week after the buck lambs have been castrated and are almost healed, all lambs, ewes, and wethers should be docked. In the country this work is done mostly with a chisel and block. A sharp knife is also used. The regular docking pinchers, however, are highly recommended, as their use prevents loss of blood to the lamb. They should be heated till they are red hot. In warm weather when flies are troublesome, pine tar should be put on the stub of the tail to prevent maggots. This is the whole operation and can be performed by anybody exercising a little care."

GIVE THE PIGS SUCCULENT FEED.

I AM now thinking of the spring pigs. What are they going to eat this summer? The problem is not a difficult one, if I attend to it now when I should. There will probably be twenty-five or thirty of the little fellows, if we have reasonably good luck. I shall sow two acres of rape, an acre in each of two plots. One of these plots will be ready before the hot days are here, while the other will be in first rate condition when the first has been consumed. I then can reseed the first to be sufficiently grown for the porkers for late pasture.—F. Granny.

GROOMING THE HORSE.

THE best time for grooming is at the close of the day's work, unless the work has been exhaustive and the animal is very tired; in this case it should be allowed to rest first. By giving the animal a thorough grooming at night, it will need but a light grooming in the morning, simply to remove the dirt and produce a cleanly appearance.

The horse should be cool and dry. Begin grooming at the left side of the neck, immediately behind the left ear, thoroughly brushing out the coat, moving the brush in the direction that the hair lies; if dirt is excessive and sticks rather close, it may be necessary to move the brush in a circular direction.

To use the brush to the best advantage, it is advisable to stand at some distance from the horse, about arms' length, and holding the arm fairly rigid, lean a portion of the body right against the brush, thus forcing it through the hair. The brush should not be brought down with too much force upon those animals which have a tender skin. If the operator stands too close to the animal, and with his arm bent, he is not as apt to remove the dirt so effectively, since the bristles do not penetrate the coat.

After the one side is completed, the other side is groomed in the same



Brookwater Jerseys

Bull calves for sale. Majesty breeding. Herd tuberculosis free. Come or write. Brookwater Farm, Ann Arbor, Mich.

FOR SALE

Ten head registered Jersey females, all ages. Herd of fifty to pick from. Sophie Tormentor Breeding. Grandson of "Sophie 19th of Hood Farm" head of herd. A. H. Donaldson, Fenton, Mich.

FOR SALE Jersey bulls ready for service. 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. Lake Odessa, Mich.
J. L. CARTER.

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

Irvin Doan & Sons, Mich. Aug. 2, 1923. Sire, Countryman's King (by Glenside Dairy King out of Bessie Thorndale, 3rd, 12,754 lbs.) weight 2,400 lbs. Dam Glenside Sunbeam, 9,500 lbs., by General Clay. Price \$200. Light roan bull calved Sept. 20, 1923. Sire, Fremont Roam Clay, by Glenside Roam Clay. Dam, Miss Gloria Morn, by Glenside Bell Boy out of a daughter of General Clay. Price \$150.

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 accredited herd bred for beef and milk. Headed by King Sales, grandson of Glenside Dairy King. Fresh cows and heifers priced reasonably. Visitors 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.

For Sale 2 Shorthorn Bulls 9 and 10 months old, also cows & heifers. Priced reasonable. Matthew Sprawl & Sons, Crosswell, Mich.

FOR SALE Herd of milking shorthorns, 3 cows, calves by side, 3 coming fresh, 2 yearling heifers, and herd bull. Price right. E. H. KURTZ, Mason, Mich.

SHORTHORNS 3 Bulls, one ready for service. Two 8 months. Write for Prices. BARR & CURTISS, R. No. 2, Bay City, 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 economical way to get into thoroughbred stock.
Every pig guaranteed satisfactory to you when you have received it. Send for photos, description and breed.
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We pay express charges to your station

Never before have we been able to offer such Great Bargains in Duroc-Jersey hogs, any age or sex. This is the home of TOPMAST SENSATION, premier sire of the state. Write us your wants.

LOEB FARMS

Virgil Davis, Supt. Swine
Charlevoix, I. Michigan

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.

FOR SALE Duroc Jersey Fall Boars of the Heavy-boned, low-down type.
Chas. A. Bray, Okemos, (Ingham Co.), Mich.

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

Duroc Jerseys Extra choice bred gilts at reasonable prices.
CAREY U. EDMONDS, Hastings, Mich.

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

O. I. C.'s 15 last spring gilts due to farrow in April and May. Wt. 250 to 375. Also this spring's pigs. 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. Sired by "Giant Boy," Senior Champion at West. Mich. State Fair, 1923. Milo H. Peterson, R. 2, Ionia, Mich. "Elmhurst Farm."

O. I. C.'s—A few choice service Boars and spring pigs either sex.
CLOVER LEAF STK. FARM, Monroe, Mich.

L. T. P. C. Bred gilts. Fall pigs, either sex. Brown Swiss Bull, Calved 4-29-23. A. A. Feldkamp, Manchester, Mich.

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

Hampshire Bred gilts, spring and fall boars, at bargain prices. 12th year. Write your wants. John W. Snyder, R. 4, St. Johns, Mich.

manner, starting at the same place on the neck. The legs can be groomed at the same time the sides are groomed, or they may be finished after.

At this stage of the grooming, if you desire to do a good job, turn the animal around in the stall to clean the face, eyes and nostrils. It is much more convenient and you can do a much better job of it as the manger is in your way if you do this part of

the grooming with the animal standing naturally. The animal is again turned in the stall and the mane and tail brushed out, and the animal is given the final polish with the rubber.

Use a soft brush or a rubber for cleaning the head; a dry water brush is as good as anything you can use. Do not knock the skin or the body projections on the head and legs while grooming them.—G. H. C.

Good Michigan Wool is Worth 50c per Pound

THE last London wool auction showed an advance of five per cent over the previous sales. Bankrupt Germany seems somehow able to get financed to make heavy purchases of Merino wool.

Up to April 1, there have been contracted in the west close to 15,000,000 pounds of wool at forty to forty-two cents. With some few exceptions, this wool is not in the same class with Michigan's product. It is not as bright nor as strong, and has a much heavier shrink, besides the increased freight rate to the mills in the east. Based on these conditions, the Michigan grower can look the dealer squarely in the eye and say, "Fifty cents is the value of my wool."

After making deductions for carpet wool, of which practically none is produced here, the actual consumption of wool in the United States in 1923 was 773,000,000 pounds, of which 194,000,000 pounds were imported and 23,500,000 pounds of our wool was exported, as against only 4,000,000 pounds in 1922. In 1922, we used 312,000,000 pounds of domestic wool. Analyzing these figures and foreign prices being comparatively higher in 1924 than they were in 1923, with an export of between eight and nine per cent last year, one can co-ordinate supply of wool with demand and have all the facts on the side of a fifty-cent wool price. Last year there was still on hand a large quantity of surplus wool of the British-Australian Wool Association. This has now been practically absorbed, so that this is not an item of further consideration.

Boston stocks of wool are down to 50,000,000 pounds, and mills are running from hand to mouth. The demand for wool is not over strong, and the large wool merchants are piecing these two facts together. Mills are in the immediate demand, and if they can secure the supply while the mills are awaiting an advance in goods prices, they will reap the increase in wool values.

One Yiddish wool house circular ambiguously describes the wool market as "Statu Quo," which reminds one of the famous stories of Col. Woods, the auctioneer. A negro preacher's sermon fairly bristled with big words, and he urged the congregation to join his church or they would become "Statu Quo." One of his congregation congratulated him on the excellence of his sermon, and inquired just what "Statu Quo" meant. The answer was that this was Latin and meant "Hell of a fix." The bear advices on the wool situation are quite as correct as the colored man's impromptu explanation of what he did not understand. The Michigan wool clip is not "Statu Quo," but is worth fifty cents per pound.

Wool is among the few commodities that bears a reasonable relation of price to the general commodity price farmers have to pay. The present effort to beat the price down should be resisted to the uttermost, not only as an individual wool grower, but as a general proposition.

There is an occasional dissenting voice in opposition to the sheep man's product, who has forgotten the lean years following the close of the war when the sheep owners were driven to bankruptcy and their flocks sent

to the shambles. Now when wool prices on last year's basis are objected to as one wool handling organization report reads, "Dealers were not justified in paying fifty cents straight in 1923," one can well reflect that wool was worth the price abroad, and that the limitation of demand, not the real demand, is now the basis for price concessions.

A family was once viewing a great artist's masterpiece of the Roman Arena showing the early martyrs being destroyed by hunger-enraged lions. The child pointed with regret to one little lion for whom no Christian had been provided. The fear that the wool grower might get too much for his wool is likewise sympathy misplaced. Michigan wool growers can safely say, "Our wool is worth fifty cents," and sleep soundly with a clear conscience.—J. N. McBride.

KILLED BY QUIET BULL.

YOUNG Henry Sotham, son of F. F. B. Sotham, of Hereford fame, has passed on. While working among the cattle in the yards at their Herefordia Farms at St. Clair recently, he was attacked by one of their supposedly very quiet bulls. The charge came without warning, and is supposed to have started in play. The animal was easily driven away by the mother who heard the fracas and came to the rescue but not until some rather serious wounds had been inflicted, mostly to the limbs. Under skilled medical attendance encouraging progress was being made toward recovery, when a blood clot entered the circulation and finished the work the bull had so well started.

Though many decades of work with Hereford cattle, and experience in handling hundreds of bulls, this is the first time for such an experience in the Sotham family, and strange as it may seem, the bull that did the damage was the pride of the older folks and the pet of the children. It proves again that a bull is a bull. His nature is to fight, and no matter how quiet his disposition, or how tame he may appear, that element in his nature is prone to assert itself and may do so at the least expected moment.

Henry Sotham was a vigorous and active gentleman of the high type that has developed along with the line stock industry of this country. He had just grown to manhood and his passing marks the untimely end of a career that promised much for the cause and the progress of pure bred line stock.

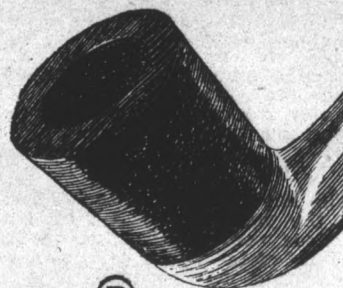
There is room in the United State for doubling the wool production without seriously disturbing any industry. The drop in wool production occasioned by the slump in prices following the war, has to be paid for now, because sheep by the million went to the shambles and owners went bankrupt. With our lessened wool production and our increased population, there looks like a period of nakedness. It appears certain that the question of clothing will become a national problem.

Says Sam: Excuses accuse the excuser.

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—for a cool,
clean smoke

The removable bowl makes it the easiest pipe in the world to clean and keep clean.

Its natural beauty, of amber-colored Bakelite, makes it the best looking pipe you have ever owned.

Select one that you want from a full line of Bakelite Socket Pipes, made by leading Pipe Manufacturers.

At your tobacco dealers!



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Kalamazoo Ensilage Cutters

"The World's Standard"
Center-shear cut means better ensilage, smoother running, less power, no clogging of blower. One lever starts, stops and reverses. **Big capacity.** Perfectly balanced. Malleable, unbreakable knife wheel insures absolute safety and makes **fast cutting** practical. Three sizes to meet every farmer's need. Special Terms to Early buyers.
KALAMAZOO TANK & SILO CO.
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Own your own cutter this year—don't depend upon somebody else to cut your ensilage. Every cutter will work over-time this year. Play safe—order yours now. Write today for catalog.

Berrien County Guernsey Breeders' Ass'n.

Fourth Annual Consignment Sale!

Eau Claire, Michigan. May 6, 1924

12 miles N. of Niles, Mich., 15 miles S. of Benton Harbor, Mich.

40 Purebreds and Grades 40

Many young females of Excellent Type and Breeding
Several fine young bulls

For catalogues address

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SODUS, MICHIGAN

PUBLIC AUCTION

TUESDAY, APRIL 22

2 Miles Southeast of Dowagiac, Mich.
31 Head Accredited Reg. Holsteins

In this sale is the Herd of Walter Dillman that has been high Herd in Cass Co. Cow Testing Assn., Jan., Feb. and March, and which stood 9th high in the state in Jan., and 5th in Feb., and averaged 63.5 in March. These cows are bred to King Johanna Segis Konigen 263379, whose sire is from Lady Netherland Pontiac, 43,59 lbs. butter in 7 days at four years old, a World's Record. His dam made 29.66 at 5 years old. This Bull will also be sold with 10 other Cows and Heifers and 6 young Bulls.

Walter Dillman & Harry Gephard
Prop.

SHEEP

Breeding Ewes with lamb, in car lots at prices wool and lambs will much more than pay for them in 5 or 6 mos. Must move quickly. First come, first served. Don't ask for description unless you mean business. Geo. M. Wilber, Marysville, Ohio.

POULTRY

Highest Quality Chicks Can ship at once. Heavy broiler chicks 12c; Barred Rocks or Reds 15c; Anconas 14c; Black Minorcas, 15c; White, Brown or Buff Leghorns, 12c; White Rocks 15c; White or Silver Wyandottes, Buff Orpingtons, 16c. May Chix 1/2c less each. Extra selected chicks, built directly from contest winners, 4c per chick more. Add 30c if less than 100 wanted. Hatching eggs. Catalog. Good reference. Beckman Hatchery, T.M.F., 26 Lyon St., Grand Rapids, Mich.

How To Save Chicks From White Diarrhea

Thos. Southard, poultry raiser of 40 years' experience and well-known poultry show judge, will send free, full directions and materials for making a simple home solution that prevents white diarrhea and actually raises 98 per cent of every hatch. No cost, no obligation—just send name to Mr. Southard at 93 W. 13th St., Kansas City, Mo.

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Baby Chicks and Eggs. Grade A stock produced by us on our own farm. Rocks, Reds, and Wyandottes, \$18.00 C. Common \$16.00 C. Leghorns \$15.00 C. Common \$12.00 C. Guaranteed 100% live delivery. Vigorous and true to name. Get the best. Custom hatching our specialty.
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Our own breeding flock of large type American White Leghorns. Laying and standard qualities combined. 13 years' experience in breeding, hatching and marketing. Also high quality Barred Rocks and R. I. Reds. All flocks culled and inspected. Modern hatching plant. 2 hatches weekly. Quality chicks at commercial prices. Write for prices and circular.

DEAN Egg Farm & Hatchery, Big Beaver. Mail address Birmingham, Mich., R. 4.

MICHIGAN FARMER
Classified Ads. pay well.
Try one.



THE LATEST MARKET REPORTS



GRAIN QUOTATIONS

Monday, April 14.
Wheat.

Detroit.—No. 1 red \$1.11; No. 2 red \$1.10; No. 3 red \$1.07; No. 2 white \$1.11; No. 2 mixed \$1.10.
Chicago.—May at \$1.10%; July at \$1.03½@1.03%; September \$1.04%.
Toledo.—Cash \$1.08½@1.09½.

Corn.

Detroit.—Cash No. 3 yellow at 84c; No. 4 yellow 81c; No. 5, 75@77c; No. 6, 72@74c.
Chicago.—May at 77½c; July 78½c; September 78c.

Oats.

Detroit.—Cash No. 2 white 54½c; No. 2, 52½c.
Chicago.—May 46½c; July at 44c; September 40c.

Rye.

Detroit.—Cash No. 2, 70c.
Chicago.—May 65½c; July at 67c; September 68½c.
Toledo.—67½.

Barley.

Barley, malting 84c; feeding 78c.

Buckwheat.

Buckwheat.—New milling at \$2.15 per cwt.

Beans.

Detroit.—Immediate and prompt shipment \$4.45@4.50 per cwt.
Chicago.—Navy \$5.25; red kidneys \$7.35.

New York.—Choice pea \$5.50; red kidneys \$7.35@7.50.

Seeds.

Detroit.—Prime red clover cash at \$11.20; alsike \$8.90; timothy \$3.75.

Hay.

Strong.—No. 1 timothy \$23.50@24; standard and light mixed \$22.50@23; No. 2 timothy \$21@22; No. 1 clover at \$21@22; No. 1 clover mixed \$21@22; wheat and oat straw \$12.50@13; rye straw \$14@14.50.

Feeds.

Bran \$28; standard middlings \$28; fine do \$30; cracked corn \$35; coarse cornmeal \$34; chop \$30 per ton in 100-lb. sacks.

Apples.

Chicago.—Barrels, "A" grade Greenings \$5; Jonathans \$5.50@5; Spies at \$5.50@6; Baldwins at \$4.50@5; Steele Red \$4@4.50.

WHEAT

Wheat future prices in all the markets closed the week on Friday practically unchanged from those of the previous week. The government report which showed the condition of winter wheat to be about 83 per cent of normal apparently had but little effect upon the market as it was about what was expected by the trade. This condition would indicate a crop of a little less than 550,000,000 bushels, assuming that the average abandonment occurs this year and that the average weather conditions prevail until harvest. The condition in the hard winter wheat states was reported as estimated to be the best in several years and the soft spring wheat states are said to be especially good while the condition in spring wheat seeding is going forward rapidly. Cash prices were well maintained but there was no indication that the increased tariff was being reflected in the cash market prices. Wheat prices in the United States are still above an export basis and exports, except from the Pacific Coast, were of very small volume.

CORN

While corn receipts were not large the demand was only moderate. Offerings were fairly well absorbed in most markets but there was a weaker tone in the market and prices declined slightly at some of the markets. At others, however, prices advanced slightly because of more active inquiry for the light receipts. Feeders were buying corn rather sparingly and the shipping demand was not large. No material increase in the movement is expected until after farmers have completed their spring work. Stocks in commercial channels are not large but more competition in the foreign markets is expected as the Argentine shipments increase. Farm consumption continues of fair volume and corn products industries are taking good amounts.

OATS

The oats market continued steady. There was a good demand for good grades of oats at practically all markets. Stocks at Minneapolis were reduced 480,000 bushels and stocks in all the markets are materially below those at the corresponding time last year. Seeding is about completed in the central west after considerable delay by wet and cold weather.

RYE

The rye market continued inactive. Prices were about unchanged from those of the previous week. Receipts were light. Industries and shippers were active buyers at Milwaukee but the demand was less active at Minneapolis. The best grades of malting barley were in good demand, both at Minneapolis and Milwaukee and choice Wisconsin grain sold at the highest price on the crop at the latter market during the week.

HAY

The hay market continued firm during the week of April 7-12, but the firmness was caused principally by the scarcity of the better grades of hay at the various markets, according to the United States Department of Agriculture. There was an active demand for the best grades of timothy at practically all markets, but as is usual at this time of the year, only a small percentage of the arrivals were of this character of hay. The poorer grades continued rather dull and in most instances could only be sold at rather wide discounts under the better grades. The approach of warmer weather and the nearness of the pasturage season was principally responsible for the light demand for the hay usually known as feeding hay and which is used to carry stock through the winter.

SEEDS

Seed markets have been rather slow during the last ten days. High prices and weather not altogether favorable for spring seeding were responsible. The demand for red clover remains more or less disappointing and buying is expected to taper off rapidly in the next two weeks. Demand for alsike, sweet clover and alfalfa seed has been better than for red clover. Timothy seed prices show but little change, although the tone is easy.

FEEDS

Feed markets are irregular as northwestern milling centers are asking slightly higher prices for wheat feeds, while eastern markets are still depressed by Canadian feeds offered at about \$1 per ton lower than domestic mill prices. No change in the corn feeds or oil meals is reported.

POULTRY AND EGGS

Fresh egg prices advanced slightly last week in response to the heavier demand in anticipation of large requirements for Easter and the Jewish Passover which occur April 10-20. Receipts were much heavier than in the preceding week or corresponding week last year. With the prospect in view of progressively increasing receipts for the next two or three weeks at least, there is doubt as to whether the present quotations can be maintained after the holiday demand has been satisfied. Eggs are not moving into stor-

age at the same rate as at this time last year as most operators are proceeding very cautiously.

Chicago.—Eggs, miscellaneous 21@21½c; dirties 20c; checks 20c; fresh firsts 22@22½c; ordinary firsts 20½@21c. Live poultry, hens at 25½c; springers 29c; roosters 18c; ducks at 28c; geese 16c; turkeys 22c.

Detroit.—Eggs, fresh candled and graded at 22½@23½c. Live poultry, heavy springers 28@30c; light springers 23@24c; heavy hens 27@28c; light hens 23@24c; roosters 16@17c; geese 18c; ducks 34@35c; turkeys 28@30c.

BUTTER

Butter prices declined steadily last week until they reached a new low for the season. A slowly increasing production from week to week as indicated by a considerable increase in receipts at the four leading markets over the previous week, a surplus in storage stocks as compared with the corresponding period last year, and weak foreign markets contributed to the weakness of the market. Toward the close prices strengthened slightly under a more active demand, but it was generally believed that the decline had been only temporarily checked. However, the market is at the level recently considered the price to prevail during the storing season so that any further declines may be slight. Arrivals of foreign butter during the week included 200 casks of Holland, 6,700 boxes of Argentine and 13,937 boxes of New Zealand butter.

Prices on 92-score fresh butter were as follows: Chicago 37c; New York 38½c. In Detroit fresh creamery in tubs sells for 37@38c.

WOOL

Mills are picking up small lots of wool at the seaboard, although the demand for finished goods remains slow. Sales for re-export continue. Prices are steady at the small decline noted on less desirable lots a week ago. Holders of choice wools in most cases are not disposed to let go as prices at country points do not permit replacement without a loss. Contracting in the west is quiet, with growers firm as to prices asked. Primary markets abroad are at the end of the season.

BEANS

Bean prices are lower, with C. H. P. whites at \$4.60 per 100 pounds f. o. b. Michigan. This is the lowest in a long while. A lot of buying orders from wholesalers and canners are pegged at \$4.50, but shippers are not reducing their offers to that basis, so that the tone is steady. How the situation will work out through the rest of the crop year is uncertain, but reports of fairly large holdings still back are persistent.

POTATOES

Carlot shipments of potatoes are gradually falling off from week to week and are about 20 per cent lighter

than a year ago at this season. The prices were steady to slightly higher last week, with U. S. No. 1 Northern round whites quoted at \$1.30@1.50 per 100 pounds sacked in Chicago, and New York round whites at \$1.65@1.90 in eastern cities. In spite of the reported lateness of the season, shipments of new potatoes are now running ahead of last year and prices upon new stock are declining. New potatoes comprise only about two per cent of the total carlot movement.

APPLES

The apple market was fairly steady last week, with A-2¼-inch New York Baldwins quoted at \$3.25@4.50 per barrel in eastern wholesale markets. Michigan Northern Spies are bringing \$5@5.50 per barrel; Greenings \$4.50@5; Baldwins \$4@4.50; Illinois Ben Davis \$3@3.50 in Chicago.

DETROIT CITY MARKET

Saturday morning's market was well supplied with produce, and liberal buying made the market quite active. The demand for the moderate supply of rhubarb was good, and the supply of No. 1 stuff was cleaned up easily. The call for potatoes was a little weaker and most sales were at 85c a bushel. Apples were moderate sellers. Carrots, beets, cabbage and parsnips had moderate sale at prices a little lower. Lettuce and radishes were in strong demand, and higher prices prevailed. The modest supply of poultry found quick sale with prices holding steady. The movement of eggs was heavier as consumers bought more. Saturday's prices were: Apples, fancy \$2@2.50 bu; No. 1, \$1.25@1.75 bu; beets, round \$1@1.25 bu; long \$1@1.50 bu; cabbage \$1@1.25 bu; carrots \$1.25@1.50 bu; parsnips \$1@1.50 bu; potatoes 80@90c bu; rhubarb, No. 1 65@70c per dozen bunches; No. 2, 50@60c dozen bunches; eggs, wholesale 25@26c a dozen; retail 25@30c; live hens, wholesale at 27@29c lb; retail 30@32c lb; dressed veal 16c lb.

GRAND RAPIDS

Holy week, or the week before Easter, strengthened the demand for eggs, poultry, greenhouse products, southern vegetables and lambs in Grand Rapids, causing prices on some of these articles to advance slightly. Hothouse radishes, after touching 50 cents last week, rebounded to 75 cents this week, and hothouse leaf lettuce established a new high record for the season at 10@20c a pound. Eggs were firm at 20@21c a dozen, with some stores paying one to two cents a dozen more. Fat fowls were in demand at 24@26c a pound. Yearling lambs were firm at 28@29c a pound dressed, and spring lambs were quoted at 40c a pound. Parsnips were scarce at \$1.75 a bushel and potatoes were in better demand at 50@60c a bushel.

BROOD SOWS DECREASE.

The estimated number of brood sows on farms in the United States on April 1, was 11,751,000, or 89.2 per cent of the number on the same date last year, according to the Department of Agriculture.

COMING LIVE STOCK SALES.

Guernseys.

May 6.—Berrien County Guernsey Breeders' Association, Eau Claire, Mich. Earl Hemingway, Secretary, Sodus.

HEAVY STEERS IN SHARP RISE.

Cattle prices continued their upward trend during the past week. The receipts at leading markets have diminished 15 per cent in the last three weeks. In addition, the proportion of well-finished steers, especially those with weight, is smaller than a month ago, instead of increasing as is customary at this season. In the five weeks ending April 5, the number of prime and choice steers reaching Chicago was one-third less than a year ago. Because of these deficiencies in the supply, most matured steers are selling \$1 higher than two weeks ago, with the bulk at \$9.50@11.50 at Chicago. The week's top was \$12.40 for steers not in prime finish bought by the feeder less than four months ago at \$7.25. Lightweight steers and yearlings have been gaining ground, but less rapidly than heavy steers, bulk selling now at \$8.50@11. Quality considered, prices in some cases are higher than at the peak last September.

Live Stock Market Service

Monday, April 14.

DETROIT

Cattle.

Receipts 1,143. Heavy steers 25c lower and slow; all others steady. Good to choice yearlings \$9.00@10.00. Best heavy steers 8.25@8.75. Handyweight butchers 7.50@8.50. Mixed steers and heifers 7.25@8.00. Handy light butchers 6.75@7.25. Light butchers 6.25@6.75. Best cows 5.50@7.00. Butcher cows 4.50@5.50. Cutters 3.50@4.50. Canners 2.50@3.50. Choice bulls 5.00@6.00. Bologna bulls 4.50@5.25. Stock bulls 4.00@4.50. Feeders 6.00@7.00. Stockers 5.25@6.50. Milkers 45@95.

Veal Calves.

Receipts 1,048. Market active. Best 13.50@14.00. Others 6.00@13.00.

Sheep and Lambs.

Receipts 1,600. Market active. Best lambs 14.50@14.75. Fair 13.00@14.00. Light to common 8.00@9.00. Fair to good 9.00@10.00. Clipped lambs 13.75@14.25. Culls and common 3.00@5.00.

Fair to good sheep 9.00@10.00. Woolled lambs 16.50@16.75. Spring lambs 17.00@20.00.

Hogs.

Receipts 3,129. Market active. Mixed and heavies \$7.80. Pigs 6.75. Roughs 6.25. Yorkers 7.40@7.80.

CHICAGO

Hogs.

Receipts 56,000. Market steady to strong, mostly steady. Big packers are bidding 10c lower. Bulk good 150 to 225-lb. average \$7.45@7.60; tops at \$7.55; better grades 140 to 150-lb. average largely \$7@7.40; bulk packing sows \$6.85@7; killing pigs are steady. Bulk strong weight \$6.25@6.50.

Cattle.

Receipts 22,000. Market beef steers and fat she stock uneven. Generally weak to 25c lower. Feeders medium decline; choice weighty steers steady; early top matured steers \$12.35; some held higher; bulk feeding steers \$8.50@11; vealers 50c lower; plain light showing most decline; vealers \$8@9.

Sheep and Lambs.

Receipts 16,000. Market very slow; practically no early business; fat lambs 25@50c lower. Few odd lots of fat woolled ewes \$12; weak to 25c lower.

CONFLICT BETWEEN TWO GOVERNMENT DEPARTMENTS.

THE encroachments of the department of commerce upon the field of the department of agriculture was made the subject of a discussion in congress, led by Representative L. J. Dickinson, of Iowa.

About ninety per cent of the nine per cent of information originating with the commercial attaches of the department of commerce is of no use to the department of agriculture, because it has already been obtained from other sources and is stale when it reaches the bureau of agricultural economics, according to Mr. Dickinson. Yet evidence at hearings shows that the department of commerce is seeking to force the department of agriculture out of the foreign field.

The overlapping of the department of commerce on the field of the department of agriculture began in 1921 when the bureau of foreign and domestic commerce asked for \$250,000 to establish industrial divisions. This has led to the organization in the department of commerce of a foodstuffs division, a textile division and other divisions going directly into the agricultural field.

The Veal Season Is Here

For Quicker Returns, Better Prices, ship YOUR DRESSED Calves to the Largest EXCLUSIVE DEALER in Detroit Market. Tags sent on request. Established 1895.

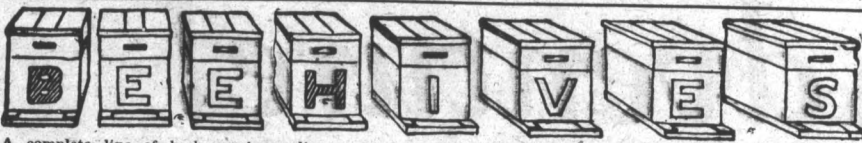
Otto F. Bernstein

2478 Riopelle St. Detroit, Mich.
REFERENCES: Mich. Live Stock Exch., or YOUR BANK.

Ship Your Cattle, Hogs and Sheep to

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Union Stock Yards, Toledo, Ohio. For Top Prices. Big Fills—Quick Returns. Correspondence solicited.



A complete line of beekeepers' supplies ready for prompt shipment. Winter problem solved by the Inner Over Coat Hive. Send for 32-page illustrated catalogue, free.
A. G. WOODMAN CO., Dept. M. F. GRAND RAPIDS, MICH.

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

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

\$500 SECURES 70 Acre Farm. All Level Dark Tillage. Fenced. Good Orchard. 3 MI. Town. Ideal Farming Section. All city conveniences. Good House. Large Barn. Granary, etc. If Taken Immediately owner includes good cow, 25 chickens. Low Price. \$1,900. \$500 Cash. Bal. Easy. Catalogue Free. Oatman's Farm Agency, Cadillac, Mich.

FOR SALE—Farm 160 Acres 1 1/2 miles from Onaway, Mich. on State Pike. 125 acres cultivated, some timber. 2 1/2 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 day beam land, nice orchard, terms, for price of buildings. M. E. Dewey, 23 Third St., Pontiac, Mich.

FARMS WANTED—We have buyers for Michigan farms. Give description and lowest cash price. Warren McInnes Farm Agency, Loganport, Ind.

FOR SALE—320-acre farm, partially improved, in Isabella County. Will sell or trade for income-paying property. Brian P. Hall, Belding, Mich.

GOOD LAKE FARM—cheap, in Oakland County. Box 96, Michigan Farmer.

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 \$5.00. First class plants and safe arrival guaranteed. P. D. Fullwood, Tipton, Ga.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912.

OF THE MICHIGAN FARMER, published weekly at Detroit, Michigan, for April 1, 1924.

State of Michigan, ss.
County of Wayne, ss.

Before me, a Notary Public, in and for the State and County aforesaid, personally appeared I. R. Waterbury, who, having been duly sworn according to law, deposes and says that he is the Manager of THE MICHIGAN FARMER, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, as required by the Act of August 24, 1912, embodied in section 143, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, the Lawrence Publishing Company, Detroit, Michigan.

Editor, Bert Wermuth, Detroit, Michigan.
Managing Editor, I. R. Waterbury, Detroit, Mich.
Business Manager, I. R. Waterbury, Detroit, Mich.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of the stockholders owning or holding one per cent or more of the total amount of stock.)
The Lawrence Publishing Company, Cleveland, Ohio
Arthur Capper,Topska, Kansas
Citizens' Savings & Trust Co., Trustees, for Mary and Mortimer Lawrence,Cleveland, Ohio
Mrs. C. B. Rogers,Cleveland, Ohio
Lillian L. Cotton,Detroit, Mich.
Kate E. Russell,Lakewood, Ohio
F. H. Name,Philadelphia, Pa.
Nell Laing,Detroit, Mich.
I. R. Waterbury,Detroit, Mich.

3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)
American Life Insurance Co., Detroit, Mich.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and that affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only).

I. R. Waterbury, Business Manager.

Sworn to and subscribed before me this Seventh Day of April, 1924.

Ernest V. Wilken, Notary Public.

(My commission expires October 26, 1926).

IMPROVED Robust Beans, M. A. C. latest strain. \$8.00 per bu. Fritz Mantey, Fairgrove, Mich.

SHIP YOUR DRESSED CALVES and poultry to Geo. McCutcheon & Co. In business over 50 years. We want shipment direct from the farm. We charge only one cent a pound commission for selling calves and five cents on the dollar for poultry. Write for quotations and tags. Geo. McCutcheon & Co., 1113-12 Fulton St., Chicago, Ill.

FOR SALE—Green Mt. White Seed Potatoes grown on Virgin Soil from certified seed. \$1.00 per bu. F. O. A. Harriette, Mich. M. J. Stevens.

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.

SILVER FOXES—I am offering 1924 pups at reasonable prices. Quality Guaranteed. McCombs Silver Fox Ranch, Remus, Mich., R. 2.

FOR SALE—300 lb. 1922 early yellow dent seed corn, 98 per cent germination. Likely to sell in big lots. Martin Hoffman, Carleton, Mich.

INCUBATORS and Brooders, Queen, Buckeye and Reliable at half manufacturer's price. Don't miss this opportunity. Send for list. Bartels, 45 Cortlandt Street, New York.

FOR SALE—Hobson tractor with plows. Price \$300.00. Matt Makela, Houghton, 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 earliest yields in the State the past year in a test made by The Farm Crop Department of the Michigan Agricultural College. Write Paul Clement, Britton, Michigan, for catalog and prices.

BERRY BOXES—Our Berry Boxes will carry your fruit to market safely. \$4.50 per thousand. Write us. Central Basket Co., Barren Springs, Mich.

PET STOCK

GERMAN SHEPHERD—Airedales, Collies, Old English Shepherd dogs, puppies. 40c illustrated instructive list. W. R. Watson, Box 35, Macon, Mo.

A FEW Rat Terrier Puppies Left. Price Right. H. C. Schrock, Shipshewana, Ind.

TOBACCO

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.

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, pay when received. Cooperative Farmers, Paducah, Kentucky.

HOMESPUN TOBACCO. Quality Guaranteed. Smoking 10 pounds \$1.25. 20 pounds \$2.00. Pipe and Recipe free. Chewing 10 pounds \$2.50. Kentucky Tobacco Growers, Sedalia, Kentucky.

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—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—20 leading varieties, hatched from heavy laying strains; live delivery guaranteed anywhere in the U. S.; lowest prices ever offered. Write for catalog and price list. Miller Hatcheries, Box 651, Lancaster, Mo.

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, \$18.00; 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, Brahmas. Tyrone Poultry Farm, Fenton, Mich.

HAI Look! 100,000 chicks \$c and up. 15 varieties. From highest producing contest winners. Hatching eggs. Circular. Lawrence Hatchery, Box J, R. 7, Grand Rapids, Mich.

BABY CHICKS from Bred-To-Lay farm flocks. Barred Rocks, Reds, English White Leghorns. Now booking orders for May delivery. 100 percent live delivery. Chicks 10c each and up. Goret's Poultry Farm, Corona, 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. I. 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.

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.

BAT'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.

STERLING QUALITY CHICKS. 500,000. They have strong vitality, mature quick; from prolific egg producers. Catalog free. P. F. Clardy, Ethel, Mo.

S. C. WHITE Leghorn chicks, bred for heavy winter egg production. Breeding stock inspected by Michigan Agricultural College expert. Mrs. F. E. Ford, Norvell, Mich.

BABY CHICKS—Rhode Island Reds 12c. White Leghorns 10c; large mixed 9c. Live delivery guaranteed. Ida Frause, Maple City, Mich.

PURE-BRED Barred Rocks and Rhode Island Reds \$14.00. 98 percent live delivery guaranteed. Brookdale Poultry Farm, Paw Paw, Mich.

WHITE ROX, Barred Rox, Superior quality farm range stock, 2,000 breeders, Eggs any quantity. Chix. White Wing Egg Farm, Oregonia, Ohio, R. 2.

BABY CHICKS—Thoroughbred. White Wyandottes, Rocks, Reds and White Leghorns. Write for prices. Grace Milliken, P. O. Box 453, Fenton, Mich.

S. C. BUFF LEGHORN Baby Chicks from good laying strain. Willard Webster, Bath, Mich.

POULTRY

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, Hudson, Ind.

SINGLE COMB REDS—Selected eggs from strong matings. Win M. A. C. Silver and Bronze Medals. Birds under \$10.00 in both exhibition and utility classes. Postal card request brings free circular. Satisfaction guaranteed at let live prices. Harry J. Reiss, 233 Hunter St., Battle Creek, 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.

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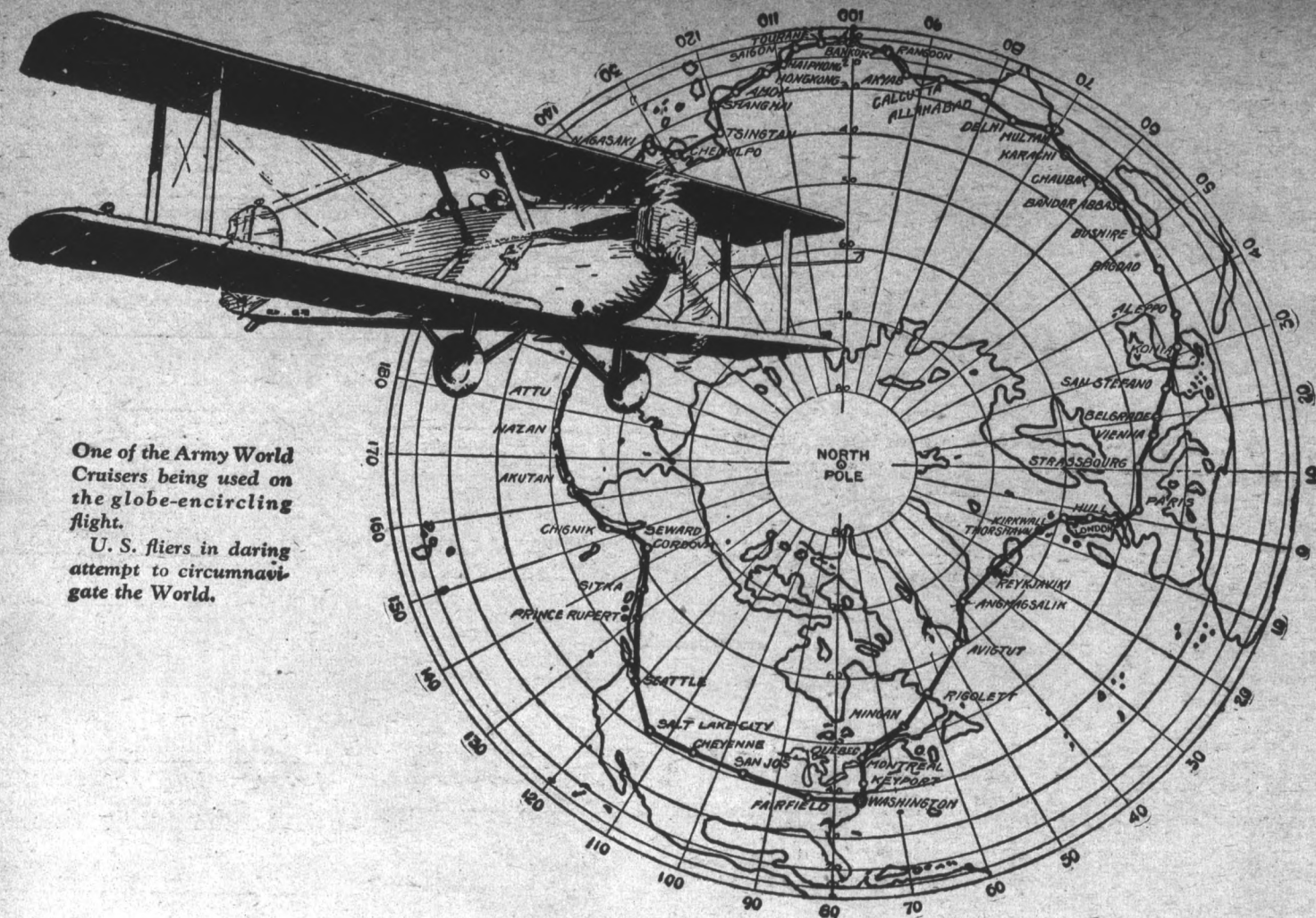
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