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ONE YEAR \$1.00
FIVE YEARS \$3.00



Putting the "Edge" on Knowledge

Select The Right Analysis For Your Crop

Through years of research and actual field experiments, the state agricultural colleges and experiment stations have determined the analysis of fertilizers which will give you the best results on each crop and soil.

For Michigan, the Michigan Agricultural Experiment Station recommends the following analyses:

Corn—Sands, light sandy loams: without mixed meadow, manure or green manure, 4-12-0; with mixed meadow, clovers, alfalfa or soy bean or with manure Acid Phosphate. Heavy sandy loams, silt loams, clay loams: Acid Phosphate. Muck: 0-12-12, 0-8-24, Potash.

Oats, Barley (with spring seeding of alfalfa or clovers)—Sands, light sandy loams: without mixed meadow, etc., 0-12-6, 4-8-6; with mixed meadow, etc., 0-14-4; with manure, Acid Phosphate. Heavy sandy loams, silt loams, clay loams: without mixed meadow, etc., 2-16-2; with mixed meadow, etc., or with manure, Acid Phosphate. Muck: 0-12-12, Potash.

Alfalfa, Clover—Sands, light sandy loams: without mixed meadow, etc., 0-12-6; with mixed meadow, etc., 0-12-6, 0-14-4; with manure, 0-14-4, Acid Phosphate. Heavy sandy loams, silt loams, clay loams: without mixed meadow, etc., or with mixed meadow, etc., 0-14-4, Acid Phosphate; with manure, Acid Phosphate. Muck: 0-12-12, Potash.

Potatoes—Sands, light sandy loams: without mixed meadow, etc., 3-12-4, 3-8-6; with mixed meadow, etc., 2-16-2, 2-12-6, Acid Phosphate; with manure, 0-14-4, Acid Phosphate. Heavy sandy loams, silt loams, clay loams: without mixed meadow, etc., 3-12-4, 3-8-6; with mixed meadow, etc., 2-16-2, 2-12-2, Acid Phosphate; with manure, 0-14-4, Acid Phosphate. Muck: 0-8-24, Potash.

Sugar Beets—Sands, light sandy loams: with mixed meadow, etc., 3-12-4, 2-12-6, 4-8-6; with manure, 0-12-6, 3-12-4. Heavy sandy loams, silt loams, clay loams: without mixed meadow, etc., 3-12-4, 2-16-2, 2-12-6; with mixed meadow, etc., 0-12-6, 2-12-6, 2-16-2; with manure, 2-16-2, 0-14-4, Acid Phosphate. Muck: 0-8-24, Potash.

As Authorized Swift Agent for the sale of Swift's Red Steer Fertilizers, we are co-operating with the Michigan Agricultural Experiment Station in recommending and selling these analyses.

Come in and we will help you select the analysis and decide on the amount per acre to make you the most profit.

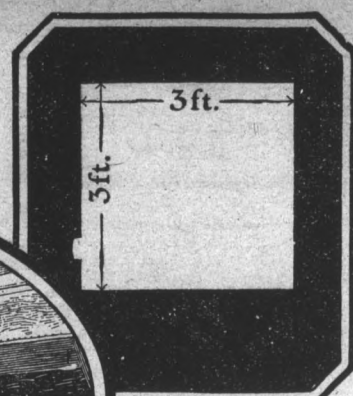
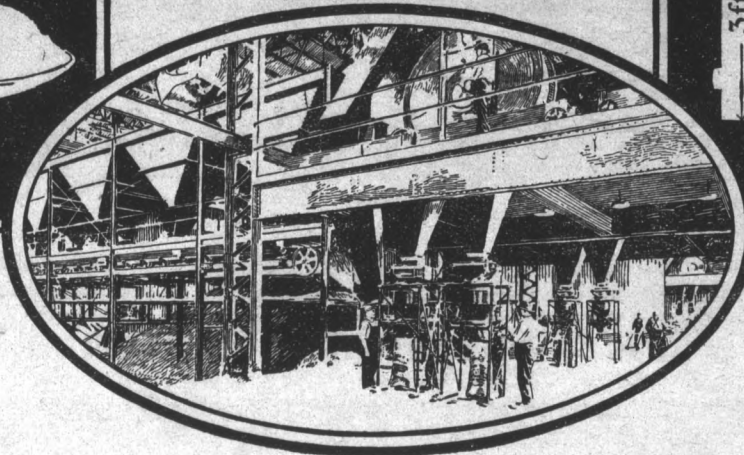
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Authorized Swift Agent



An application of 300 pounds of fertilizer per acre is equivalent to about one ounce—a little more than a spoonful—to each square yard of land

So carefully mixed are Swift's Red Steer Fertilizers that each plant gets its full share of each plantfood. Result—even growth, even maturity, maximum yield



A spoonful of fertilizer to each square yard of ground! Each plant gets so little that it is vitally important that the fertilizer be thoroughly and evenly mixed

"It pays to use them" Bigger yields have proved it

Most farmers know that it pays to use fertilizer on all crops. The real question is whose fertilizer and how much to apply per acre to make the most profit.

To produce large yields of high quality crops, the fertilizer must contain the right amount and kind of plantfood properly processed and mixed.

Fertilizers made right

Swift's Red Steer Fertilizers are thoroughly and evenly mixed to furnish each plant a balanced ration. Only the highest grade and most productive sources of plantfood are used in their manufacture.

The formulas and special processes employed are the result of years of careful study and experimental work.

Every operation, from the careful selection of the raw materials to the mixing, testing, and shipping, is closely supervised by experts—experts in chemistry, agriculture and manufacturing.

Every bag of Swift's Red Steer Fertilizers is backed by the 50-year-old reputation of Swift & Company for making each product the best of its kind. The farmer who buys Swift's Red Steer Fertilizers, therefore, is

assured of fertilizers that will return to him the most net profit.

A good investment

"It pays to use them"—not only on your money crops but on all crops. This is the testimony of a vast number of farmers in almost every state in the Union.

There is a Swift factory convenient to every territory. But Swift Service is nearer than that.

In your own community is the A. S. A. (Authorized Swift Agent). Co-operating with Swift & Company, your County Agent and State Agricultural College, he keeps posted on the best farming methods. He knows the farmer's needs and problems and is able and willing to give you worth-while service.

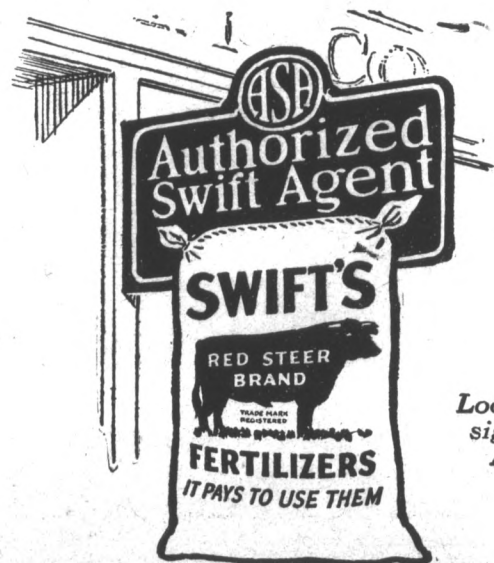
Discuss your fertilizer needs with the A. S. A. He will explain more fully the profit you can make through a liberal use of Swift's Red Steer Fertilizers. Should you fail to locate him readily, write us and we will gladly put you in touch with him.

Swift & Company

Fertilizer Works Dept. 44, Hammond, Ind.

Swift's Red Steer Fertilizers

"It pays to use them"



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sign of the
A. S. A.

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VOLUME CLXIV

MICHIGAN FARMER

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

QUALITY
RELIABILITY
SERVICE

NUMBER FOURTEEN

Varieties for the Vegetable Garden

Some Kinds Which Experience Has Proven Valuable

By George Starr

Vegetable Specialist at M. A. G.

IN the March issue of the Michigan Farmer we discussed the value of a home vegetable garden, and the preliminary steps to take in order to get the most out of the garden, and with the smallest amount of time and effort.

We also mentioned the fact that one should learn to know some of the more desirable strains and varieties of vegetables in order to obtain the best quality for use in the home.

It is not necessary to plant a very large list of vegetables, nor to include many varieties in this list. A few well chosen sorts will prove to be more satisfactory in the end.

We should by all means include some of the perennial crops, particularly asparagus and rhubarb. Asparagus is one of the most wholesome and appetizing of vegetables. It is about the earliest vegetable to appear in spring, it lasts over a considerable period in the early summer, and a plantation once established will produce for many years. While it may be started from seed, one can save a year by purchasing one-year-old plants. Be sure to obtain one of the strains of Washington variety. The plants may be set as soon as the soil can be worked in the spring.

A dozen clumps of rhubarb will supply an average family. It is better to purchase these from some reliable source. Plant in the early spring and feed well.

The potherbs or greens are next in order. The need for this class of plants has been greatly emphasized during recent years on account of the increase in knowledge as to their value in the diet. We would include in

our list at least two of the vegetables in this class, spinach and Swiss chard.

Spinach is a crop for spring and fall, as it will quickly go to seed in hot weather. A sowing may be made in early spring, and again in August for the fall crop. King of Denmark, and Victoria are two good varieties.

Swiss chard is particularly valuable in that it will last over a long period, it will stand hot weather, and it will furnish a succession of crops. Seed may be sown around May 1. Any one of the varieties catalogued will prove satisfactory.

The important salad crops are celery, lettuce and endive. It must be

borne in mind that celery is a moisture-loving plant and unless one has a moist spot in the garden, or is equipped with means of irrigating, it will be difficult to secure size and quality in this crop.

For the main crop, seed should be sown in beds in the open early in May. The plants will be ready for transplanting to permanent location in July. The Golden Self Blanching variety is a good standard sort.

There are three types of lettuce which may be grown, Head, Leaf, and Cos. In order to obtain success with head lettuce, it will be necessary to start plants inside, sowing the seed

during the latter part of March, or early April, later transplanting into flats and when properly hardened planting them in the open. The variety known as May King will produce good, hard little heads when grown in this manner.

There should be successive plantings of leaf lettuce throughout the spring, and early summer. Black Seed Simpson is a reliable variety. Cos lettuce will stand heat fairly well, and a small planting of this type should find a place in every garden.

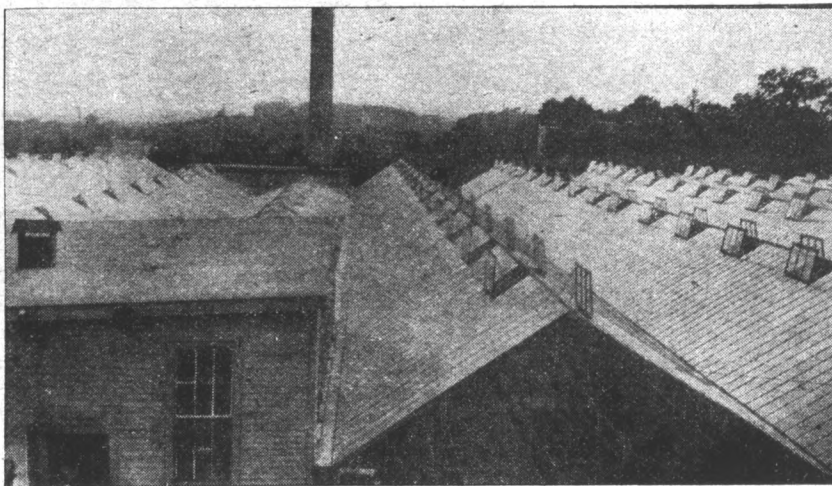
Endive is mainly a fall seed. Seed may be sown in July or August. After the plants are well grown they should be blanched in order to remove the bitterness.

The plants of the cabbage family have much in common in that they are fairly hardy and make their best growth in cool weather.

Seed for the early cabbage crop may be sown in hot-beds as early as February 1. For the main or fall crop seed is sown in the open ground during the early part of May. When well grown the plants are transplanted to the permanent location. Copenhagen Market is a good early variety, and a later sowing of this sort will make excellent sauer kraut. Danish Ball head is the variety to grow for winter storage.

The seed for the late crop of cauliflower, and the Brussels sprouts may be sown at the same time as the cabbage seed and the plants are handled much in the same way. Cauliflower is somewhat exacting in its requirements, and requires a very fertile soil. Use Snowball Cauliflower, and Dwarf Improved Brussels Sprouts.

(Continued on page 464).



The Greenhouse Furnishes Some Vegetables But the Vegetable Grower is the Chief Source of Supply. The Henry Smith Greenhouses at Gd. Rapids.

How Farming is Done in Palestine

Michigan Farmers Need Not Expect Keen Competition From That Part of Asia

By M. M. McCool

PALESTINE is not prosperous agriculturally. In some sections the most profitable crop is the ever incoming tourist crop. Illiteracy and ignorance of the majority of the farmers and, consequently, extremely primitive methods of farming with very low yields on very small acreage of crops of high acre value are the chief limiting factors in the agricultural revenue of this country. It is my judgment that the most important limitations, however, are the illiteracy and ignorance of the tillers of the soil. Other conditions that militate against agriculture are the system of taxation, and the rainfall over considerable of the areas which is too low for the high evaporation ratio. Furthermore, in some instances excessively stony land is a hindrance.

The climate of Palestine varies considerably in different parts of the country. The mean rainfall for several years averaged twenty-four inches for Saron, Nazareth, Jerusalem and Hebron, twenty-three inches for Haifa, sixteen inches for Gaza, and eighteen inches for Tiberias. The precipitation varies greatly. For example, in 1921, the total for Jerusalem was 13; Haifa, 25; Gaza, 19; Beersheba, 10. In 1922 it was 12 at Jerusalem; 20 at Haifa; 16 at Gaza, and eight at Beersheba.

The characteristics of the northern and central regions are a rather heavy rainfall, rainless summers but with heavy dews and relatively high humidity. The mean temperature does not vary much and there are no killing frosts. In the Jordan valley the rainfall is rather uniformly distributed, the average being about twenty inches, but the mean summer temperature is very high and the humidity low. In the southern portion of Gaza and Beersheba the average precipitation is about eleven or twelve inches, which is very irregularly distributed and consequently there results long periods of drouth.

The total area of Palestine is approximately 3,633,000 acres, of which it is estimated there are under cultivation 1,208,000 acres and there are about 740,000 acres of arable land not under cultivation. This leaves approximately 1,690,000 acres of uncultivable forest, pasture and swamp lands.

The uncultivable land includes several distinct physical formations. The largest area is the rainless desert to the south of Beersheba. Probably the next in area is the rocky barren plateau of Judith, followed by the de-

nuded limestone hills of Samaria and Galilee. In the coastal plain region near the seaboard, sand dunes and swamps alternate. It is said that in the southern country where the rainfall is very irregular and dry years are often repeated, there is an insensible transition or gradation from the semi-arid to purely desert conditions.

The director of the department of agriculture and fisheries of Palestine accounts for the large area of arable land not under cultivation on several grounds, one of these being a sparse population living in isolation, which employ very primitive methods, adopting farming system based on bare fallowing.

The generalized soil map of Palestine shown on P. 468 was furnished me by Professor Racznouski. This shows that so far as texture relationships are concerned, the soils are favorable for agricultural production. My observations lead me to believe that the lack of productivity is not due so much to the land itself but to variations in the rainfall, and to poor methods and very little attention to returning fertility to the soil. The lands for the most part are high in lime and the water hold-

ing capacity of the majority of them is sufficient. Although there are a great number of crops grown, those who have studied conditions consider that many of them should be supplanted by staple crops of much higher acre value, such as tobacco, sugar, cotton, flax and castor. Undoubtedly the climatic and soil conditions are such that these can be grown rather extensively and especially where irrigation may be practiced.

The approximate yields of the staple crops grown in 1920-21 were as follows: Wheat, nine bushels per acre; barley, ten bushels; lupines, ten bushels; peas, five and a half bushels; beans, twelve bushels; sesame, nine bushels, and Durra fifteen bushels. Other important crops, the average yields of which are not available, are: Olive oil, grapes, figs, melons, almonds, oranges and lemons. It is well to note that the yields of wheat, barley and lentils were one-third less in each case than those obtained in Egypt during the same year.

As above stated, these very low yields are due in a large measure to primitive methods of cultivation. The nail plow is used almost universally. This, of course, is the same as that used during ancient periods. It only

(Continued on page 467).

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DETROIT, APRIL 4, 1925

CURRENT COMMENT

Keep The Load Moving

IT was a common parlance among the teamsters in the lumber woods to say, "Keep the load moving." The idea was that if a team once stopped it would be impossible to start the load again without much trouble.

The fact is that loads start hard. But, once under motion the momentum carries them along with comparatively little extra pull. Modern locomotives have auxiliary engines to aid in starting heavy trains which, when moving, can be easily pulled by the main engine.

This same principle holds good in other departments of life. The world's greatest automobile manufacturer recently stated that the expense of shutting down his plant was enormous. A commission man who is marketing a special brand of potatoes, remarked the other day to the writer that it was hard to introduce the brand; but, once started, the merit of the brand is carrying the business along easily.

The farmer has the same principle to deal with. He must keep his crops going once they are started, if he is to realize the largest profits. To stop their development means a loss of time that can never be regained, or additional plant food to pull them back to normal. Economy demands a supply of fertilizing elements that will bring the crop through without a stop. Good farm management provides such supplies, always.

A Boon To Flax Culture

THERE has been developed in the experimental laboratories of Henry Ford at Dearborn, machinery for separating the fiber of flax and putting it into shape for spinning.

Heretofore, the manufacturing of linen has been confined to countries where much cheap hand labor is available—such as Ireland, Belgium and Russia.

The machinery developed by Mr. Ford and his engineers does away entirely with hand work in harvesting and processing this plant. There is every reason for believing that this new equipment will mean as much to the flax industry as did Mr. Whitney's invention mean to the cotton industry.

Should this prove to be the case, Michigan will be further indebted to

Mr. Ford, since she has thousands of acres of land peculiarly suited to the production of fiber flax.

Furthermore, our experiment station has been cooperating with the federal department of agriculture in the development of varieties of flax that are resistant to wilt and, at the same time, produce a fiber of high quality.

Grasping Opportunity

LAST week, while visiting with a farmer friend, we were informed that through the production of a superior grade of celery he had been able to capture the business of a central Michigan city of four thousand population. His sales to the people of that city this season promises to reach the two thousand dollar mark. This man has a few acres of soil quite different from ninety-nine per cent of the land of that territory. By his own initiative he has capitalized the peculiar qualities of his farm, instead of trying to compete with neighbors on crops unadapted to this soil.

In every community soil variations exist. Often these make possible special production, as in this case. It is for the highest good of the farming interests, and of the consumers of the community, as well as to the personal advantage of the farmer to divert these lands to the purpose for which they are best adapted. These special situations require farming and business ability of a high order, which fact protects the one who has or can acquire the necessary accumen to carry on these special lines successfully.

It Pays To Advertise

SEVERAL Grand Rapids men interested in grape fruit groves in Florida, had that old-time problem of marketing after they got their trees into production. That is, their difficulty was to find a market that would leave them some profit afterwards.

These men, through their cooperative grape fruit growers' association tried a new plan of marketing right in the old home town, Grand Rapids. They advertised their grape fruit in the local papers, and shipped direct to commission houses there.

In a short time all the commission men were selling this brand and sales jumped to three cars per day. Retailers usually selling one box a day are now distributing two or three in the same time.

The beauty of the plan is that the growers' association has control of the fruit until it gets into the retailer's hands, the commission men working on a commission basis only. In ten days this association has established a good market for its product in competition with grape fruit from other sources. Besides it has created a name for its product through advertising which will be an asset to it in the future.

May we suggest that some Michigan fruit producing communities take a hint from this as a good plan to work out, through advertising and efficient marketing, a profitable outlet for their product.

Live And Let Live

THERE is a list of figures sent us by our Washington correspondent that will be interesting reading for our farmers. In 1914 the bricklayers' union in our federal capital city were getting sixty-seven cents per hour; in 1925 the scale is \$1.50 per hour. Carpenters received fifty cents per hour at the earlier date, and are now demanding \$1.16. The rates for plasterers are sixty-three cents and \$1.53, respectively. The average increase in wages for workers in the building trades in Washington is from fifty-three cents in 1914 to \$1.30 in 1925.

High wages are not in themselves objectionable. In fact, they are most desirable, providing all can enjoy them. The trouble comes when they are available to only a portion of those who work. If one class secures a wage that is far above the average, then the average wage earner suffers in purchasing the product of the highly paid men.

Occasionally, there are executives who, through superior management enable their workmen to earn more than they would under less efficient managers. Then it becomes possible for the worker to enjoy a higher wage and, at the same time, to sell the product of his labor at a reasonable cost.

It would appear that, in the building trades, not only have these organizations pushed up prices but they have likewise cut down efficiency. This is having its effect on the amount of building being done. These men are actually killing "the hen that laid the golden egg." Banks are scrutinizing more carefully investments based upon these high wage levels. Furthermore, trade schools are being formed to provide a supply of employees who will do this work at less cost.

No person or group of persons can continue, for a long period of time, taking more than their share from society. Sooner or later they will be called to account. That fact argues for a "live and let live policy."

Just About Dad

WE just read a little ditty about dad. And being dad, we ought to be puffed up considerably. But, well, we're just not. This eulogy of the head of the house, if you please, says that even if dad is not dressed up like a sheik, he is your father and as such has struggled to keep things going. And besides, he thinks you are the greatest boy on earth. It says he is "some man" instead of the "old man."

The one who wrote that must have been an idealist. Perhaps he had just become inflated with pride at the arrival of a baby boy. It is true that the ideal father is all that the word father implies. He makes sacrifices, he has patience, he wants to help his son to grow to worthy manhood, he chums with him and does those things which are an inspiration to the boy. But how many of us are ideals?

And, lest we forget, that boy of yours has dad pretty well sized-up. He knows about where his dad stands in the rating of manhood. He knows when dad demands of son something that he does not demand of himself. And he knows at least a few things he has not told you.

Of course, we cannot be ideal, being human. But we wonder if it would not be a good thing to check up once in a while to see if we can not do something to bring ourselves a little closer to the ideal than we now are. Such a checking up might make us greater assets to the boys than we now are, and it wouldn't hurt dad a bit.

The Malthusian Law

THE Reverend T. R. Malthus, who lived about a century ago, was a political economist of some repute. The main reason for his name going down in history is that he formulated a theory regarding population increase which is called the Malthusian law.

This "law" states that the population of the world will increase faster than its means of subsistence and that the weaker and lower classes will suffer from the lack of nourishment and from poverty.

This "law" is not effective yet, except perhaps locally in some cases. Whether it will be remains to be seen. One hardly dare to predict things in these days of rapid changes. But we have poverty and under-nourishment with us even now. However, if we

look at the matter fundamentally, we will find that poverty is often self-inflicted because the individuals are not using their ability and opportunity to greatest advantage. Under-nourishment in most cases, in this country at least, is due to a lack of knowledge of the science of nutrition.

The Reverend Malthus also said that if the population was not restricted by prudential restraint, poverty, vice and other suffering would restrain it. Perhaps he meant birth control when he referred to prudential restraint.

But regardless of what the Reverend meant by his theory as a whole, things have changed considerably since he propounded it. Transportation has brought the corners of the earth to our doors. Science has made two blades of grass grow where but one grew before. The growing interest in correct eating will enable us to make more economical and more efficient use of our food.

Perhaps Malthus was right, but when we sit by the fire and dream, we can not help but think that we are at the beginning of a great age when there will be more happiness among all peoples, more brotherly love, greater opportunities and less bondage, and a brighter outlook for agriculture.

Is not the progress man has made in the few thousand years we know of him, a basis for our "dream," especially as scientists say he yet has some millions of years to perfect himself?

Water

WELL, I see that my dutiful husband has been acting smart again. He tried to show his brightness last week by giving the formula for water. If, instead he could find some formula whereby he could make brains and muscles to work together, he would do this particular institution, called home, much more good.

He is a great conservator of energy; he never works his muscles unless he has to. But even when he has to use his muscles on one job his brain is on something else. It is usually on water, that is, fishing. If not on that, it is on his "oughto" and high school girls.



Pleasures receive a greater part of Hy's thought than the more serious and worth-while things of life.

But speaking of water, Hy likes to get as much out of it as he

can, that is, fish and such like. But he does not like to get into it himself. He seems afraid that rain might shrink him and when it comes to washing, he does what you might call dry cleaning. He uses as little water as possible, and then wipes the dirt on the towel.

He likes water, though, that is to drink. I never saw such a drinker in my life. If that water had anything in it that would be habit forming, I am afraid Hy would drown himself.

He mentioned that the human body is about sixty-five per cent water. I actually believe that he would analyze about ninety per cent. Water never moves unless it is going down hill, or something is pushing it; that's Hy.

Another reason I think Hy is such a large percentage of water is that it is very hard to dry him up. His tongue works easier than any other part of him. And even though he has his mouth open a lot, it never seems parched.

I think I see my little bucket of water down the road now. He thinks he is working hard, but he is just like a whirlpool, going around and around and never getting anywhere. I just hope he doesn't get dizzy because, if he'd fall he'd make a great big splash.

SOPHIE ABIGAIL SYCKLE.

Ashamed to Ask for Tax Exemption

After Twenty Years this Farmer is Enthusiastic Over Woodlot Venture

By C. G. Tyndall

MOST people consider conservation of the woodlot to mean merely letting it alone or taking out only the timber that has died. We hear much criticism of the way the lumbermen wasted our native forests and brought us face to face with a timber famine, yet some who voice these changes are really wasting more in proportion to what they have than did the lumbermen.

Conservation as I see it, is not only carefully saving all the timber and making good use of it, but also handling the growing timber in such a way that none of the natural forces which produce trees are wasted. The quality and quantity of these forces are fixed by the nature of things which surround localities and change, as things change in nature and strength. Lakes, swamps, rivers, creeks, hills, valleys, soil, direction of slopes, and many other minor things strengthen or weaken these forces. Light and air are everywhere, but are intensified and modified by the above named features of nature. To avoid waste of these forces, trees must be grown that can make best use of conditions present in any given location. Nature seems to have provided a way for all kinds being sown and we find many varieties growing in the same locality whether the parent tree was present or not.

In fifteen or twenty years the thinning process takes place. In other words, a war begins between varieties, and those trees whose requirements are absent will be crowded out. These should have been taken out long before the struggle started, then the forces which were wasted in the unfit tree, would have gone into the fittest, thus producing a better growth. By careful thinning the waste, which results from the strife for survival, could be avoided. This same war will continue in trees of the same variety under ideal conditions unless attention

is given to proper spacing. Any variety of tree will grow and thrive if it is placed where its requirements are found. It is, therefore, up to the timber-grower (if he wishes real success) to make a careful study of the needs of each kind of tree, and also the forces which supply the needs.

There are some varieties of trees that will live in unfavorable condi-

saying that these changes are the cause of this degeneration. Under the present conditions it would seem wisest to make best use of the trees that are taking the place of the lamented pine.

On my farm I have young hardwood timber mixed with a few pine growing on cut-over pine land. Twenty years ago it was too small to make much

absolutely needed for light and air.

All the limbs and brush from the removed trees, also the cut undergrowth were left scattered over the ground. This furnished mulch by holding the fallen leaves which otherwise might have been carried away by the wind. Some advise that all this trash be burned, but nature soon takes care of it in making food for the growing trees.

After this first thinning I had all the young trees that could profitably be grown. When the sprouts from the stumps of the removed trees began to show, a flock of sheep were turned in to keep them down. As the trees grew larger, thinning was again necessary, and paid well in fuel and posts. The same rules mentioned above were followed.

The third thinning was carried on with a view of maintaining the number of trees per acre by reproducing from the stump. To do this, care must be taken not to let the trees get too large before cutting. At this stage the woodlot should not be used for pasturing any kind of stock. The strength of productive forces in different localities has more to do with the reproducing ability of trees than most people think. For my location I can grow a new tree on ninety-five per cent of the stumps, provided they range in size from eight to fourteen inches. The large one being red oak. All the work done in caring for my woodlot is what is ordinarily done in cutting wood. It should be all done in the winter. My wood farming costs me nothing but taxes and a little ground rent and it pays me so well that I would be ashamed to ask exemption from tax.

My lot is admired by everyone who sees it, and although my pine doesn't thrive the rest are a source of pleasure and profit to me.



State Nurseries Are Making it Possible to Reforest Many Acres.

tions, but do not really prove successful in surroundings they must tolerate. Since trees are anchored to the soil and cannot move to suitable locations, they should be removed in order to give their neighbors a better chance.

Most people are interested in results, and if one's efforts are to be rewarded, he must study the influences that produce the desired growth. In the past we had a superb variety of pine in central and northern Michigan which now is almost extinct or so changed in characteristics as to appear like dwarfs. A careful study of changed conditions warrants me in

fuel, but it grew thickly. After looking the location and trees over carefully, I determined the varieties to save and began the thinning process. My location is most favorable to oak, so I saved the best of them and a few maple, hickory, and what pine I had, keeping in mind that if I produced what I wanted, I must give the trees what they needed. Since white oak needs more sun than the other oak varieties I aimed to keep it in a favorable position to insure length of body. The spaces overhead were carefully looked to, attention being given that no tree had more room than was

Are Farm Homes Under Equipped?

The Average American Farm Woman Carries Over a Ton of Water Each Day

By F. E. Fogle

AGRICULTURE or farming, unlike teaching, storekeeping, banking or manufacturing, is a family affair. It is a rare thing when a single man manages a farm, for profit, successfully and continuously. The wife is a necessary partner in the farm business. She has an equal part in making "a full and comfortable living from the land," and in leaving "the farm more productive than when taken," and her's is the major part in rearing a family carefully and well, and being of good service to the community.

If these statements are true, equipment for living is as important as equipment for operation. Machinery and labor-saving devices have benefited the farmer greatly. Modern improvements have entered the farmer's home and benefited the farmer's wife relatively to a very small extent.

Napoleon said, "An army travels on its stomach," meaning that it is dependent upon its commissary and sanitary departments. Napoleon's army was depleted and his power broken through failure of his commissary and sanitary departments.

The farm, like an army, is dependent upon its commissary and sanitary departments. A woman's strength and endurance is the measure of the stability of farm living. These departments on the farm have made little advance since the days of our great grandmothers. The sewing machine has replaced hand sewing, the stove

has been substituted for the open fireplace. These are the only modern improvements to be generally adopted in the farm home.

The work of the farm woman is hard and continuous. It is monotonous with long hours. The seasonal changes which bring new work to the farmer amid the beauties of nature do not

States Department of Agriculture, less by modern improvements and labor-saving machines than any other speaking of a survey covering ten thousand farm homes says, "One needs but to follow the average woman through a week's routine to realize her many problems and to gain some conception of the vitality and skill

erings, besides doing her own washing, the family mending, raising the poultry, caring for dairy products, and often assisting with other farm work. She has the longest working hours of anyone on the farm and often the least conveniences."

A report of 9,000 farm women shows the the average working day, summer and winter, is 11.3 hours. If love and service were not the ruling motives, and tactics of labor unions were in vogue, a walkout would be assured.

Anyone who has had the satisfaction of living in the open country knows that there are compensations for the farm woman. Farm women love the country and do not want to give up its freedom for city life. What they do want is normal living and working conditions in the farm home.

Is there relief for the farm woman from this hardship? Agricultural engineering has mastered the problems of sanitation and conveniences for the farm home. Some progress has been made in raising country home standards of living. Every community has some homes which exemplify the fact that modern science and modern inventions can offer to the farm family the opportunity of freedom and independence with the hardships eliminated.

Imagine the average farm home with no modern improvements. Picture the wife rising early to light a fire in a

(Continued on page 478).

The Requirements of a Good Farmer

SOMEONE has given us four requirements for a good farmer: First, the ability to make a full and comfortable living from the land.

Second, to rear a family carefully and well.

Third, to be of good service to the community.

Fourth, to leave the farm more productive than it was when he took it.

penetrate the farm home. There is the same sweeping and dusting, washing and ironing, sewing and mending, carrying water, emptying slops, and the everlasting getting of meals and the washing of dishes three times a day.

Much of the farm work is done in the house; eggs are prepared for market, milk pails washed, feed for young animals prepared, and the hired man may be boarded.

Farm women have been benefited class. This is not an exaggeration. Florence E. Ward, of the United

called into play by her duties as cook, seamstress, laundress, and nurse; family purchasing agent, teacher of her children, and factor in community life; as well as producer of dairy, garden and poultry products."

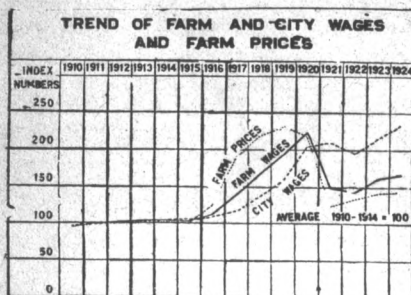
Another authority says: "One of the greatest travesties on rural life is the fact that the farm woman does not get a fair deal. She has little hired assistance. Her work is sometimes increased by the presence of permanently hired farm hands in the home. She cooks for her own family, the threshing gang, and big Sunday gath-

News from the State Capitol

By Our Lansing Correspondent

WE certainly have had a strenuous day," observed one of the representatives to ye correspondent as we were riding down on the capitol elevator late one evening during the past week. By that simple statement he undoubtedly voiced the feelings of his 130 fellow law-makers who are working busily early and late determining the fate of some of the more important of the approximately 700 measures introduced to date.

Eight-hour days are not observed by the legislators who are interspersing long day and evening sessions with



busy committee meetings and intense public hearings, at which high-powered attorneys and other spokesmen plead for or against controversial legislation.

MOST numerous among the many bills now being passed are those granting appropriations for the various state institutions and departments, for maintenance and operating expenses and for occasional new buildings. It might be said, however, that the legislature does not seem in a mood to approve any of the more ambitious building programs which have been proposed.

Most of these budget bills have now been passed either by the house or senate, but it is interesting to observe that thus far these two branches of

the legislature seem unable to agree upon the terms of a good share of these bills. In general the senate seems to be somewhat more liberal than the house and more inclined to leave more leeway up to the state administrative board. The house wishes to make somewhat more detailed specifications as to how the money is to be expended. Among the largest appropriation bills which are being held up are the measures providing for agricultural extension and for new buildings for the Michigan Agricultural College.

DESPITE the utmost economy which the law-makers may observe regarding these appropriations, it is apparent that the total will be more than had been expected. In the face of this situation and the further fact that many crying needs of the state will go entirely unanswered, it is strange and well-nigh tragic that little relief in the matter of tax reform seems to be forthcoming from this legislature.

Early in the session the situation looked hopeful. For instance, the senate and house committees on taxation held a conference with Governor Groesbeck and it was agreed that the time had come to curb the menace of tax exempt securities in Michigan and to place a moderate tax on this class of wealth. Carrying out this program, Senator Vincent Martin, of Fruitport, introduced a bill providing for an annual three-mill tax on domestic bonds, and Senator Walter Truettner, of Bessemer, introduced a companion measure proposing a five-mill levy on foreign securities.

When these measures came up for final passage they met determined opposition and were re-referred to the

committee, where amendments were made which pulled several of the teeth out of the bills and reduced the rates to two and three mills rather than three and five mills, as originally provided. However, even in this modified form they were opposed by special interests which had sufficient strength so that when they came up once more for final passage they were side-tracked into the senate committee on judiciary, in which they will no doubt find a peaceful resting place.

Thus once more an effort to take some of the tax burden from real estate and place it onto our ever-increasing personal property proved fruitless. It now appears that tax exempt bonds will continue to multiply, while the companion evils of municipal extravagance and increasing public indebtedness through controlling bond issues.

PROBABLY the longest and most interesting debate of the week in the house broke loose when Representative Howard Smedley's bill to prevent the pollution of Michigan waters came up for final passage as a special order Tuesday afternoon.

Legislation of this character was advocated by Governor Groesbeck in his biennial message, and leading conservationists agreed that, with the possible exception of reforestation, there was no more vital conservation problem confronting the state than this matter of the increasing pollution of our streams and rivers. It is commonly recognized that they are virtually becoming open sewers as municipalities and industries continue to dump into them an ever increasing amount of filth and waste, killing the fish, menacing the public health, and decreasing the attractiveness of Mich-

igan as a state for tourists' travel.

Michigan now has a law on the subject, but its enforcement is distributed among the department of conservation, the department of public health and the attorney-general. It is probably because of this overlapping authority that very little apparent progress is now being made toward pollution prevention. The Smedley bill would put the investigation and abatement of pollution nuisances under the entire charge of the department of conservation. After surviving all sorts of attacks and parliamentary skirmishes, the Smedley bill was finally referred to the house committee on ways and means. An extended conference on this measure has been held in the governor's office and it is understood that amendments are being drafted and that it will be reported out once more in some form or other in the near future.

ANOTHER issue of the most far reaching importance coming before the house is the Bohn bill proposing a change in the present method of distributing the primary school fund. Under the provisions of this measure, which has already passed the senate, ninety-five per cent of the fund would be distributed as at present, while the remaining five per cent would go into a special fund to be apportioned among the more needy school districts of the state in proportion to their school population per one hundred thousand dollars' valuation.

The purpose of this legislation is to afford some degree of educational equality in Michigan, and there is every indication that it will pass the house by a substantial majority, despite the fact that it will somewhat reduce the amount of primary aid to be received by some of the more prosperous counties.

LATE AGRICULTURAL NEWS

WANT SPECIAL SESSION OF CONGRESS.

A SPECIAL session of congress will be called by President Coolidge in September if those senators who are demanding tax reduction at the earliest possible moment have their way. Senator Smoot, chairman of the senate finance committee, declares that lowering of income tax rates, especially the surtaxes, is necessary and urgent.

POTASH PRODUCERS GET TOGETHER.

PROSPECTS for lower prices on the various forms of potash imported from Europe due to expected competition between French and German potash interests have gone "glimmering," according to reports received by the department of commerce. It is found that French and German potash producers have entered into an agreement as to markets and price level.

WANTS HARMONY IN AGRICULTURAL DEPARTMENT.

THE new secretary of agriculture has given out that he plans to "sell" to congress and the people the program of farm legislation proposed by the President's conference, and he will also reorganize the personnel of the department of agriculture to the end that inter-departmental controversies cease and more co-ordination of action may be obtained. This is taken to indicate that Secretary Jardine will use the influence of his department

toward the enactment of the cooperative marketing board plan proposed by the conference and embodied in the Capper-Haugen bill, and that he will have the bureaus and divisions working harmoniously along certain definite lines, if he finds it necessary to ask bureau and division chiefs to resign.

SEEKING FARMERS FOR NEW FARMS.

THE developing of new ready-made farms by the federal government is going on continually, notwithstanding the unfavorable situation on western reclamation projects, and the protests of all the big farm organizations against the opening up of new irrigation projects until demand for farm products catches up with production.

Secretary of Interior Work reports that 18,000 new settlers on government reclamation projects will be needed soon, and he is asking transportation companies to cooperate with the government in obtaining them.

IT WILL ONLY COST A QUARTER.

A NEW handling service, which will give the sender by parcels post the very best possible service, will be available April 15 when the provisions of the postal law become effective. The cost of this service will be twenty-five cents per package. Postmaster-General New explains that special handling of parcels post matter means that parcels post under this special service will be handled as first class mail. Its particular advantages apply

mainly to its handling enroute on railroads and other transportation facilities between the post office of dispatch and the post office of destination.

WANT TO KNOW FOREIGN PRICE LEVELS ON AMERICAN GOODS.

SIXTEEN senators headed by Senator Ladd, of North Dakota, have joined in a written request to the Federal Trade Commission, which is vested with administration of the Webb-Pomerene export trading act, to send them any information the commission has, regarding the nature of combinations being formed abroad by American business interests in alleged violation of anti-trust laws, the amount of such investment made abroad in such connection, the extent to which such American interests are working with foreign combinations and whether in any case American goods are sold cheaper to foreign customers, as a means of maintaining the price of such goods manufactured in the United States, than to the American consumers.

WOULD STOP THE FRAUDULENT SALES OF LAND.

THE establishment of state and national policies in land settlement to protect unwary purchasers from fraud is urged by the United States Department of Agriculture as a result of a study of land settlement practices in the Great Lakes states. There are concerns engaged in deliberately selling worthless land by methods which, if not technically fraudulent, are close

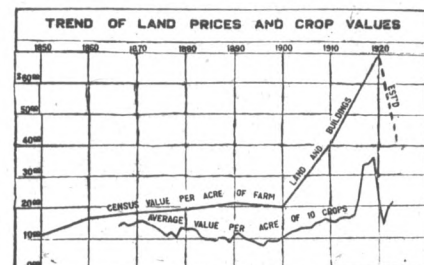
to the shadow zone of fraud schemes.

Much the larger part of the land sold at retail in undeveloped portions of the lakes states has been disposed of by agencies that do not assume any responsibility for the establishment of the settlers on the land.

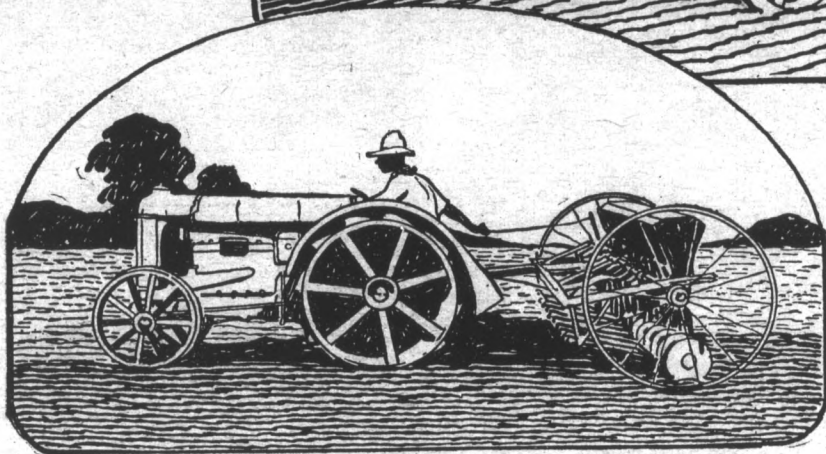
The department investigators point out that there should be careful selection of the land to be settled and that it be sold only to people who are seeking to become farmers. The sale of land at a reasonable price and on convenient credit terms and low rates of interest are advocated.

PREFER AMERICAN APPLES.

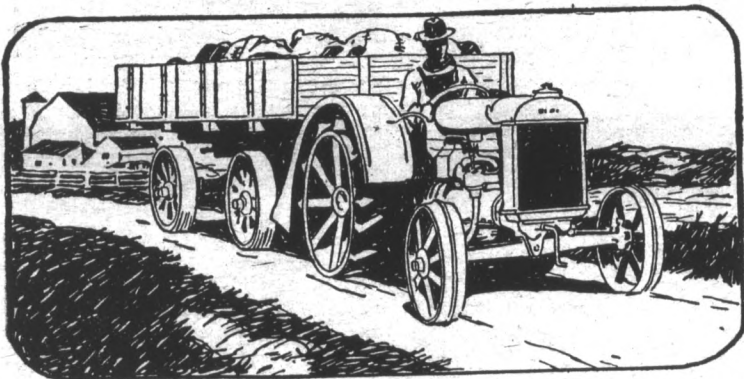
THE people of Sweden prefer American apples to any others, according to reports from that country. The American apples not only dominate



the fruit market in Sweden, but are affecting materially the sale of oranges from Spain and Italy. A larger trade in American apples could be developed in the countries of northern Europe if the proper market machinery were created to secure an even distribution of first class fruit honestly graded and packed.



Grain is quickly planted when a Fordson pulls the drill



The Fordson is always handy when there's hauling to be done

While the Crop is Still in Your Hands

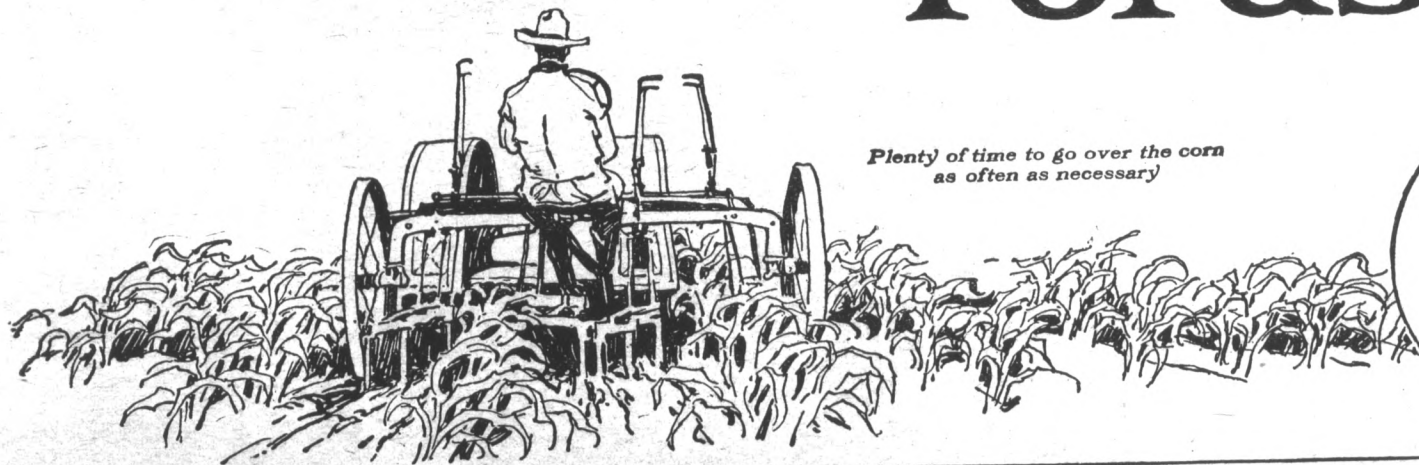
Nature takes care of the crop after the seed is planted.

But what good rain and sunshine can make of your wheat crop depends upon the thorough seed bed preparation and proper planting which you have done.

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OUR SERVICE DEPARTMENT

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

COLLECTION OF WAGES NOT PROMISED.

A. sold his farm to B. and after the papers were signed he asked if A. would stay on the place six weeks and feed the stock. A. said he would, but B. did not say he was going to pay him, can A. get his wages for that time he is working for him?—Reader.

There being no express promise to pay, the question is whether the facts imply a promise to pay—that is whether the parties at the time contemplated that the services should be paid for. This would seem to be a question of fact.—Rood.

COLLECTION OF MONEY.

If I let a person take some money and he later says he doesn't have to pay it back because he didn't say he would when I let him have it, can I collect anyway? Mrs. M. D.

The only question is whether it was understood at the time the money was paid that it was a gift or a loan. If it was then intended as a gift no recovery can be had. If it was then intended as a loan there may be recovery.—Rood.

FOR BANDING TREES.

Could you please send us formula how to make a tanglefoot to put on grape plants, also fruit trees to keep cutworm from cutting buds?—F. C. B.

A sticky substance for use on trees to keep worms down can be prepared by heating together two parts of castor oil and one part of rosin. This should be applied in a narrow strip about one inch wide around the trunks of grape vines, small fruit plants, etc., which are likely to be troubled with cutworms. If the weather is very cold and wet, it will be necessary to occasionally apply a new coating of the wax or loosen it with a steel or wooden comb in order to destroy the crust which will form.

A much better but more expensive material can be prepared by using one part of gum copal and two parts of castor oil, or by combining one part of rosin, two parts gum copal, two parts tallow and three parts of castor oil. In the heating of these mixtures care should be taken not to use too hot a fire, and to continue the cooking only so long as is necessary to secure a homogenous mass. The two last named mixtures have the advantage of remaining in a soft and sticky condition in any weather.

GARNISHEEING TTACHER'S WAGES.

Can a school teacher's wages be garnisheed for payment of a promissory note?—W. M. S.

The statutes expressly provide that municipal corporations other than counties, may be charged as garnishees. There is no greater exemption of teacher's wages than any other wages—sixty per cent if married, forty per cent if single, not exceeding \$30.—Rood.

LEAVING CHILDREN OUT OF WILL.

How should a will read? Can children break the will if they are not left anything, and if they aren't mentioned in said will? Everything left to the wife, stating she will take care of the children when through with property, etc. The will stating he bequeaths all personal and joint holdings to his wife. Give me an idea how the wording should be, and can a will be broken by the children should they be given \$1.00 and named in a will?—M. W.

It is not necessary to leave any property to the children. The only

matter of interest is to avoid the application of the statute providing that children born after the will is made, or forgotten by the testator, shall take as if there were no will. That the testator has forgotten the children must appear from the face of the will itself. Other proof of the fact cannot be given.—Rood.

SEEDING ALFALFA.

I have a sweet clover lot of twenty acres which has been to sweet clover twice, following oats. Last summer I had an immense crop of hay from this field. My intentions were to fall-plow same and sow to oats or buckwheat and seed to alfalfa, this being very heavy soil. The fall season was too dry, so plowing was almost impossible. The question is, would it be all right to plow the sod this spring, sow to oats and seed to alfalfa. I only cut half of this field, the balance has gone back into the ground for a soil builder. Undoubtedly this will reseed itself. What had I better do, sow to sweet clover once more, or alfalfa, and chance the mixture.—D. W.

Your suggestion of seeding alfalfa, using oats as a nurse crop, is a very good one. The seed-bed should be well worked down and the alfalfa seed broadcasted by the seeder attachment just ahead or on to the discs of the grain drill. In case you do not have a grain drill with seeder attachment, would suggest sowing the seed broadcast and covering with a spike-tooth harrow.

VETCH FOR HAY.

I am interested in vetch as a soil builder and hay crop. I have bought a run-down farm and there is no hay on it. I wonder if I could sow vetch and oats this spring and cut it for hay, and then plow it under for wheat this fall.—L. H. H.

Here at the Agricultural Experiment Station, a mixture of two bushels of oats and twenty pounds of hairy vetch seed sown in the early spring has produced an average yield of two tons of air-dried hay per acre. The vetch usually makes a small amount of second growth that may be plowed under.

While vetch is not so sensitive to soil acidity as alfalfa or sweet clover, still good results are not usually secured on acid soils. If the soil is acid, an application of two tons of limestone, or from three to five cubic yards of marl will be found of considerable value in increasing the yield. The oat and vetch mixture should be sown during the early spring, since the growth of vetch is greatly retarded by hot, dry weather.—C. R. Megee.

HUBAM CLOVER.

What kind of soil would you recommend for the growing of Hubam clover? Would it be necessary to lime the field or not, as it will grow red clover? When would be the proper time to plant Hubam and how much seed to the acre? Is it necessary to sow far enough apart to cultivate, or should it be sown in drills as grain is sown? Where can seed be secured from?—M. A.

Hubam clover is an annual sweet clover. It is very similar in its habit of growth to the common sweet clover with the exception that it matures in a single season. The crop gives promise of being of value as a short season hay crop and a green manuring crop. It has proven to be a valuable honey crop.

For forage purposes seed can be secured from the Farm Bureau Seed Department of Lansing, the present rate being approximately \$1.00 a pound in quantity.

Hubam seems to do well on a wide variety of soils, ranging from light lands to heavy clays. Land which is acid should be limed in order to get the best results with Hubam though it seems to grow where red clover will not.

For forage purposes would advise sowing twelve pounds per acre in April or early May, sowing broadcast with a light seeding of oats or barley, not more than one bushel per acre. Suggest trying an acre or so for this purpose, liming the rest of your field and seeding down to good northern-

grown alfalfa seed.—J. F. Cox, Professor of Farm Crops.

SUNFLOWER SILAGE.

I am interested in sunflowers for silage and I would like to know if there is a variety which will mature in ninety or ninety-five days, so that if I plant them when I do my corn, they will be ready to put in the silo the same time as the corn. One end of the field has some quack in it and I thought perhaps I could eradicate this with the sunflowers if they were planted properly and cultivated well.—W. N.

The Russian variety of sunflower will mature fairly well with corn. Sunflowers are proving successful for ensilage purposes, either planted alone or mixed with corn. Where corn gives good yields the sunflower will not take the place of the corn crop. Suggest planting at the rate of four quarts of sunflower seed with four quarts of corn.

In eradicating the part of your field which has quack in it, would plant sunflowers thickly, drilling at the rate of six quarts per acre or planting from six to eight seeds per hill, giving clean cultivation. The somewhat greater shading of the land, due to sunflowers, should help in eradicating quack grass.

TROUBLE OVER MACHINERY.

A. bought a stump machine from B. on a thirty-day free trial, no money down plan. When the machine arrived the cable was broken and so were the castings. A. wrote to B. to make good for the broken parts for which B. did not make good. Now can B. sue A. for not paying for the machine? It was never used, and B. refused to take the machine back. Can A. sue B. for the lost time in which he could have cleared his land if he had the machine repaired. A. has a written guarantee for three years if the machine should break. Can A. ship the machine back to B., C. O. D.?—J. W.

If the goods are materially different from what they are represented by the seller to the buyer to be, the buyer may return them, providing he does so promptly on discovery of the defect. Otherwise he is liable for the purchase price, less the difference between the actual value, and what the value would have been had the goods been as represented. The loss of time, etc., are too speculative to be recovered as damages.—Rood.

COLLECTION OF WAGES.

I was discharged from a company and had six days pay coming to me. I was told to come back on February 18 but I could not get there. Now they offer me six days pay. I refused to take it, being under the impression I could collect for the time I have been waiting for my money. Inform me what steps to take to this matter.—H. E. B.

Compiled Laws 1915 Sec. 5583-5585, provides in such case that the employer shall pay the laborer what is due him the day he leaves the employ, unless computation of the amount due is not possible; and for failure to do so shall be liable to the employee in damages, which the statute fixes at ten per cent of the debt for each day of delay.—Rood.

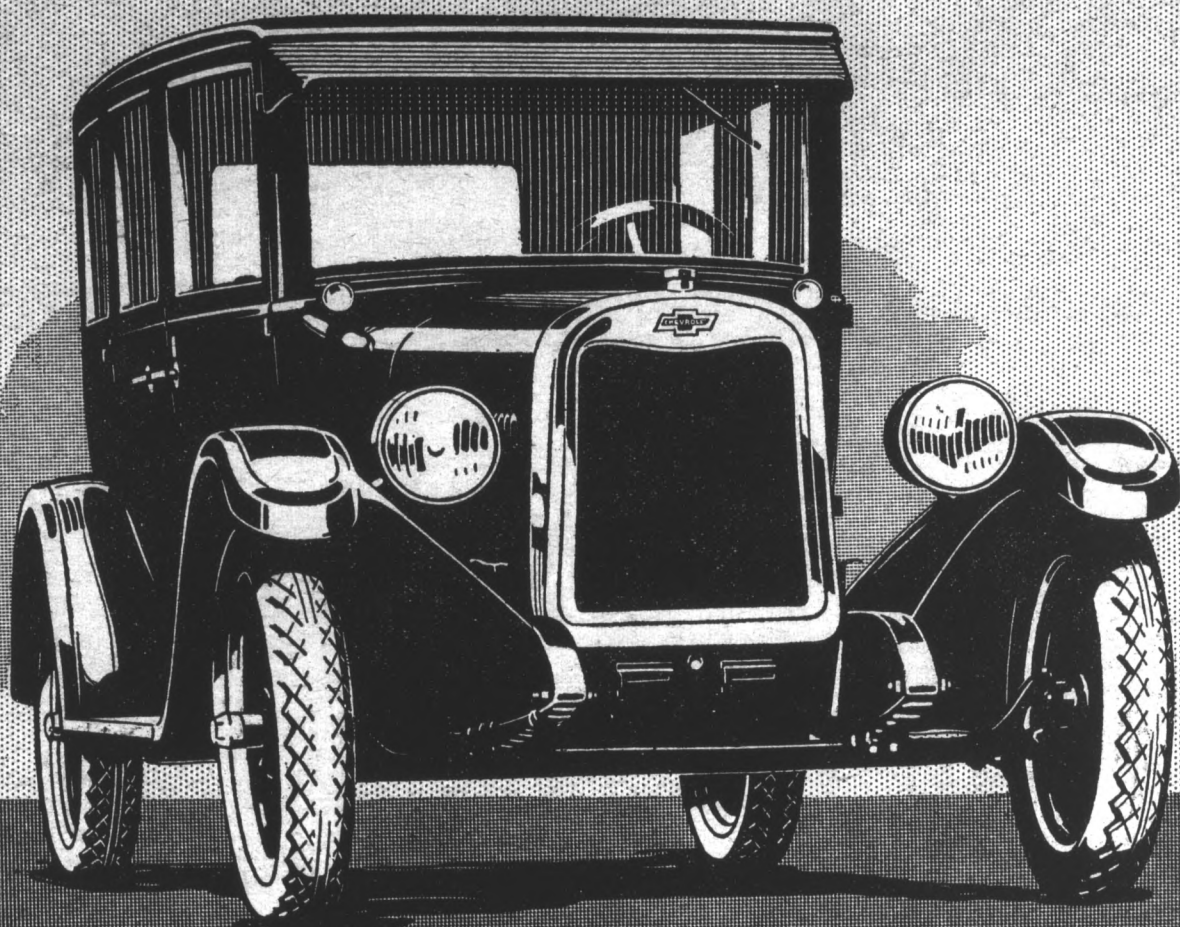
Impressed with the advisability of speeding up the work of the early part of future legislative sessions, the senate passed by a twenty-six to four vote, the proposed amendment to the state constitution, sponsored by Senator Wm. L. Case, of Benzonia, which would limit the sessions to ninety days, but allow for their extension by a two-thirds vote of both the house and senate.

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FURS Lake Land Fur Exchange, Salem Mich. We have special outlets for Muskrats. Write for price list. Will call for lots of over \$500.

PLANS for the study of electric light and power service on Michigan's farms are being made at Michigan Agricultural College as the result of a conference in East Lansing on March 20, of about sixty persons, representatives of farmers, implement manufacturers and public utilities. The conference, upon motion of A. B. Cook, master of the State Grange, by unanimous vote urged the college to conduct the necessary research work in the field to determine the feasibility of farm electrification in Michigan.

Experimental lines in several sections of the state eventually will be studied by the college, it is understood, so that the relation of electricity to all branches of farming in Michigan may be fully determined. The first line, serving twenty-five farms, is located near Parma, Jackson county. The Consumers' Power Company will serve the line.

The conference was something in the nature of an experience meeting, descriptions of farm power lines being given by Professors E. A. Stewart, University of Minnesota, and F. D. Paine, Iowa State College, both of whom are directing experimental work on lines in their states. Mr. Ralph Arbogast, Union City, Michigan, gave a most interesting account of his electrified farm. Dean G. W. Bissell, of the division of engineering, M. A. C., who was chairman of the morning

session, declared he was impressed with the possibilities offered by electricity, and that the college stood ready to do what it could to speed the bringing of electricity to the farm. Hon. Sherman T. Handy, chairman of the Michigan Public Utilities Commission, told the conference of the interest of the commission and of the work done over a period of years to establish a code of practice for rural electrification. Eugene Holcomb, of the Consumers' Power Company, Alma, Michigan, member of the committee on rural service of the National Electric Light Association, declared the utilities were more than willing to co-operate in any movement seeking to find the solution to the problem presented by farm electrification.

The Iowa project, Professor Paine said, embraces sixty-eight farms, somewhat larger than the usual experi-

mentally used should be made as few as possible.

The thoroughness with which the investigation is being conducted was shown when Professor Paine said the project would run "for a minimum period of five years."

The Iowa farmers are scarcely able to wait the conclusion of the experiments before installing equipment themselves, he said. "One farmer told me he would pay \$20 more an acre for a farm which had electric light and power service."

The experiments are not confined to the study of farming methods, Professor Paine said. Home economics is receiving careful attention. Electric ranges, washing machines, ironers, dish washers, vacuum sweepers, water pumping outfits, churns and electric refrigerators are being installed and studied. Each piece of equipment is connected through recording meters.

Professor Stewart, in telling of the work in Minnesota, declared that the utmost speed in carrying out experimentation was to be urged.

"We want to get our work done before farmers become impatient and equip their farms with what may prove to be the wrong apparatus," he said. "Farm electrification is coming, and coming with a rush. We must be ahead of it."

Mr. Ralph Arbogast said that it had got to the place on his farm where he either had to get a new wife or wire his place, adding with a dry smile, "although it seems to be the custom to trade one forty-year-old wife for two twenties," that he did not like the thought of giving up the present Mrs. Abergast.

On his farm, electricity has made farming easier and more profitable, he said. In milking and feed grinding it can be used to advantage. Grinding feed, he asserted, increases its value fifteen per cent.

"The lighting alone allows much more work to be done," he declared. "I figure that men do about ten per cent more work if given good light. Then there is the very important item of reduction in fire hazard. There are, of course, no lanterns to be turned over and set fire to the place."

"My biddies pay all of the cost of the electricity in winter time. By using electric lights in the hen house, we get thirty eggs more a day. At winter prices this figures to about \$112.0 for ninety days, which is enough to pay for the cost of all the electric light and power used on the place in that period. Cows give more milk if the lights are turned on at about one o'clock in the morning for a time so that they can eat and drink."

"In binning my wheat it used to take four husky men five days. At \$3.00 a day, that is \$75 for the season. Now it costs me just \$14, doing the job electrically. In this figure I have taken into account the proper amount for depreciation of the motor and equipment. The same motor also operates the wheat cleaner, the value of which is hard to estimate. It is also good for shifting the grain, which keeps the wheat in uniformly good condition."

"But I believe the greatest benefit which we receive from electricity is in the home. The home has been the most neglected part of the farm, and the most important. Electricity does all of the chores about the kitchen and household now. It is wonderful the work it saves."

"I believe that the problem of farm tenantry will be solved by bringing electricity to the farms. It would make farming so attractive that, instead of moving to town and renting the farms, the owners will continue to operate them. It won't be necessary to move to town in order to live longer."

Secretary Jardine Urges Good Seeds

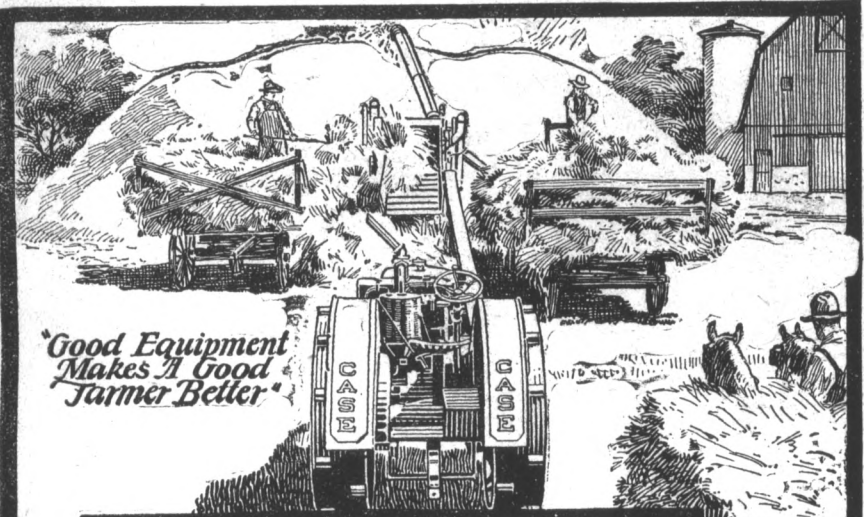
ALTHOUGH farmers are giving an increased amount of attention to marketing problems, in securing seed capable of production of maximum yields of high quality is fundamental to the financial success of the individual farmer. Such yields can be produced only when good seed is used.

"Good seed is crop insurance. To use poor seed is to invite disaster. The safest plan is to use home-grown seed, known to be pure and of good quality. The heavy importation of foreign seed of red clover and alfalfa, much of which is not adapted to the United States, is a reminder of the constant care necessary in securing seed capable of producing a profitable crop."—W. M. Jardine, Secretary of Agriculture.

mental group. More average results, it is believed, will be obtained through observing a greater number of farms. The lines operate at 6,600 volts, single phase, with transformers in most instances right in the yard.

"We have found that it is unsatisfactory to run the low-voltage line any distance at all," Professor Paine said. "We can maintain much better voltage regulation in this way. At first we thought that one large transformer, costing somewhat less per farm, would be sufficient to serve two or three farms. This practice has been abandoned entirely, and individual transformers are provided as near the place where the electricity will be used as is practicable. It is to be remembered that farm lines operate at about fifty per cent efficiency."

The farms are very completely electrified, he said. Records kept of operation on each farm include: First cost, operating charges and maintenance expense. These records are also kept for the line itself. On twelve farms each motor or appliance is equipped with recording demand and watt-hour meters. The study of the records may change present practice considerable, Professor Paine believed. One instance he gave was that of grinding feed. Instead of using a large motor for short periods, he advocated the use of a small motor running longer each day, thus keeping the electric company's power load less variable, and reducing the expense of generating the current. The power company has to be ready to serve all of the equipment on its lines at all times, he explained, and the large motors in-



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A Line on Lime

Many Places Lime is of First Importance in Soil Improvement

By O. B. Price

THIS is the time of the year when the farmer should be getting his lime for spring applications. If alfalfa is to be seeded in the oats or barley it would have been better to have applied the lime last fall, but if that was not done it should be done this spring just as early as possible. This is assuming that the soil is acid, and the majority of the soils in the state are acid. If corn is to be planted this spring and seeded to oats and alfalfa next spring it will be a good practice to apply the lime this spring.

The use of lime on most Michigan soils is just as important as the use of fertilizers, and where both are needed the lime is usually considered first. Besides correcting the acidity of the soil it also renders the plant foods in the soil more available to the growing crops. Lime alone seldom gives much return on any of the grain crops but by increasing the growth of legumes and the fixation of nitrogen in the soil, the succeeding crops are indirectly benefited. It is a poor business practice to go into the field, plow, and prepare a seed-bed for alfalfa and then seed it without first knowing the lime requirement of the soil and correcting it if in need of lime. This practice has resulted in many costly failures and sometimes a discouraging attitude toward the successful growing of alfalfa.

It is a small matter to test the soil or have it tested. The new Soiltest method devised by Professor Spurway, of the Michigan Agricultural College, and now universally used by extension specialists, county agents and farmers, makes it possible for every farmer to know the lime requirements of every field on his farm. By following the recommendations for lime from this test there is little need to worry about results if other safe farming practices have been followed, such as the thorough preparation of the seed-bed, the use of reliable seed and the proper use of fertilizers.

In applying lime it is best to apply it to the surface of plowed ground and work it well into the top two or three inches of the soil while preparing the seed-bed. Experiments covering a long period of time show there is little difference between applying it on the sod and turning it under and the surface application worked into the soil. The effects are more immediate, however, when applied on the top and worked well into the soil, and since the farmer is interested in quick results this is considered best.

The lime needs of Michigan are not confined to any particular type of soil, but as a general rule, the lighter types are the more acid. Sometimes a soil type will show an acid reaction on the surface but down in the soil a foot or two will contain actual lime. Where this condition exists the soil will seldom respond to applications of lime unless a low state of fertility exists. The heavy soils of the lake bed area usually contain sufficient lime, but there are small areas of the light types in this section that are highly acid. As we move westward over the state we find that the acidity is more prevalent.

The use of liming materials is increasing rapidly, due largely to the desire to grow alfalfa. In this way lime is aiding very materially in building up the fertility of the soil and giving the farmer a cheap source of nitrogen for his other crops.

The lack of lime in the soil has been brought about largely by crop removal, leaching, and the use of certain fertilizers. When removed in any case it must be put back by the use of some form of liming material. Ammonium sulphate will produce acidity when used in large amounts, or when used over a period of years. Where

ammonium sulphate is used the acidity should be watched by the use of the Soiltest, and on the lighter types in particular should always be used in connection with lime. These are the types that usually respond best to applications of nitrogenous fertilizers.

The amount of lime to use will depend on the type of soil, the acidity of the soil and the kind and character of liming material used. The Brookston type with an alkaline reaction all the way down does not need lime. The Miami type with a surface soil usually slightly acid but considerable lime present in the subsoil, seldom needs lime except when in a low state of fertility. These two types occupy large areas in the Thumb district and Saginaw Valley and alfalfa and clovers are being successfully grown on them without the use of lime. The soils of the southern and southwestern part of the state, such as the Leslie, Fox, Coloma, Bellefontaine and numerous other minor types usually need lime. By testing the soil the farmer need not guess at the lime requirement or alkaline reaction.

FOREIGNERS USING MORE AMERICAN FARM PRODUCTS.

FIGURES presented by the department of commerce show that our agricultural exports are far above the pre-war level. Foodstuffs exported

from the United States during 1924 increased \$127,028,000 over the figures of the previous year, when they reached valuations of \$978,583,000, according to the department. In 1913 which is used as the basis for pre-war comparisons foreign shipments amounted to \$516,371,000 which is \$242,212,000 below the 1924 totals.

It is shown by the department's figures that a smaller percentage of foodstuffs went to European markets during the past two years and a larger percentage to foreign countries in the western hemisphere and China. Exports of foodstuffs to Germany showed an increase of over fifteen per cent in value in 1924, as compared with 1923.

POTATO PRODUCERS HOLD ANNUAL MEETING.

THE annual meeting of the Michigan Potato Producers' Association will be held at Traverse City, on April 16-17. Among the speakers will be Dr. Kenyon L. Butterfield, of the Michigan Agricultural College; Mr. Carroll F. Sweet, president of the Old National Bank, Grand Rapids, and Mr. K. B. Pocock, of the K. B. Pocock Co., potato brokers of Cleveland, Ohio.

A round-table discussion will feature the session. Selecting and exhibiting show potatoes will be discussed by Ernest Pettifor; grading and loading of certified seed potatoes, by H. B. Losey; cultural methods used in growing high yields of potatoes, by H. E. Parmelee, and hill selection methods, by Fred Schmalzried.

Banquet is to be held on the evening of April 16.

Tentative Bean Grades

Government Hearing to be Held at Lansing April 24

THE following grade specifications are proposed as United States grades for dry edible beans. These proposed grades have been formulated from information obtained by the United States Department of Agriculture in the chief bean producing and marketing centers of the United States. The department has been assisted materially in this work by various State Agricultural Experiment Stations State Departments of Agriculture and trade organizations.

These grades are offered at the present time for consideration and discussion at public hearings. Following these public hearings United States grades may be announced and recommended by the secretary of agriculture, which grades may be used in certifying the quality and condition of beans. Public hearings on the subject of bean grades will be held April 24, 1925, at 10:00 A. M. in the Kerns Hotel, Lansing, Michigan.

The department of agriculture invites constructive suggestions on these bean grades either at the public hearings or by correspondence. Letters should be addressed to the Hay, Feed and Seed Division, Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C., and must be received by May 1, 1925, to receive consideration prior to the announcement of the United States grades.

Tentative Grade Specifications For Beans.

The grade specifications hereinafter shown are proposed tentatively as the United States grades for beans. These grades are not official and are proposed only as a basis for discussion at hearings and conferences to be held during March and April, 1925, in important producing sections and leading markets. Following these hearings the official grades will be announced.

Definitions.

For the purposes of the United States Grades for Beans, the following definitions relating only to beans produced in the Lakes Region are given:

Beans shall include all kinds of beans produced in the Continental United States commonly sold in the dry threshed state and used for edible purposes, as defined under classes of beans, including blackeye, cowpeas characteristic of those varieties grown on the Pacific Coast, and which contain not to exceed ten per cent of foreign material as defined in these standards.

Basis of Determination.—All determinations of factors entering into the grading of beans shall be made on the basis of the original sample.

Percentages, except in the case of moisture, shall be percentages ascertained by weight. Where factor limits are upon the basis of percentages, less than one-tenth of one per cent shall be ignored.

Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Handbook U. S. G. S. A. Form No. 90, revised August, 1924, issued by the United States Department of Agriculture, Bureau of Agricultural Economics, with the following specifications added 150 CC of oil and 100 grams of beans shall be used in the flask and

the flame shall be extinguished at 175 degrees centigrade, or that ascertained by any device and method giving similar results.

Other beans shall include all dry edible beans of a class or classes other than the class of beans in the sample which is being graded. So-called "sports" in Class VII, Red Kidney Beans, and Class VIII, Dark Red Kidney Beans, shall be considered "other beans."

Split beans shall be beans which are split or broken, including pieces up to three-fourths the size of whole beans, but not including beans with cracked or checked skins.

Damaged beans shall be beans which are injured by weather, frost, heat, insects, disease, or otherwise, and shall include beans which are so badly discolored as to appear damaged and seriously affect the appearance and quality of the sample.

Foreign material shall be all matter other than dry edible beans.

Weevily beans shall be beans of any class which are infested with live weevils or other insects injurious to stored beans. Weevily beans shall be graded and designated according to the grade requirements of the grade applicable to such beans if they were not weevily, and there shall be added to and made part of the grade designations the word "weevily."

Classes of Beans.

Beans shall be divided into classes as follows:

Class I, Pea Beans.—This class shall include all white beans commonly referred to as navy or pea beans characteristic of those varieties grown in the Great Lakes region.

Class II, Medium Beans.—This class shall include all white beans commonly referred to as medium beans characteristic of those varieties grown in the Great Lakes region.

Class III, Small White Beans.—This class shall include all white beans characteristic of those varieties grown on the Pacific Coast and commonly referred to as small white beans but shall not include Tepary beans.

Class IV, Large White Beans.—This class shall include all white beans characteristic of those varieties grown on the Pacific Coast and commonly referred to as large white beans.

Class V, Great Northern Beans.—This class shall include all white beans of the Great Northern variety.

Class VI, White Kidney Beans.—This class shall include all varieties of beans of the type known commercially as white kidney.

Class VII, Red Kidney Beans.—This class shall include all varieties of beans of a light red or brown color of the type known commercially as red kidney.

Class VIII, Dark Red Kidney Beans.—This class shall include all varieties of beans of a dark red or mahogany color of the type known commercially as dark red kidney.

Class IX, Marrow Beans.—This class shall include all large white beans commonly referred to as marrow beans.

Class X, Yellow Eye Beans.—This class shall include all varieties or strains of Yellow Eye beans.

Class XI, Brown Swedish Beans.—This class shall include all brown beans commonly referred to as Brown Swedish.

Tentative United States Grades For Beans.

These grades, including here only those of interest to Michigan producers, are not official and are proposed only as a basis for discussion.

U. S. Grade.	General Appearance.	Moisture.	*Other Beans.	Maximum Percentages.		
				Split and Damaged Beans and For. Matrl.		
				Total.	Total.	Rock.
Classes I and II.						
No. 1	Shall be uniform in size and of good color	17	0.0	1.5	0.0	0.0
No. 2	Shall be uniform in size and may be of slightly dull color	17	0.2	3.0	0.1	0.0
No. 3	May be dull or of poor color...	17	0.5	6.0	0.5	0.1
Classes III to V Inclusive.						
No. 1	Shall be uniform in size and of good color	16	0.2	1.5	0.1	0.0
No. 2	Shall be uniform in size and may be of slightly dull color	16	0.5	3.0	0.5	0.1
No. 3	May be dull or of poor color...	16	1.0	6.0	1.0	0.2
Classes VI to XI Inclusive.						
No. 1	Shall be uniform in size and of good color	17	0.0	2.0	0.0	0.0
No. 2	Shall be uniform in size and may be of slightly dull color	17	0.5	4.0	0.5	0.1
No. 3	May be dull or of poor color...	17	1.0	8.0	1.0	0.2

Sample grade consists of beans of the above classes which do not meet the requirements for any of the numerical grades, or which have any commercially objectionable foreign odor or are sour, heating, hot, mouldy, or are otherwise of distinctly low quality.

* An allowance of two per cent in Grade 1, three per cent in Grade 2, and five per cent in Grade 3, shall be made for "Other Beans" in Classes I to XVII inclusive, provided such additional "Other Beans" are similar in shape to and the color blends with that of the beans in the sample being graded. This allowance shall apply also to the so-called "Sports" in Class VII, Red Kidney Beans; and Class VIII, Dark Red Kidney Beans.

NITRATE OF SODA IN SUGAR BEET FERTILIZATION

A Synopsis of Results Obtained from Investigations
Conducted in Michigan in 1922 and 1923

(Reprinted from FACTS ABOUT SUGAR, March 22, 1924)

The investigation, the results of which are summarized in the following article, was commenced in the spring of 1922. Its object, primarily, was to ascertain whether in the culture of sugar beets in Michigan nitrate of soda, applied liberally, would prove as potent a factor as experience has shown it to be in European practice.

In some parts of Michigan the use of commercial fertilizers is little known and their properties less understood. Where used, the fertilizer is too often one almost devoid of nitrogen and consisting chiefly of acid phosphate—typical of many low-grade brands on the market which commend themselves to the purchaser because, being largely phosphatic, they can be sold at a comparatively low price per ton.

Plan of the Experiments

In order to provide conditions which would permit of operations being conducted on a scale consistent with ordinary farm practice, two fields, each 20 acres in area and giving evidence of uniformity in soil conditions, were selected for the two principal experiments. In these it was intended to observe the influence of the fertilizer during the course of a three-year rotation consisting of (1) sugar beets, (2) grain, (3) hay—a rotation conforming to practice approved in the locality. These experimental fields were situated twenty miles apart, one on the farm of W. P. Gavit, at Saginaw, and the other on the farm of Ben O'Toole, at Merrill. The soil on both farms was a clay loam.

ceived no fertilizer treatment, being reserved as a check.

Results of First Yield

The results obtained from the sugar beet crop of 1922, grown on the O'Toole and Gavit farms, appear in Table 1: 1922.

A glance at the data presented in Table 1 shows that in both experiments a remarkable increase in the yield from every fertilized plot was recorded. In this they agree, but differ somewhat in the degree of response shown to the various methods of treatment. On the O'Toole farm the yield from Plot 4 was rather

TABLE 1: 1922

Plot	Fertilizer treatment (lbs. per acre)	Method of application	Yields and Increases per Acre (in lbs.)			
			O'Toole Farm	Gavit Farm	O'Toole Farm	Gavit Farm
1	Nitrate—300 Acid phos.—300 Mur. potash—50	Drilled in prior to seeding	31,282	25,005	6,426	8,195
2	Nitrate—185 Acid phos.—185 Mur. potash—30	Drilled in with seed	27,358	20,330	2,502	3,520
3	Check		24,856	16,810		
4	Nitrate—300 Acid phos.—300 Sul. potash—50	Drilled in prior to seeding	32,340	20,590	7,484	3,780
5	Nitrate—300 Acid phos.—300 Mur. potash—50	Top dressed when blocking	31,100	17,530	6,244	720

larger than that from Plot 1, indicating a slight advantage for sulphate over muriate of potash, whereas on the Gavit farm the position was reversed. It should be stated, however, that a measured acre (fertilized as Plot 1) adjoining Plot 4 on the Gavit farm yielded practically the same as the latter plot. On neither experimental field was a pronounced response to potash fertilizing anticipated, both soils having shown, by analysis, a high potash content. Another contrast is seen in the results following the application of the fertilizer as a top dressing at the time the beets were "blocked." This plot on the Gavit farm produced a very inferior yield—a result no doubt partly attributable to lack of soil moisture adequate for the quick solution of the fertilizers. The corresponding plot on the O'Toole farm at Merrill produced a yield practically identical with that from Plot 1, and in this connection it is noteworthy that a copious rainfall followed almost immediately the top dressing of the fertilizers on Plot 5.

Respecting Plot 2, on which the fertilizers were drilled in with the seed—a method which cannot be generally commended—owing to failure of the seed to germinate within a reasonable time period this plot on the O'Toole farm was harrowed up and reseeded, whereas no perceptible delay—as compared with the other plots—was noticeable in the germination of the seed in Plot 2 on the Gavit farm.

Supplemental Experiment

Further light on this point was furnished in a supplementary 10-acre test on the O'Toole farm at Merrill. In a ten-acre field of a heavy loam soil the fertilizers were applied in the row with the beet seed. Four acres received the same fertilizer as was applied to Plot 1 in the 20-acre field, and on four acres potash was omitted, the balance of the field serving as a check. While germination proceeded rapidly and vigorously on the check plot, it was so seriously retarded on the fertilized areas that these—with the exception of four rows adjoining the check—were harrowed up and reseeded ten days after the date of the first

TABLE 1: 1923

Plot	Fertilizer treatment (lbs. per acre)	Method of application	Yields and Increases per Acre (in lbs.)			
			Somerville Farm	Heinroth Farm	Somerville Farm	Heinroth Farm
1	Nitrate 300		26,104	30,075	4,281	5,556
2	1-8-4 300	Drilled	23,012	27,057	1,189	2,538
3	Nitrate 300	in prior	29,729	32,504	7,906	7,985
4	Unfertilized	to seeding	21,823	24,519		
5	2-12-2 300		25,745	28,897	3,922	4,378
6	*Nitrapo 300		26,075	28,720	4,252	4,201

*Nitrapo material consisting of nitrates of potash and soda, was found on analysis to contain 15 per cent of nitrogen and 9.65 per cent of potash.

seeding. The results are seen in Table 2: 1922.

The results recorded here show, on comparing the yields from Plots 1 (with potash) and 4 (without potash) that no advantage was gained by the use of potash in this instance, though the lower yield on Plot 1 does not necessarily imply that the potash had been detrimental. Further it should be remarked with reference to the behavior of Plot 2—represented by the four rows of the fertilized area not reseeded—that though retarded by the fertilizer in proximity to the seed, germination ultimately took place and a full stand of beets resulted. However, though overcoming substantially the lead of the check plot, the yield from Plot 2 fell far short of that from Plot 1, thus furnishing irresistible evidence in favor of applying active fertilizers apart from the seed, or insuring that they do not come in too direct contact in the soil.

Demonstrations on Smaller Areas

Besides the experiments already described, a number of smaller 2-plot demonstrations were introduced in districts adjacent to Saginaw and Merrill. The results from these are given briefly in Table 3: 1922.

The results, it will be seen, were consistently favorable and need no further explanation. The greatest proportional increase gained from the fertilizing was noted in the experiment on the farm of E. K. Kennedy, Swan Creek, where the soil is a light sandy loam, and the fertilizers were broadcasted as a top dressing after the beet plants had reached the rough-leaf stage. The response to the fertilizing was immediate, and, by reason of the vigorous growth of the beets thereon, the fertilizer plot furnished a striking object lesson throughout the season. As a factor contributing to the success of the first year's experiments one must recognize the favorable weather conditions in the moderately warm, moist summer of 1922. Another factor, which cannot be overlooked, was the helpful, active interest in the work shown by representatives of the Michigan Sugar Co.

EXPERIMENTS IN 1923

Unfavorable weather conditions—a cold May followed by an exceptionally dry June—experienced in the Saginaw district during the season of 1923 influenced yields adversely, so that the tonnage per acre was considerably lower on the average than that of the previous year. Yet, despite these untoward conditions, the returns from the use of nitrate of soda, alone or in conjunction with other fertilizers, have been no less marked, and profitable, than those of the initial year of the investigation.

The scheme of experiment in 1923 was comparatively simple in its nature, being designed rather to demonstrate the proper method of applying the fertilizers and the increase in yield which might be expected from their rational use than to compare the influence of different fertilizers.

In 1923 the scope of the investigation was broadened to include comparisons of single ingredients—also commercial mixtures—and certain combinations thereof, having in view primarily the determination of the individual influence of each. The choice of materials for this purpose was indicated both by local usage and the recommendation of the agricultural college, the former involving the use of the customary 1-8-4 mixture and the latter one of a 2-12-2 formula.

In the two large experiments—on the Somerville and Heinroth farms—nitrate of soda was employed (1) alone, and (3) in conjunction with the 1-8-4 mixture, the 1-8-4 mixture also being applied alone (2). Two other plots were treated with 2-12-2 alone (5) and nitrate of potash and soda ("Nitrapo") alone (6). Plot 4 (check) was unfertilized. The results are shown on Table 1: 1923.

The previous cropping of these areas was as follows: Somerville, pasture in 1921, corn in 1922; Heinroth, hay in 1921, beans in 1922. The Somerville field was lightly manured—

about eight tons per acre—in the fall of 1922; otherwise no manure or fertilizer treatment was given in either instance during the two years preceding that of the experiment. The soils of both areas are described as medium loam. The Heinroth beet crop was declared by common consent the best in the Saginaw district; the records presented in Table 1 show the yields to have been considerably in excess of the average.

A gratifying feature of the results is the marked degree of consistency exhibited in comparing the behavior of corresponding plots in both experiments. The data in Table 1 indicate clearly the influence of the various fertilizers, as measured by the increase over the yield of the check plot. In both instances the highest yield followed the application of nitrate of soda with the 1-8-4 mixture, and

TABLE 3: 1922

RESULTS FROM ACRE OR HALF-ACRE PLOT DEMONSTRATIONS				
Tom Mayer, Merrill. Medium loam				
Plot	Fertilizer treatment (lbs. per acre)	Method of application	Yields per acre, lbs.	Increase over check, lbs.
1	Nitrate 200 Acid Phos. 200	Drilled in with seed but reseeded	30,390	7,250
2	Check			
E. K. Kennedy, Swan Creek. Sandy loam				
1	Nitrate 300 Acid Phos. 300	Broadcasted after beets were up	23,140	11,472
2	Check		18,520	
Geo. H. Wood, Swan Creek. Sandy loam				
1	Nitrate 300 Acid Phos. 300	Drilled in prior to seeding	7,048	6,890
2	Check		29,510	
C. H. Wiltse, Swan Creek. Medium loam				
1	Nitrate 370 Acid Phos. 370	Drilled in prior to seeding	22,620	11,175
2	Check (which had received 125 lbs. 1-8-3 brand)		24,230	
Clifford E. Wiltse, Freeland. Light loam				
1	Nitrate 300 Acid Phos. 300	Drilled in prior to seeding	13,052	4,665
2	Check		24,560	
			19,895	

nitrate alone was much more effective than 1-8-4. That the 2-12-2 mixture proved superior to the 1-8-4 may indicate a greater need for phosphoric acid than for potash, a surmise supported by the results from Plot 6 ("Nitrapo"), which showed no increase over those from plot 1 with nitrate alone.

As a basis for the calculation of profits from the fertilizer treatment, the value of the crop may be taken as \$9 per ton, and the cost of the principal fertilizers as follows: nitrate of soda, \$3.50 a hundred pounds; 1-8-4 mixture \$2.15 a hundred.

Other Demonstrations in 1923

The results of other, small-plot demonstrations conducted in 1923 were as follows:

On the Clay Loam farm of M. Winterstein, Swan Creek, 300 lbs. of Nitrate showed an increase of 4,363 lbs.

On the Heavy Clay Loam farm of M. E. Barkman, Swan Creek, 150 lbs. of Nitrate showed an increase of 2,544 lbs.

On the Medium Loam farm of Murphy Brothers, Freeland, 300 lbs. of Nitrate on Plot 1 showed an increase of 1,720 lbs; 300 lbs. of Nitrate on Plot 3 showed an increase of 3,520 lbs.

On the Clay Loam farm of Robert Caldwell, Saginaw, 300 lbs. of Nitrate showed an increase of 4,994 lbs.

With the exception of one experiment from which a record of the yields was not obtained, the foregoing shows the results of the investigation carried out in 1923.

Certainly there is enough evidence in this article to convince any grower of Sugar Beets that

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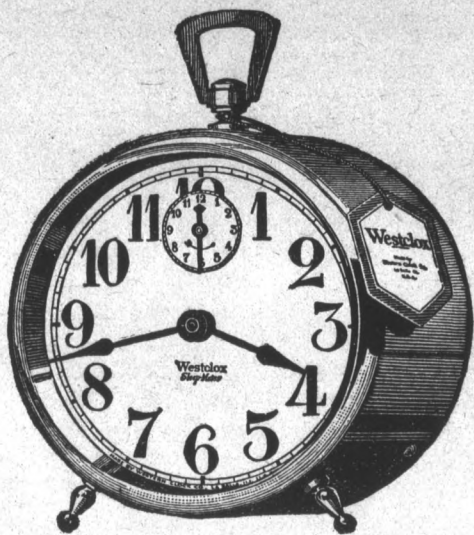
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THE precious daylight hours of early spring belong to outside work. That means getting up before daylight to do the chores and get breakfast.

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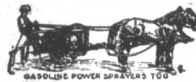
hour to waken you. Cloudy or fair, dark or light, he'll ring you on the dot. That's why you find Big Ben starting the day on so many farms. Other Westclox at other prices. All with the trade mark Westclox on the dial and the six cornered orange bordered buff tag.

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MEAD CYCLE COMPANY
DEPT. 1208 CHICAGO

Varieties for Garden

(Continued from page 455).

Chinese cabbage is a vegetable well worth knowing. It will not properly head in hot weather, but will quickly bolt to seed, hence it is best to sow seed in July. When the plants are well up they may be thinned to stand fifteen inches apart in the row. The variety listed as Wong Bok will make good, solid heads that keep well.

The root crops are alike in that the most of them grow best in cool weather. We should include in our garden at least seven of these, including beets, carrots, parsnip, salsify, turnip, rutabagas and radishes.

Seed for the first crop of beets should be sown in spring when danger of hard frost is over. Succession sowings should be made at later intervals, the last around July 1 so that we may have choice, tender roots for winter storage. Detroit Dark Red is a good variety.

The carrot is another vegetable, seed of which should be planted in succession sowings, as the small tender roots are most desirable. The latest sowing may be made August 1. The variety known as Chantenay is very popular.

The parsnip is a long season crop. Seed of the Hollow Crown variety may be sown around the tenth of May. Salsify is another plant which requires a long season. Sow Mammoth Sandwich Island variety at the same time you sow the parsnip seed.

Turnips are grown mostly as a fall crop. Sow seed August 1. Either the White Egg or the Purple top white Globe may be used.

The rutabaga takes a longer season to mature than does the turnip. Seed should be sown in late June or early July, to get best results, using the variety known as Improved American Purple top.

The radish is one of the old standbys of the home gardener. Seed for the first crop may be sown early in April. Successive sowings should be made at intervals of one week. There are a number of excellent varieties, including Scarlet Globe, and White Tipped Scarlet Turnip, but the one we would especially recommend for the home garden is the Giant Crimson Turnip, as it remains in condition for use much longer than do many of the others.

The onion is the most important of the bulb crops. A few onions should be found in every garden. The crop may be grown from seed or from sets. It will perhaps be desirable to purchase sets for the early green onions, and grow the main crop from seed. Michigan Yellow Globe is a fine variety. Seed should be sown as early as the soil can be worked.

Beans and peas are next on the list. For our purposes beans may be divided into three classes. Those grown for their dry seed. Those grown for tender pods, and Lima beans. The Robust bean is by all odds the best for baking. Sow seed early in June as this variety requires a long growing season.

Of the beans grown for their pods we have two types, the green pod and the wax pod. These may be again divided into round podded and flat podded sorts. Although the market seems to favor the green pod bean, we believe that a good wax podded variety is equal in quality. The first sowing should be made May 15, and later sowings made at intervals of two weeks up to August 1.

Stringless Green Pod, Full Measure and Bountiful, are among the best of the green pods. Pencil Pod Black Wax, Golden Wax, and Sure Crop, are three good wax varieties.

The Lima bean is tender to frost and should not be sown until June 1. The seed should be covered very lightly. While a large seeded variety as the Fordhook Bush Lima may come through and make a crop, it is well to

be on the safe side and sow Henderson Bush Lima. The size is not large, but the quality is excellent, and the growing season is comparatively short, so that they are almost certain to mature.

Peas should be grown in every home garden. There are two distinct types, the round smooth, seeded, and the ones with wrinkled seed. The round seeded sorts are much lacking in quality but as they are more hardy they are often used for the first sowing. It is sometimes possible to sow as early as the latter part of March. The sweet, wrinkled varieties may be sown in early April. The Alaska is a standard, extra early, smooth seeded variety. Little Marvel, Hundredfold and Suttons Excelsior, are especially fine early dwarf varieties. Thomas Laxton is a good second early. Duke of Albany is a fine tall, later sort.

No garden would be complete without a portion of the plot being set aside for tomatoes. Few vegetables can be prepared for use in so many ways. G. W. Carver mentions in his bulletin, 115 ways of preparing the tomato for the table.

Start Tomatoes in Hot-beds.

It is not safe to plant the tomato in the open ground until all danger of frost is over. The plants must be grown in hot-beds from seed sown in March or early April. It is well to use early varieties in this state. Earliana and June Pink are extra early. John Baer is perhaps the best all-round variety for the home garden. Early Detroit is an excellent main crop pink sort.

The pepper is closely related to the tomato, and like this vegetable it thrives best on warm, sandy loams. Seed may be sown in hot-bed, and plants shifted to field around June 1. Harris' Earliest is an excellent variety for the home garden.

The vine crops take up considerable room, but a farm garden is not complete without a few hills of each of the following crops: Cucumbers, muskmelon, watermelon, pumpkin and squash. While these crops differ greatly they are alike in that seed should not be planted until the ground is thoroughly warmed up, which means around June 1.

There are two types of cucumbers, the slicing, and the strictly pickling varieties. Early Fortune is a good slicer, and makes fair pickles. Boston pickling is one of the best of the pickling sorts.

We find all sizes and shapes among the muskmelon varieties. The little Emerald Gem is early and has an exquisite flavor. For a large melon it is difficult to find a better one than a well ripened Osage, although the Tip Top, and the Bender are very close seconds.

We will not go amiss if we plant the Kleckley Sweet Watermelon. The old Peerless is also much in favor as an early variety. Perhaps the best extra early sort is Harris' Earliest.

Some Pumpkins.

A few pumpkins will not take up too much room, and we will appreciate them when made up into pies. Winter Luxury is the sort for the home garden.

In squashes we have two types, the summer and the winter. Many people make a mistake in that they allow the summer squashes to grow too large before using. They should be cooked when very small. Mammoth White Bush Scallop, Giant Crookneck, and Italian Vegetable Marrow, are all desirable. For a winter squash it is difficult to beat the old-fashioned Hubbard, although some of the smaller types, such as the Des Moines, and the Kitchenette are growing in favor. The Delicious is also an excellent variety. There are a number of others which might well be included.

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FARMING IN PALESTINE.

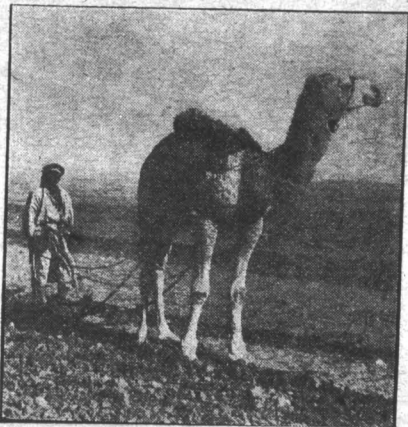
(Continued from page 455).

scratches the surface of the earth and does not turn it. The long handled hoe is used for the cultivating of the land, and as a result of poor seed-bed conditions, the land is very weedy, the same being true of the grain harvested. The crops are cut with a hand sickle and the grain trodden out by cattle on a stone or other type of floor. In addition, the variety of seed sown are extremely poor and naturally unproductive.

In many places the Arab cultivates the land without manure until he exhausts it to such an extent that he is forced to abandon it for a number of years, or until it recuperates somewhat. It is of interest to note that we saw several gleaners in the field. The director of the department of agriculture in a recent report shows the possibilities for improvement by citing the results obtained by a few progressive farmers in a German colony prior to the late war. Their wheat crops range from twenty to thirty bushels per acre, and the barley from thirty to forty bushels per acre.

Modern agricultural implements are being used in several of the Jewish colonies in Palestine. In 1921 there were a total of forty tractors, all of which were made in the U. S. A. Some irrigated regions were productive at one time but have since failed, due to Turkish management. A notable case is the region about Jerico, which was famous formerly for its agricultural products but now the irrigation systems are dilapidated and there is little to be seen here. The city of Jerico is made up of a number of hovels or shacks.

It is also reported that the agricultural progress of Palestine is greatly hampered by the existence of many

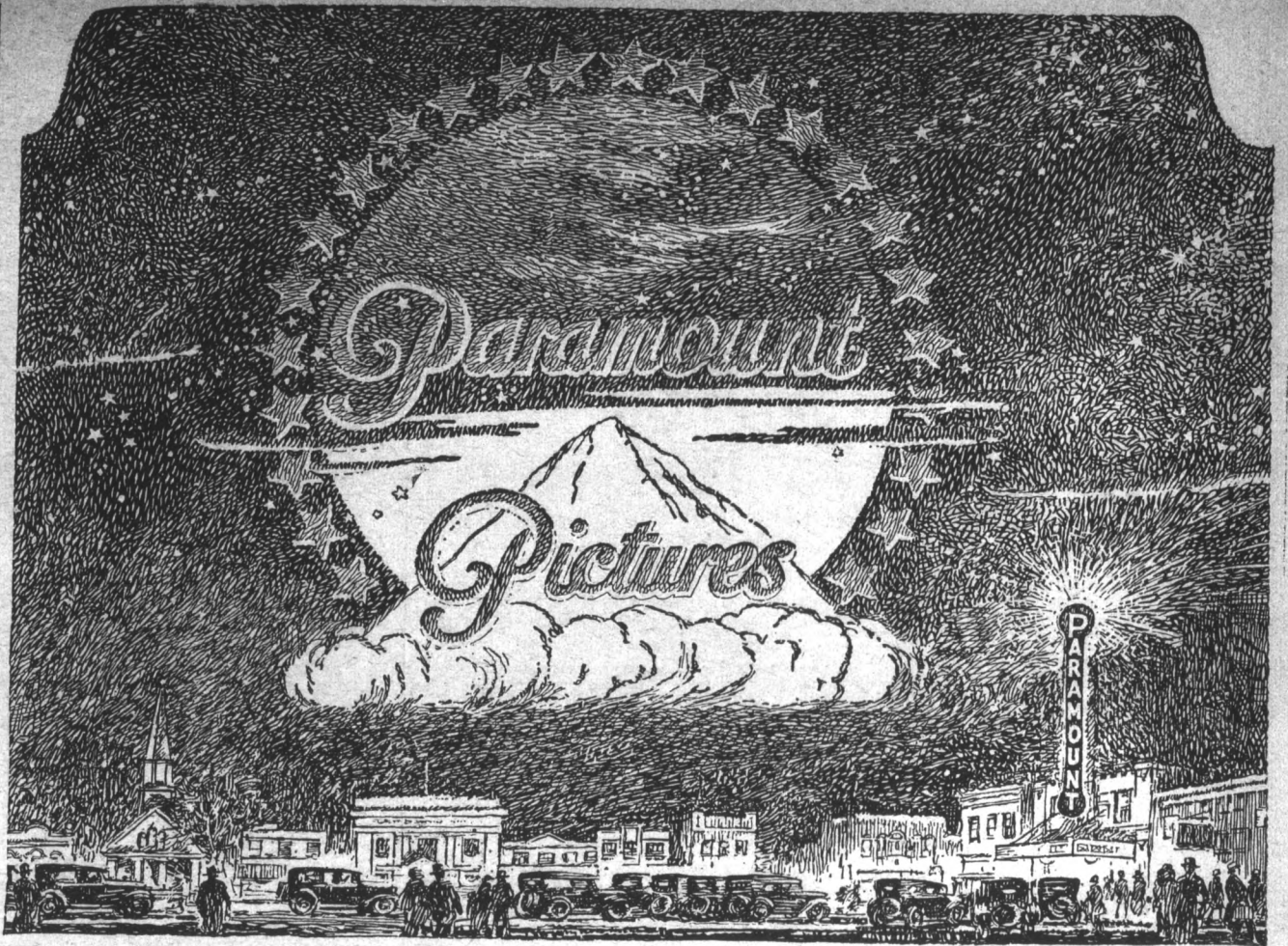


The Type of Tractor Used on the Plains of Sharon. A Good Work Camel is Worth About \$150.

disputed land titles and undetermined boundaries, as well as by other defects in the land system inherited from the Turkish regime. Because of disputed titles, Zionist institutions and individual Jewish colonists are still experiencing difficulties in purchasing land. Even after the completion of a transaction, the right of the owner to sell is frequently questioned by squatters who claim ownership of the land they cultivate, with resulting delay in throwing open large areas for intensive cultivation. When land is purchased in Palestine everything on it must be specified in the deed. A well, trees or a cave on land, if it were not so stated in the deed, would not go with the land and the purchaser would be in a difficult position. The title system is made use of in taxing the land; it runs twelve and one-half per cent of the gross produce, and is said to be a very unsatisfactory method of taxation.

The cost of production and the net proceeds from one acre of wheat in 1921 were as follows: Plowing, 75c; seed 93c; sowing, 30c; harvesting and transportation, 87c; threshing and winnowing, 75c, and tithe or tax, 12½ per cent of the gross receipts, or \$1.35. The gross receipts were \$10.95 and the net profit \$6.15.

For potatoes the same year the cost



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The Spanish Dancer
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Betty Bronson
who played Peter Pan.
Everyone from eight to
eighty ought to see this
picture. Mothers',
clubs, schools, churches
should get back of it.
Tell your theatre manager
to get it as soon
as possible.



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who starred in
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who appeared in
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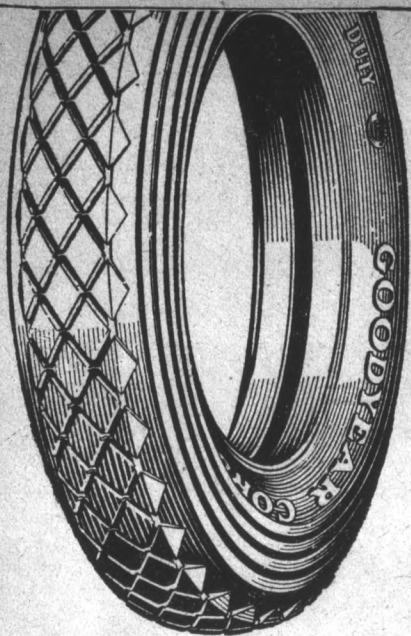
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For those who desire balloon tires Goodyear makes a complete line, including the **HEAVY DUTY** type in certain sizes

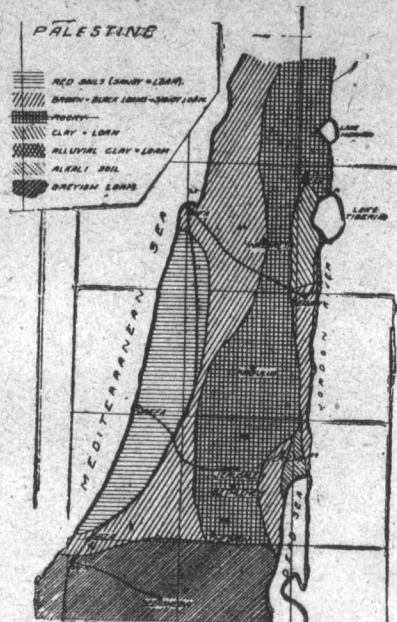
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of production and the net proceeds from one acre were as follows: Plowing, 75c; sowing and ridging, 94c; seed, \$25; hoeing 75c; digging \$2.10, and tithe, \$11.67, making the total cost of production \$41.21. The selling price of 152 bushels of potatoes was 53, re-



One of the Very Few Soil Maps of Palestine.

sulting in a net profit of \$11.80.

The live stock situation in Palestine is very unsatisfactory, not only for the number marketed, but for the quality, which is extremely inferior. Besides, numerous diseases are troublesome. The cows and heifers are used to draw the plow and hence, there is no such thing as dairy farming, ac-

cording to our conception. The grade of dairy and beef cattle, wool producing sheep, horses, mules and donkeys is so low that they are useless for a modern system of farm management. The wool produced is not satisfactory for purposes other than carpet making. The contagious diseases referred to above may be widely spread by the bedowie as they drive their flocks from one place to another seeking pasture.

The price of several of the domestic animals in Jerusalem in 1921 may be of interest. A good working ox sold for \$110; a steer for slaughter, \$45; a buffalo for milking purposes, \$320; a sheep for slaughter, \$18; a camel for slaughter, \$75; a camel for transportation, \$150; and a general purpose horse, \$150. In that same year the total number of the different kinds of live stock were estimated to be as follows: Cows, 24,681; plowing oxen, 57,785; horses, 6,548; mules, 3,934; donkeys, 36,684; sheep, 205,967; goats, 305,912; buffalos, 615; camels, 8,446. This great shortage was alleviated somewhat by importations from foreign countries.

We saw an interesting method of marketing poultry in Palestine. One morning as we came from our hotel and entered David Street we saw an old woman scootched down on the sidewalk waiting for a customer. She held an old speckled hen by means of a string fastened to the hen's leg. Fastened to the old hen in turn by means of strings were several small chicks. We at once concluded that some of the Michigan poultrymen are more modern in their methods of marketing their products.



PRICES TOO LOW.

THE past winter has been unprofitable for the dairy farmers of Gogebic county, according to the report of the cow testing association of that county. Butter-fat has been bringing thirty-eight to forty cents per pound up to March 1, when an advance was registered. At these prices there is nothing in it for the dairyman, it is reported. The condition is said to be general, however. County Agent C. E. Gunderson advises his farmers to meet the situation as far as they can by better breeding and feeding practices and by growing more legume hay, including alfalfa and clover.

WOULD CLEAR MORE LAND.

URGING his farmers to buy more war salvaged explosives at the current price of \$8.25 per hundred pounds, County Agent Carl Knaus, of Menominee county, points to the fact that there are on an average, only forty-five acres of cleared land per farm in that county, which means that some of these farms have less than that amount, which is insufficient to support the family and live stock on the farm. It requires approximately three acres of land to support one head of live stock, says the agent; so he estimates that the forty-acre farm can support only one team, 100 chickens and seven cows. Thus to support and educate his family some additional means of support is required. In May there will be put on three or four land-clearing demonstrations in that county.

SENDS BURBANK SEED TO COLORADO.

THROUGH James Weston, M. A. C. potato specialist, an order was recently placed with a Dickinson county farmer for four bushels of Idaho Russet Burbank certified seed potatoes for shipment to the Colorado Potato Grow-

ers' Exchange. It was stated that this farmer was the only one in Michigan in a position to furnish seed of this variety. The price paid was four dollars per hundredweight. It is hoped that this shipment will lead to sufficient quantities of these potatoes being produced in Dickinson county to permit carload shipments to the west where there is a demand for them. Minnesota farmers usually fill these orders, it is stated.

GIVES ADVICE ON RETAILING POTATOES.

TO promote the sale of Upper Peninsula potatoes to the retail trade, a Marquette county potato producer makes the following suggestion to the Upper Peninsula Development Bureau. The potatoes should be handled in a good container suited to household requirements, holding from thirty to sixty pounds. Mark the containers with a Cloverland brand mark, with the grading according to the standards required by law. The container and the Cloverland brand would eventually help to establish a good market for our best grades of potatoes, it is believed. Along this line it is pertinent to remark that outside shippers regularly supply the Upper Peninsula market with apples in this way. The apples are each wrapped in tissue paper, boxed carefully and sold in unbroken lots to the consumer who seems to be willing to pay a high price for them. Potatoes might have the same treatment.

FILM USED IN FARMER MEETINGS.

IRON county is furnishing its county agent and club leader a film machine for use in rural meetings. In late February seven such meetings were held whose attendance averaged over fifty. These films relate to club camps, poultry work and the story of a dairy cow that made good.

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Radio Department

RADIO BRIEFS.

THE various parts of any radio set work to best advantage when they are clean and bright. A dull surface usually means that corrosion has taken place which offers resistance to high-frequency radio currents. As radio currents travel on the surface of wires or other connections, it will usually pay to brighten up the metal parts of the receiving set at regular intervals.

* * *
Use Care With Tubes.

When you place the tubes in their sockets be careful how you handle them. Many tubes are injured through rough usage. The tube will not stand the rough treatment given it by many folks. The tips may be broken, resulting in poor contacts. Do not take the tubes out of the sockets any more than is absolutely necessary. It is always best to turn off both the A and B battery current before installing or removing tubes from the set.

* * *
Cause of Noises.

When your receiving set hums and cracks it may not always be due to static, although static is usually blamed. It may be due to the aerial running parallel with outside high tension wires; the grid condenser touching the cabinet; ground and plate leads parallel; leaking alternating current transformer nearby; electric motors running; street car induction; X-Ray machines in operation; run-down batteries, or it may after all be due to static disturbances in the atmosphere.

* * *
Look Out For Fire.

Any flame brought near a storage battery while it is charging may result in a serious explosion which can prove fatal. At least it can damage anything near the battery. If necessary to look into a battery, use an electric flashlight or move the battery to the light.

* * *
Tightening Binding Posts.

A loose binding post on a panel may be securely fastened by the use of small lock-nut washers which may be put under the nut at the rear of the panel before the nut is tightened down.

* * *
Switch Blade Stop.

An excellent switch stop can be made from an ordinary soldering lug. These may be procured either in plain copper finish or tinned. The tinned lug will look better when used with nickel plated switch points. Cut the two tapes off the ends of the soldering lugs and place the lug under the last switch points. Tighten up the nut and bend the lug arm upward. It will protrude just far enough above the point to stop the switch from riding off the contact.

* * *
Overheated Charger.

If the storage battery is charged at home it should be watched carefully to avoid heating. If the battery becomes hot, disconnect it from the charging unit at once as this indicates a too rapid charging rate. If possible, reduce the rate. This can be done by connecting another battery in series with the original battery and charging two instead of one. If this is impossible, it would be well to write to the manufacturer of your charger and ask how the charging rate may be reduced.

* * *
Colleges Are Broadcasting.

Nearly one hundred American colleges and universities maintain and operate broadcasting stations while other schools have arrangements with various stations to have teachers and other faculty members broadcast lectures and courses of instruction.

The ALPHA Dealer of your Community has a lot of helpful information on Cement improvements



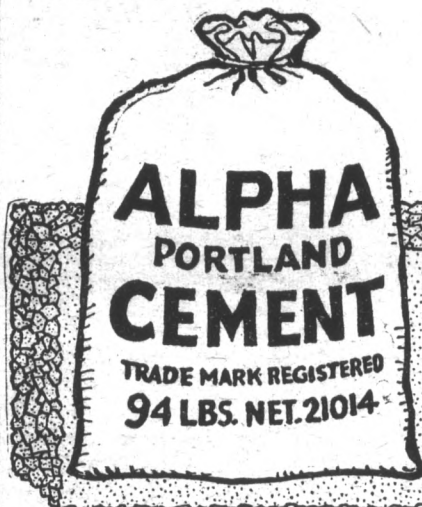
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Corn Borer Needs Attention

Must Not Under Estimate the Damage the Pest Can Do

By L. R. Taft

At a recent conference of state entomologists and horticultural inspectors held at Purdue University, several points were brought out regarding the European corn borer that will interest every corn grower.

The European corn borers in the infested areas in Michigan, Ohio, and Northwestern Pennsylvania have doubtless come from Ontario, Canada, where they were introduced with broom corn from Hungary some twelve years ago. In 1923, the most damage in Ontario was done in the counties bordering on Lake Erie, but in 1924, the injury was greater in Essex and Kent counties on the eastern side of the Detroit river, where the percentage of infested plants increased from one per cent in 1923 to averages of forty and sixty per cent respectively in 1924.

As indicating the amount of injury

in certain fields where corn borers were found in practically every plant, the experience of one corn grower who has generally cribbed about 1,200 bushels, was cited. In 1924, with practically the same acreage, the crop was only 262 bushels, and of this, an average of twenty-one corn borers were found in each bushel of corn.

Up to the present time, the number of corn borers found in any field in Michigan has been less than one per cent of the stalks, and the injury actually done has been negligible, but with a possibility of an increase of 6,000 per cent in one season, as was the case in 1924 just across the river in Ontario, corn growers in the infested areas in Michigan should take steps to ward off the attack and prevent the spread of the European corn borer.

Use Early Maturing Varieties.

The methods which were reported as lessening the injury are the use of early maturing, yet productive sorts, and delaying the planting to June 1 or later. The number of eggs laid by the European corn borer moth is always much greater on corn planted in May than when the planting is delayed until June. If the corn is cut before the middle of September and placed in a silo, very few corn borers will be left in the butts, provided the corn is cut within four or five inches of the ground. The fermenting of the silage will generate sufficient heat to kill all of the borers.

If the corn is fed out without being made into ensilage, the same rules regarding the early and low cutting should be observed, and if possible the corn should be fed in a lot where all of the stalks or cobs which are not eaten can be gathered and burned by the middle of May. It would be helpful, by increasing the proportion of the stalks eaten, if the corn is shredded. This, of course, will of itself kill many of the worms.

Especially if the cutting of the corn is delayed until after the middle of September, or if it is cut at a height greater than six inches, many of the worms will be left in the butts, and will breed and spread the following year. Fall plowing and the burying of the borers to the depth of six inches will kill many of the borers. Beneficial results have also been noted from spring plowing, but in either case the results will be negligible unless the stalks and butts are actually buried.

Silos Will Help.

In most sections of Michigan, the general use of silos will help to simplify the work of controlling the European corn borer, since if late planting and early harvesting are also practiced, very little injury will be done. The difficulty will come from the careless farmers who do not own a silo and who neither plant late or harvest early. Unless they destroy the uneaten stalks and cobs and plow under the corn butts, borers will transform into the moths which will spread in great numbers over the fields of the neighbors, many of whom have doubtless taken steps to eradicate the corn borer from their premises, and serious injury may be done to corn fields that would have suffered practically no injury.

In order to secure a general clean-up of the European corn borer, a bill has been introduced in the legislature giving the State Department of Agriculture authority to formulate and enforce the needed regulations, and appropriating the sum of \$25,000 for 1925 and the same amount for 1926, to be used for carrying on scouting, quarantine and demonstration work. If this is provided the cooperation of the Federal Department of Agriculture will be secured and an additional \$35,000 will be available.

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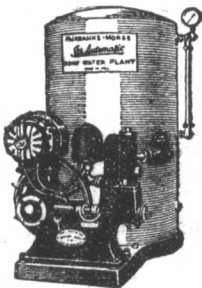
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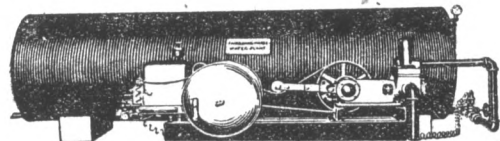
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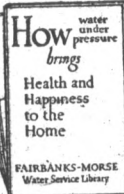
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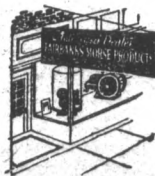


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WORLD EVENTS IN PICTURES



These costumes made entirely of raffia, won prizes at Madrid's Mardi Gras.



Prof. M. R. Herrington (holding boy), director of expedition, with members of his party, have made excavations in southern Nevada, revealing a pre-historic city 10,000 years old.



The actual metal from newsboys' pennies will make a statue of Laddie Boy, White House pet.



Members of one of the scores of pilgrimage parties from nearly every country of the world, in Rome for the celebration of the Holy Year, entering St. Peter's to visit the Holy door.



This is what federal agents discovered in Kansas City, Missouri, when they dug into outside layers of sacks of crushed oyster shells—scores of cases of the finest Scotch whiskey.



Luther Burbank, famous naturalist, is much interested in harnessed geysers that run steam turbines to furnish "free" electricity.



Dr. Gilbert Fitz-Patrick, famous surgeon, foresees average human life span to be 100 years.



A. E. Lefcourt, New York realtor, hands his son, age 13, deed to property on Madison Avenue valued at \$10,000,000.



General Pershing was received by Governor Barcelo at Governor's palace, Santiago De Cuba. From right to left, General Pershing, Gov. Barcelo, Brigadier-General Herrera of the Cuban Army.



A trip to the top of Eiffel Tower in Paris is a bit scary for some folks, but merely mildly interesting to these Lamas from Tibet, used to the giddy heights of the Himalayas.

NOW, in his doorway, he eyed the spare little figure that appeared before him all in rusty black, with its strained, anxious face, its great deep-sunk eyes.

"DeJong, eh? Sorry to hear about your loss, ma'am. Pervus was a fine lad. No great shakes at truck farming, though. His widow, h'm? Hm." Here, he saw, was no dull-witted farm woman; no stolid Dutch woman truckster. He went out to her wagon, tweaked the boy's brown cheek. "Wa-al now, Mis' DeJong, you got a right smart lot of garden stuff here and it looks pretty good. Yessir, pretty good. But you're too late. Ten, pret' near."

"Oh, no!" cried Selina. "Oh, no! Not too late!" And at the agony in her voice he looked at her sharply.

"Tell you what, mebbe I can move half of 'em along for you. But stuff don't keep this weather. Turns wilted and my trade won't touch it . . . First trip in?"

She wiped her face that was damp and yet cold to the touch. "First—trip in." Suddenly she was finding it absurdly hard to breathe.

He called from the sidewalk to the men within: "George! Ben! Hustle this stuff in. Half of it. The best. Send you check tomorrow, Mis' DeJong. Picked a bad day, didn't you, for your first day?"

"Hot, you mean?"

"Wa-al, hot, yes. But I mean a holiday like this pedlers mostly ain't buying."

"Holiday?"

"You knew it was a Jew holiday, didn't you? Didn't!—Wa'al, my sakes! Worst day in the year. Jew pedlers all at church today and all the others not pedlers bought in Saturday for two days. Chicken men down the street got empty coops and will have till tomorrow. Yessir. Biggest chicken eaters, Jews are, in the world . . . Hm . . . Better just drive along home and just dump the rest of that stuff, my good woman."

One hand on the seat she prepared to climb up again—did step to the hub. You saw her shabby, absurd side-boots that were so much too big for the slim little feet. "If you're just buying my stuff because you're sorry for me—" The Peake pride.

"Don't do business that way. Can't afford to, ma'am. My da'ter she's studying to be a singer. In Italy now, Carline is, and costs like all get-out. Takes all the money I can scrape together, just about."

There was a little color in Selina's face now. "Italy! Oh, Mr. Talcott!" You'd have thought she had seen it, from her face. She began to thank him, gravely.

"Now, that's all right, Mis' DeJong. I notice your stuff's bunched kind of extra, and all of a size. Fixin' to do that way right along?"

"Yes. I thought—they looked prettier that way—of course vegetables aren't supposed to look pretty, I expect—" she stammered, stopped.

"You fix 'em pretty like that and bring 'em in to me first thing, or send 'em. My trade, they like their stuff

kind of special. Yessir."

As she gathered up the reins he stood again in his doorway, cool, remote, his unlighted cigar in his mouth, while hand-trucks rattled past him, barrels and boxes thumped to the sidewalk in front of him, wheels and hoofs and shouts made a great clamor all about him.

"We going home now?" demanded Dirk. "We going home now? I'm hungry."

"Yes, lamb." Two dollars in her pocket. All yesterday's grim toil, and all to-day's, and months of labor behind those two days. Two dollars in the pocket of her black calico petticoat.

cool and quiet the house would seem. The squares of the kitchen tablecloth. Her own neat bedroom with the black walnut bed and dresser. The sofa in the parlor with the ruffled calico cover. The old chair on the porch with the cane seat sagging where warp and wool had become loosened with much use and stuck out in ragged tufts. It seemed years since she had seen all this. The comfort of it, the peace of it. Safe, desirable, suddenly dear. No work for a woman, this. Well, perhaps they were right.

Down Wabash Avenue, with the L trains thundering overhead and her horses, frightened and uneasy with the

SO BIG—By Edna Ferber

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TO THE CROW

By C. A. Brunais

Wind's a bitin' as it whistles by my ear,
Seems like Spring's mighty slow 'gain
this year,

For with them drifts piled mountain
high

And with that color in the sky

Ain't no prospect of warm weather
yet awhile.

As you sit in that old clump of maple
trees

With your tail a-floppin' fan-like in
the breeze,

I can tell just by your cawin'

That you're lookin' for a thawin'

And I'm bettin' you will miss it by a
mile.

Ain't no profit in it though for you
nor me

Arguin' now's t'what the weather's
goin' t'be,

For what's a-comin' as our due

Will come in spite of me and you

And all the hollerin' we can do t'
change its route.

Yet,—the drifts don't look so big's
yesterday,

Even seems as though the sky's a bit
more gay,—

Just the sound of your old cawin'

Makes me think it is a thawin',

Bless my soul! I b'lieve the sun's a-
comin' out!

"We'll get something to eat when we
drive out a ways. Some milk and
bread and cheese."

The sun was very hot. She took the
boy's hat off, passed her tender work-
calloused hand over the damp hair that
clung to his forehead. "It's been fun,
hasn't it?" she said. "Like an adventure.
Look at all the kind people we've
met. Mr. Spanknoebel, and Mr. Tal-
cott—"

"And Mabel."

Startled, "And Mabel."

She wanted suddenly to kiss him,
knew he would hate it with all the boy
and all the Holland Dutch in him, and
did not.

She made up her mind to drive east
and then south. Pervus had sometimes
achieved a late sale to outlying gro-
cers. Jan's face if she came home
with half the load still on the wagon!
And what of the unpaid bills? She
had, perhaps, thirty dollars, all told.
She owed four hundred. More than
that. There were seedlings that Per-
vus had bought in April to be paid for
at the end of the growing season, in
the fall. And now fall was here.

Fear shook her. She told herself she
was tired, nervous. That terrible
week. And now this. The heat. Soon
they'd be home, she and Dirk. How

unaccustomed roar and clangor of traf-
fic, stepping high and swerving stiffly,
grotesque and angular in their move-
ments. A dowdy farm woman and a
sunburned boy in a rickety vegetable
wagon absurdly out of place in this
canyon of cobblestones, shops, street-
cars, drays, carriages, bicycles, pedes-
trians. It was terribly hot.

The boy's eyes popped with excite-
ment and bewilderment.

"Pretty soon," Selina said. The mus-
cles showed white beneath the skin of
her jaw. "Pretty soon. Prairie Ave-
nue. Great big houses, and lawns, all
quiet." She even managed a smile.

"I like it better home."

Prairie Avenue at last, turning in at
Sixteenth Street. It was like calm af-
ter a storm. Selina felt battered, spent.

There were groceries near Eight-
eenth, and at the other cross-streets—
Twenty-second, Twenty-sixth, Thirty-
first, Thirty-fifth. They were passing
the great stone houses of Prairie Ave-
nue of the '90s. Turrets and towers,
cornices and cupolas, hump-backed
conservatories, porte-cocheres, bow
windows—here lived Chicago's rich
that had made their riches in pork
and wheat and dry goods; the selling
of necessities to a city that clamored
for them.

"Just like me," Selina thought hu-
morously. Then another thought came
to her. Her vegetables, canvas cov-
ered, were fresher than those in the
near-by markets. Why not try to sell
some of them here, in these big hous-
es? In an hour she might earn a few
dollars this way at retail prices slight-
ly less than those asked by the grocers
of the neighborhood.

She stopped her wagon in the mid-
dle of the block on Twenty-fourth
Street. Agilely she stepped down the
wheel, gave the reins to Dirk. The
horses were no more minded to run
than the wooden steeds on a carousel.
She filled a large market basket with
the finest and freshest of her stock
and with this on her arm looked up a
moment at the house in front of which
she had stopped. It was a four-story
brownstone, with a hideous high stoop.
Beneath the steps were a little vesti-
bule and a door that was the trades-
men's entrance. The kitchen entrance,
she knew, was by way of the alley at
the back, but this she would not take.
Across the sidewalk, down a little
flight of stone steps, into the vestibule
under the porch. She looked at the
bell—a brass knob. You pulled it out,
shoved it in, and there sounded a jang-
ling down the dim hallway beyond.
Simple enough. Her hand was on the
bell. "Pull it!" said the desperate Se-
lina. "I can't! I can't!" cried all the
prim dim Vermont Peakes, in chorus.
"All right. Starve to death and let
them take the farm and Dirk, then."

At that she pulled the knob hard.
Jangle went the bell in the hall. Again.
Again.

Footsteps up the hall. The door op-
ened to disclose a large woman, high
cheek-boned, in a work apron; a cook,
apparently.

"Good morning," said Selina. "Would
you like some fresh country vegeta-
bles?"

"No." She half shut the door, open-
ing it again to ask, "Got any fresh
eggs or butter?" At Selina's negative
she closed the door, bolted it. Selina,
standing there, basket on arm, could
hear her heavy tread down the pas-
sageway toward the kitchen. Well,
that was all right. Nothing so ter-
rible about that, Selina told herself.
Simply hadn't wanted any vegetables.
The next house. The next house, and
the next, and the next. Up one side
of the street, and down the other.
Four times she refilled her basket. At
one house she sold a quarter's worth.
Fifteen at another. Twenty cents here.
Almost fifty there. "Good morning,"
she always said at the door in her
clear, distinct way. They stared, usu-
ally. But they were curious, too, and
did not often shut the door in her face.

"Do you know of a good place?" one
kitchen maid said. "This place ain't
so good. She only pays me three dol-
lars. You can get four now. Maybe
you know a lady wants a good girl."

"No," Selina answered. "No."

At another house the cook had of-
fered her a cup of coffee, noting the
white face, the look of weariness. Se-
lina refused it, politely. Twenty-first
Street—Twenty-fifth—Twenty-eighth.
She had over four dollars in her purse.

AL ACRES—Slim Says It's His Turn to Take a Vacation

By Frank R. Leet



Dirk was weary and hungry to the point of tears. "The last house," Selina promised him, "the very last one. After this one we'll go home." She filled her basket again. "We'll have something to eat on the way, and maybe you'll go to sleep with the canvas over you, high, fastened to the seat like a tent. And we'll be home in a jiffy."

The last house was a new gray stone one, already beginning to turn dingy from the smoke of the Illinois Central suburban trains that puffed along the lake front a block to the east. The house had large bow windows, plump and shining. There was a lawn, with statues, and a conservatory in the rear. Real lace curtains at the downstairs windows with plush hangings behind them. A high iron grille ran all about the property giving it an air of aloofness, of security. Selina glanced at this wrought-iron fence. And it seemed to bar her out. There was something forbidding about it—menacing. She was tired, that was it. The last house. She had almost five dollars, earned in the last hour. "Just five minutes," she said to Dirk, trying to make her tone bright, her voice gay. Her arms full of vegetables which she was about to place in the basket at her feet she heard at her elbow:

"Now, then, where's your license?"

She turned. A policeman at her side. How enormously tall, she thought, and how red his face. "License?"

"Yeh, you heard me. License. Where's your peddler's license? You got one, I s'pose."

"Why, no. No." She stared at him, still.

His face grew redder. Selina was a little worried about him. She thought, stupidly, that if it grew any redder—

"Well, say, where d'ye think you are, peddlin' without a license! A good mind to run you in. Get along out of here, you and the kid. Leave me ketch you around here again!"

"What's the trouble, Officer?" said a woman's voice. A smart open carriage of the type known as a victoria, with two chestnut horses whose harness shone with metal. Spanking, was the word that came to Selina's mind, which was acting perversely, certainly crazily. A spanking team. The spankers disdainfully faced Selina's comic bony nags which were grazing the close-cropped grass that grew in the neat little lawn-squares between curb and sidewalk. "What's the trouble, Reilly?"

The woman stepped out of the victoria. She wore a black silk Eton suit, very modish, and a black hat with a plume.

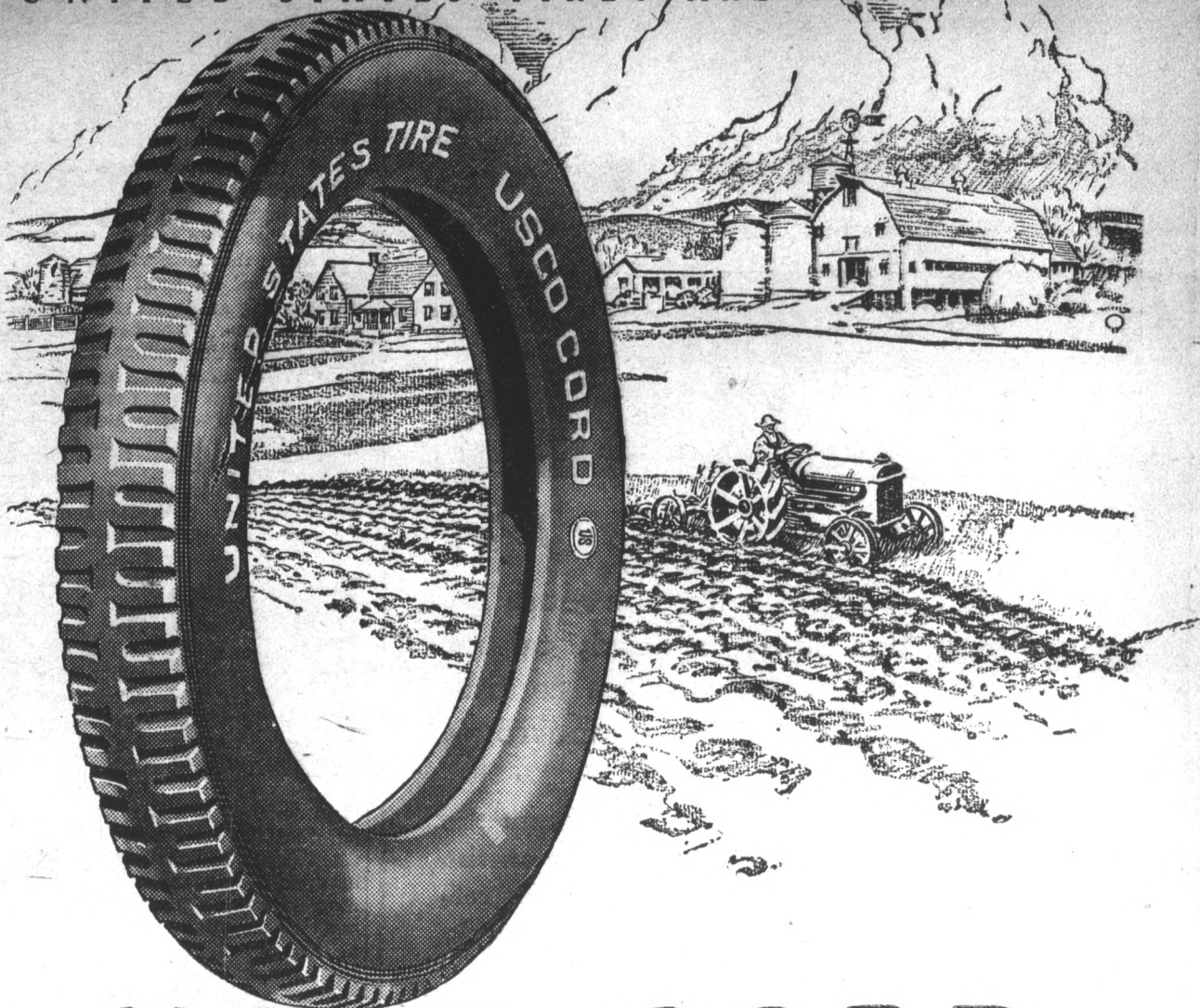
"Woman peddling without a license, Mrs. Arnold. You got to watch 'em like a hawk. . . . Get along with you, then." He put a hand on Selina's shoulder and gave her a gentle push.

There shook Selina from head to foot such a passion, such a storm of outraged sensibilities, as to cause street, victoria, silk-clad woman, horses, and policeman to swim and shiver in a haze before her eyes. The rage of a fastidious woman who had an alien male hand put upon her. Her face was white. Her eyes glowed majestic even.

"Take your hand off me!" Her speech was clipped, vibrant. "How dare you touch me! How dare you! Take your hand!" The blazing eyes in the white mask. He took his hand from her shoulder. The red surged into her face. A tanned weather-beaten toil-worn woman, her abundant hair skewered into a knob and held by a long gray-black hairpin, her full skirt grimed with the mud of the wagon wheel, a pair of old side-boots on her slim feet, a grotesquely battered old felt hat (her husband's) on her head, her arms full of ears of sweet corn, and carrots, and radishes and bunches of beets; a woman with bad teeth, flat breasts—even then Julie had known her by her eyes. And she had known her by her eyes. And she

(Continued on page 475).

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Pentecost

Our Weekly Sermon—By N. A. McCune

PENTECOST was one of the important festivals of the Jews. On the fiftieth day after the second day of the Passover feast, Pentecost was celebrated. It was a grain festival, a thanksgiving for the harvest. Offerings of grain and fruit were made as a token that God was recognized as the Giver of all good things. There was dancing and merrymaking. It was a joyous time. It commemorated also the giving of the law by Moses, on the fiftieth day after leaving Egypt. It was at the time of this feast, following the death of Christ, which had taken place at the Passover, that the Holy Spirit was given.

One of the last commands of Christ was, that the disciples should wait for heavenly power to come upon



them, before going out to spread the Good News. That such power was needed is easily seen. We often speak of following Christ. And to follow Christ is well, but the follower, if he is in earnest, soon learns that following Christ is no summer holiday. He often loses interest, finds the way hard, falls into sin which discourages him, concludes that he "can't hold out," as he puts it, and gives up. If he had not tried so hard, he would have gotten along better. If he had learned to lean on the inner Spirit, had been more passive, less strenuous, he would probably have traveled farther. Now, it was this inner Spirit that was needed.

TO follow Christ is good, but we require something within us that gives energy and life, to keep us going. The food consumed is digested and provides heat and energy for the body. But this food is of no use until it is eaten. To stand in front of a bakery window and look at loaves of bread and the pies does not feed the hungry man. These good things must be taken into the body. And the Spirit of God, of Christ, must also be taken within. It is the indwelling spirit that makes the difference. The Holy Spirit, Christ's representative, comes in and dwells in the soul, giving life, spiritual energy, which means, love and light and all that go with it. This Holy Spirit had been in the world before this time, undoubtedly. Men of old had shown that they possessed it, or were possessed by it. But in some larger and more significant way the Spirit came at Pentecost.

Luke describes its coming. He gives the best description he can, and tells what it was like. Here is Acts 11:1-4, in Weymouth's New Testament: "Suddenly there came from the sky a sound as of a strong rushing blast of wind. This filled the whole house where they were sitting; and they saw tongues of what looked like fire distributing themselves over the assembly, and on the head of each person a tongue alighted. They were all filled with the Holy Spirit, and began to speak in foreign languages according as the Spirit gave them words to utter." This was the first effect of the gift of the Spirit the gift of tongues. The languages represented were, those of Persia and near-by lands, the Chaldee of Mesopotamia, the Coptic of Egypt, the Latin of Rome, the Arabic, the different Greek dialects of Cyrene, Crete and Asia Minor. This speaking with tongues seems to have largely passed away with apostolic days, like the working of cures and miracles. On the mission field, however, it is still said to exist at times. At least there is recent testimony to that effect. The abuse of the gift early became evident. People pretended to have the

gift when they did not, for such were supposed to be very holy persons. Like every other good thing, there were attempts at counterfeiting. Paul discouraged its use, but particularly its abuse.

SIMON PETER had been styled the Rock, by his Master. It seemed like a humorous and playful use of language. It was now seen to be otherwise. The man of the hour was this same Simon. Fisherman as he was, innocent of the learning of the schools, he showed that he had the gift of the orator, and was a master of men. While the curious and cynical crowds were standing about making remarks about these men being full of liquor, Peter mounted a barrel and delivered a sermon that has gone on preaching ever since. He quoted a passage from Joel, written several centuries before, to show that the promised gift of the Spirit was that which had now fallen on the followers of Christ. He had the passage at his tongue's end. The scripture needed was right there, waiting for utterance. "And it shall come to pass afterward, that I will pour out of my spirit upon all flesh," he shouted; "and your sons and your daughters shall prophesy, your old men shall dream dreams, your young men shall see visions. And I will show wonders in the heavens and in the earth, blood, fire, and pillars of smoke." Then he showed that this prophecy was now being fulfilled, and with sledge-hammer blows he drove this message home.

The sermon had its effect, then and there. Many were pierced by the word, and by their own accusing consciences, thinking that they had given their consent to the death of the Holy One. Three thousand people were affected and began inquiring how they might find the Way, the Truth, the Life. A well-known pulpiteer remarked some years ago that at the beginning of the church three thousand people were converted by one sermon, but it now took three thousand sermons to convert one man. Perhaps there is a reason for this.

THIS was the first attempt of the followers of Christ to do their own reasoning for the purposes of propaganda. Peter said that this was the Christ, and his argument was sufficient for the people of his day.

The church was characterized by one very infectious quality. It was a joyous church, "praising God and having favor with all the people." The Christians of our day are prone to believe in God because they have answers to prayer, in getting what they ask. The Christians of that day spent more time in thanking God for what they did have than in asking Him for what they did not have. They were a happy folk, and it is not surprising that they had favor with the public. But this happiness was a by-product. They had not gone forth seeking it. It came unexpectedly and unbidden.

It is interesting and significant that these early Christians felt that they should live with all possessions in common. It was Christian communism. This was not continued, for Christianity is not identified with any particular economic system. Private property is permissible, as well as common property. But the spirit that prompted the communism is needed in every age.

SUNDAY SCHOOL LESSON FOR APRIL 5.

SUBJECT:—The Blessing of Pentecost. Acts 2.

GOLDEN TEXT:—Repent ye and be baptized, every one of you in the name of Jesus Christ unto the remission of your sins; and ye shall receive the gift of the Holy Spirit. Acts 2:38.

So Big

(Continued from page 473).

had stared and then run to her in her silk dress and her plumed hat, crying, "Oh, Selina! My dear! My dear!" with a sob of horror and pity. "My dear!" And had taken Selina, carrots, beets, corn, and radishes in her arms. The vegetables lay scattered all about them on the sidewalk in front of Julie Hempel Arnold's great stone house on Prairie Avenue. But strangely enough it had been Selina who had done the comforting, patting Julie's plump silken shoulder and saying, over and over, soothingly, as to a child, "There, there! It's all right, Julie. It's all right. Don't cry. What's there to cry for! Sh-sh! It's all right."

Julie lifted her head in its modish black-plumed hat, wiped her eyes, blew her nose. "Get along with you, do," she said to Reilly, the policeman, using his very words to Selina. "I'm going to report you to Mr. Arnold, see if I don't. And you know what that means."

"Well, now, Mrs. Arnold, ma'am, I was only doing my duty. How cud I know the lady was a friend of yours. Sure, I—" He surveyed Selina, cart, jaded horses, wilted vegetables. "Well, how cud-I, now, Mrs. Arnold, ma'am!"

"And why not?" demanded Julie with superb unreasonableness. "Why not, I'd like to know. Do get along with you."

He got along, a defeated officer of the law, and a bitter. And now it was Julie who surveyed Selina, cart, Dirk, jaded horses, wilted left-over vegetables. "Selina, whatever in the world! What are you doing with—" She caught sight of Selina's absurd boots then and she began to cry again. At that Selina's overwrought nerves snapped and she began to laugh, hysterically. It frightened Julie, that laughter. "Selina, don't! Come in the house with me. What are you laughing at! Selina!"

With shaking finger Selina was pointing at the vegetables that lay tumbled at her feet. "Do you see that cabbage, Julie? Do you remember how I used to despise Mrs. Tebbitt's because she used to have boiled cabbage on Monday nights?"

"That's nothing to laugh at, is it? Stop laughing this minute, Selina Peake!"

"I'll stop. I've stopped now. I was just laughing at my ignorance. Sweat and blood and health and youth go into every cabbage. Did you know that, Julie? One doesn't despise them as food, knowing that. . . Come, climb down, Dirk. Here's a lady mother used to know—oh, years and years ago, when she was a girl. Thousands of years ago."

THE best thing for Dirk. The best thing for Dirk. It was the phrase that repeated itself over and over in Selina's speech during the days that followed. Julie Arnold was all for taking him into her gray stone house, dressing him like Lord Fauntleroy and sending him to the north-side private school attended by Eugene, her boy, and Pauline, her girl. In this period of bewilderment and fatigue Julie had attempted to take charge of Selina much as she had done a dozen years before at the time of Simeon Peake's dramatic death. And now, as then, she pressed into service her wonder-working father and bounden slave, August Hempel. Her husband she dismissed with affectionate disregard.

"Michael's all right," she had said on that day of their first meeting, "if you tell him what's to be done. He'll always do it. But Pa's the one that thinks of things. He's like a general, and Michael's the captain. Well, now, Pa'll be out tomorrow and I'll probably come with him. I've got a committee meeting, but I can easily—"

"You said—did you say that your

father would be out tomorrow! Out where?"

"To your place. Farm."

"But why should he? It's a little twenty-five-acre truck farm, and half of it under water a good deal of the time."

"Pa'll find a use for it, never fear. He won't say much, but he'll think of things. And then everything will be all right."

"It's miles. Miles. Way out in High Prairie."

"Well, if you could make it with those horses, Selina, I guess we can with Pa's two grays that hold a record for a mile in three minutes or three miles in a minute, I forget which. Or in the auto, though Pa hates it. Michael is the only one in the family who likes it."

A species of ugly pride now possessed Selina. "I don't need help. Really I don't, Julie dear. It's never been like today. Never before. We were getting on very well, Pervus and I. Then after Pervus's death so suddenly like that I was frightened. Terribly frightened. About Dirk. I wanted him to have everything. Beautiful things. I wanted his life to be beautiful. Life can be so ugly, Julie. You don't know. You don't know."

"Well, now, that's what I say. We'll be out to morrow, Pa and I. Dirk's going to have everything beautiful. We'll see to that."

It was then that Selina had said, "But that's just it. I want to do it myself, for him. I can. I want to give him all these things myself."

"But that's selfish."

"I don't mean to be. I just want to do the best thing for Dirk."

It was shortly afternoon that High Prairie, hearing the unaccustomed chug of a motor, rushed to its windows or porches to behold Selina DeJong in her mashed black felt hat and Dirk waving his battered straw wildly, riding up the Holsted road toward the DeJong farm in a bright red automobile that had shattered the nerves of every farmer's team it had met on the way. Of the DeJong team and the DeJong dog Pom, and the DeJong vegetable wagon there was absolutely no sign. High Prairie was rendered unfit for work throughout the next twenty-four hours.

The idea had been Julie's, and Selina had submitted rather than acquiesced, for by now she was too tired to combat anything or any one.

"It'll get you home in no time," Julie had said, energetically. "You look like a ghost and the boy's half asleep. I'll telephone Pa and he'll have one of the men from the barns drive your team out so it'll be there by six. Just you leave it all to me. Haven't you ever ridden in one? Why, there's nothing to be scared of. I like the horses best, myself. I'm like Pa. He says if you use horses you get there."

Dirk had accepted the new conveyance with the adaptability of childhood, had even predicted, grandly, "I'm going to have one when I grow up that'll go faster 'n this, even."

"Oh, you wouldn't want to go faster than this, Dirk," Selina had protested breathlessly as they chugged along at the alarming rate of almost fifteen miles an hour.

Jan Snip had been rendered speechless. Until the actual arrival of the team and wagon at six he counted them as mysteriously lost, and DeJong's widow clearly gone mad. August Hempel's arrival next day with Julie seated beside him in the light spider-phaeton drawn by two slim wild-eyed quivering grays made little tumult in Jan's stunned mind by now incapable of absorbing any fresh surprises.

(Continued next week.)

for
work

for
dress

truly
the shoe of double duty



WHEN we first started making "the work shoe with the dress shoe finish," we were told that we were on the wrong track.

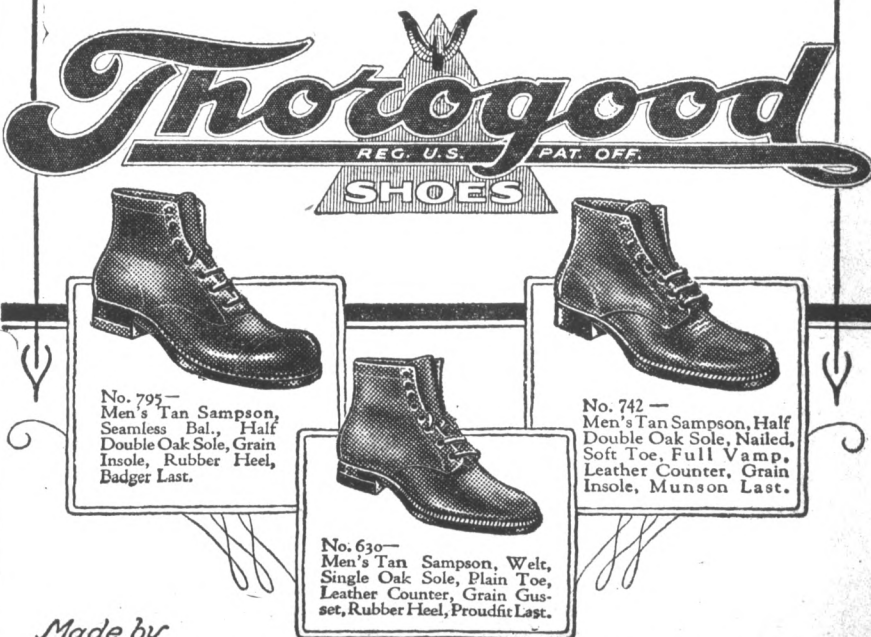
They told us it wasn't necessary to make Thorogoods so good looking—a good strong shoe was all that was needed. But how long could a generation that has electric lights, telephones, good roads and automobiles be satisfied with the old style of coarse work shoe.

Thorogoods are shoes for work and for play—for farm and for town. Strong re-inforced shoes on broad lasts for comfort and wear, yet with the necessary good looks to pass muster on the many trips to town.

See how good looks and good wear have been combined. Examine the top grade flexible oak soles with the natural finish. Waxed linen stitching counter sunk in soles to protect them from too early wear. Look at the little ridges along the edge of the sole called channel stitching, previously found only in the high-grade dress shoes.

If ability and organization could give these betterments in farm shoes, why not others as well? So Thorogoods were made with high-grade upper leathers, tanned and retanned for pliability and comfort, though tough enough to stand the hardest kind of service. Yet these quality leathers now used in all Thorogoods were once only found in higher priced dress shoes.

Whatever your requirements are in good shoes, you'll find a pair of Thorogoods to exactly match your needs and purse, whether it is a high cut hunting or general purpose boot, moccasin type shoe, scout shoe or a real Thorogood dress shoe for Sunday, all made just a little better and costing a little less than you would expect.



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WOMAN'S INTERESTS



Spring Survey of Fashion's Forecasts

With Careful Planning, a Few Additions Can be Made to Last Season's Wardrobe

PERHAPS we can't all acquire a new outfit of spring toggery this year, but we will make a few additions to our last year's wardrobe, and remodel other frocks for a second season's wear. And so our minds turn fashionward at this season of the year when Mother Nature ventures forth in her new regalia. But, unlike Mother Nature, ours need not be "the same old thing" year after year. How our feminine instinct would revolt at that idea!

There are a few changes in the general lines of spring dresses, the severely straight silhouette of last season takes on many variations. No one could have thought that waist lines, hips, and other time honored curves would be forgotten by Dame Fashion. But these variations are only knee deep. There are ruffles, frills, flares, box pleats, and inverted plaits below the knees that tend to take away the severe straightness of many frocks.

A bird's-eye view of fashion shows skirts perceptibly shorter, ten or

twelve inches from the floor. To be well dressed though, one wears them the length that suits their figure. It is not advisable to shorten your skirts and slips at fashion's command. Choose a length that best suits your height and hip line and hold to it.

Kasha is a new wool material. It resembles flannel, although softer in texture. Flannel, poiret twill, and covert are used for the sport frocks and ensemble suits.

Designs in silks fall into three groups, the flowery, the geometrical and the combination of both. The designs are large, almost too large for those with a reserved taste in dress. In these pattern materials printed crepe is foremost, on crepe de chene, crepe romain, georgette, and chiffon. Polka dots and stripes have their place, too, and for sport wear this will be a striped season.

The spring hats are small but the warm summer days will usher in the wider rim. The hats are miniature skyscrapers, with roses, quills, and doo dads piled high on the crown, adapted to the round face, not at all pleasing to the long slim one. The horsehair hat and milan will be most popular for summer days.

The woman who is short and has a round face needs a hat which will give her height and which will not empha-

size her stoutness. She will look better in an uneven rolling brim than a turban or a hat with an even rolling brim. The turban will make her face appear rounder than ever. It is necessary to have the crown of the hat as wide as the widest part of her face. She will look better in a hat with a tall crown than one which is squatty and which goes with the mushroom type of hat.

The woman with a round face who is tall may wear a larger and more heavily trimmed hat than other women. The thin face generally wears a small hat best. Such a hat brings out the fullness of the face as well as the delicacy of the curve. A large brimmed hat on a thin face causes too great a contrast and only emphasizes the thinness of the face. Hats which are mostly crown, as well as small hats with narrow and upturned brims may also be worn by those who have a thin face.—Martha Cole.

KEEP CLEANING TOOLS IN ONE PLACE.

DID you ever count the places you visit to get your equipment together before you can finish cleaning? One housewife discovered that she

had to get the dust mop from the front hall closet, the wall brush from the attic stairway, the brooms and dustpan from behind the kitchen door, the mop and bucket from the cellar, and cleaning cloths from the attic before completing her cleaning.

She decided that keeping all the tools in one place would save much time and energy when cleaning.

A corner of a back room was chosen for the cleaning equipment though an old wardrobe or a closet would have worked even better. Screw eyes were inserted in the handles of brooms, brushes, mops and even the carpet sweeper. They were then hung in a row on hooks, high enough from the floor so they were not under constant wearing pressure. Shelves placed within easy reach were used for storing bottles, jars and packages of soaps, and other materials used in cleaning. Dusters and cloths for cleaning were folded and stored there as well. A large tin coffee can was used for oily cloths which were worth saving, so there was no danger of fire.

Now, when this housewife starts her housecleaning she will save much time she used to spend collecting tools.—Mrs. Marian Rogers Smith, Home Management Specialist, M. A. C.

A "GRANDMOTHER" SHOWER.

THE very newest thing in "showers" was given recently for a perfectly new grandmother. 'Twas her very first grandchild and the grandmother in the case looked extremely young with her bobbed, marcelled hair, (and not one gray one amongst the lot), and not one bit grandmotherly. The hostess powdered the hair of the honor guest, provided specs, a bit of knitting, etc.

Dainty refreshments were served. The "shower" provided dainty gifts for grandmother and, also, for the new granddaughter—Mrs. G. S.

SOME GOOD EASTER DISHES.

Eggs a la Golden Rod.

1-8 tsp. pepper
1/2 tsp. salt
1 lb. butter
1 lb. flour
1 cup sweet milk

Chop whites of two hard cooked eggs and put in white sauce. Butter toast, put the sauce over it and press egg yolks through a sieve over top.

Creamed Scrambled Eggs.

2 lb. butter
6 eggs
1 cup milk
1 1/2 tsp. salt
1-8 tsp. pepper
3 lb. flour

Melt butter in a frying pan, break eggs and add to the melted butter, stirring until soft-cooked. Have prepared a white sauce of three tablespoons of flour, two cups milk, and seasoning. Add cooked eggs to white sauce and stir lightly.

Egg Gems.

Moisten bread crumbs with hot milk, season. Add one egg to every pint of crumbs. Have gem pans hot and well buttered. Drop in spoonfuls of mixture and break an egg on each. Bake till eggs are done and put a teaspoon of butter on each.

Bread Omelet.

3/4 cup milk
1/2 cup bread crumbs
Salt and pepper
Yolks of 4 eggs, whites beaten stiff and folded in last

Have tablespoon of lard or fryings in iron spider, when very hot add the omelet, cover, cook slowly on a moderately hot place on stove, and when lightly brown fold over and cook a few minutes, serve.—C. B. W.

Housecleaning Time Again!

Clean Blankets and Curtains this Way to Save Color

By Bertha Wellington

Home Demonstration Agent

HOUSECLEANING time again! Dear me, yes, but let's not dread it. Here are some suggestions for cleaning that have saved time, strength and endless worry and helped toward the finished product, a clean house, a thing of beauty and a joy forever, at least until next housecleaning time.

Let us consider our blankets and cretonne curtains. Take the blankets first. After a long winter they will need a thorough cleaning and sterilizing. This means a good washing with a good soap. This soap can be made as follows:

One large bar mild soap.
Three quarts water.
Two tablespoons borax.
Half cup denatured alcohol.

Shave the soap into cold water and heat slowly until dissolved. When cold, add borax and alcohol. The borax acts as a bleach and the alcohol without injury to the blankets.

Tapestry and cretonne curtains are always a problem as they are apt to fade. What is so disheartening as to face a faded drapery after it has emerged from a cleansing and sterilizing bath.

Of course, gasoline in cleaning goods may be used, but it does not always prove satisfactory. Did you ever try making a thin paste of gasoline and whitening or white cornmeal and applying a light coat with a brush? Allow it to dry thoroughly and then brush off the whitening dust or cornmeal with a stiff brush and be sure to get it all off. If the colors seem dull rub them with a cloth dipped in diluted household ammonia and watch them come out. Of course, great care must be used when cleaning with gasoline. Never clean with it in a closed room, near a fire, radiator, or register.

Tapestry may be washed in soap and water if care is taken. Dissolve four ounces of good soap in one quart of water and let boil to a soap jelly. Wash in first one water and then another and rinse immediately in cold water. A little thin boiled starch may be put into the rinse water. Be sure to iron with a very hot iron.

Dark colored cretonnes may be washed very satisfactorily in soap bark solution. Soap bark can be purchased cheaply at any drug store. Steep one cup of bark in one quart of boiling water for twenty minutes. Strain, wash pieces in solution, rinsing thoroughly. A bran solution is often used. To make this, put four cups of bran in a gallon of water. Strain and use as soap bark solution. Always remember that if the colors seem dull, rubbing with ammonia will usually brighten them.

These are just some suggestions that make the spring housecleaning more pleasant and satisfactory.

SHE'S CLEANING HOUSE.

The yard is full of chairs and tin;
Of heavy rugs and curtains thin.
We're moving out, or moving in,
And with the chickens have to brouse.
And such a din! I sure begin
To think she's cleaning house.

The time is here for groans and wails;
For soap and rags and water pails,
And all the grief that it entails
To live on hash and pickled souse,
While mother flails the tacks and nails;
For she is cleaning house.

She makes me pound the rugs—aw Gee!
I wish she'd let the cleanin' be.
I'd rather liv'n a hollow tree,
And be a chipmunk or a mouse.
How happy he, the son of she,
Who never cleans her house.
—Al. Rice.



Ensemble Suits Are Both Popular and Practical.

The ensemble costume, a dress and coat to match, is popular and practical. The coat may be worn with any afternoon frock, and is lined with the material that trims the dress.

The jumper dress is adapted to sport and daily wear for the school girl. It is short in skirt, and plain, sufficiently tight about the hips to fit smoothly. Inverted or box plaits allow for the needed sport skirt width.

The V-shaped neckline is new and more suited to the full face. Some extremely high collars are seen, but not comfortably so. The boy type frocks with straight back and roll collar are also popular with the school girls.

Fashion is surely showing her colors this year. The display of the "yard goods department" of a large store is as colorful as the springtime flowers themselves. Pervenche blue is a twin sister to last season's Periwinkle blue. Then there are orange, green, red and shades of violet in profusion. In the more sombre tones the popular are navy blue, soft grays, browns and greens.

In materials, this spring there is lit-

When Spring Comes

As One Farmwife Looks Upon the New Problems

LET us be wide awake for the adventure which can be ours these beautiful spring days. Almost said the best days of all the year on the farm—but no, all days are good on the farm.

Our feet on the farm are apt to be in the mud this month of March, but our minds and hearts must be castle building with regard to that vegetable garden and our goose, turkey, duck and chicken crop if success is to crown our efforts.

Making the nest and arranging it properly is a very important first step. To do this properly you must think of yourself as a chicken, goose, duck or turkey and then plan on the nest which would seem just the fit place for hatching your downy babies. After nests are built the fun of watching for the first egg. While the hatching process is on, we begin "counting our chickens before they are hatched." We plan the new rug and curtains, maybe a radio or what not, to be bought in the fall when the fowls are sold.

Build all the castles you like, my farm sisters. It keeps life from being drab, and people without castles never go far.

About the vegetable garden—it need not be very large if well arranged. In fact, a small garden well kept is preferable to a large, illy kept one, and the amount of garden "sass" which can grow on a small piece of ground is truly miraculous. Let us have lettuce all summer by frequent plantings, also radishes at all times. Beans can be planted at different times. Carrots, cucumbers, tomatoes, and summer squash are standard vegetables.

I get the man of the family to put in sweet corn with the drill at the edge of the field corn, and sow our garden peas the same way. When my

babies were small I did not bother with any others, but now I put in just a few peas and sweet corn in my garden for very early ones.

Plant a few squash seeds near an old fence or outbuilding and train the vine to run up. It's unique and takes away the backache when hoeing it. Besides, you want to see if the vine can hold up that big squash.

It's nice to plant everything in the vegetable line if you have time, but many farm women have little time, and to them I say plant what you like best, only plant, at least, one vegetable on the table at each meal. I always have a surprise bed where I try out new things. That's a real adventure in gardening.

Long ago I decided against pie for dessert in summer, instead we have berries and cream. Strawberries are a task and require time, but raspberries I find will grow without much care. We had rather a low place at our back door, and I took our coal ashes all winter and leveled it up and then planted the canes in the spring. They grew so thick no weed had room and it's so handy to run out and pick a bowl full, and the everbearing ones last through such a long season. Those climbing black berries grow around the garden fence.

With cherries, plums and apples why stand over a hot fire baking through the warm summer days? Rather take that time and keep posted on current events. Just now we are so interested in happenings in Lansing and Washington it behooves us to see that we farmers get a square deal in the readjustment taking place. We farmers, means the farmer and his wife. As well, for the farmer's wife is fifty per cent of the business.—A Farmer's Wife.



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

SWISS STEAK.

I would like a recipe for Swiss steak.—Mrs. M. M. N.

To make Swiss steak, rub salt and pepper into a piece of round steak that has been cut about one and a half inches thick. Pound flour into the steak with the edge of a saucer, using as much flour as the meat will take up. Place in a frying pan with a small amount of fat. Brown on both sides, and add water to cover. Cover tightly, and simmer until tender. The cooking may be done in the oven after the browning, if one wishes. Some prefer to add vegetables after the meat has been browned. Onions and carrots make a good combination, and if celery is added the steak is still better.

FINISH FOR KITCHEN WALLS.

I have a kitchen 9x12 feet by 10½ high. The walls are plastered. It always has been kalsomined, until now there are six or eight coats. Now, it don't matter how good a job we do in putting on a new coat of kalsomine, the old coats scale and peel off. In some places it sticks hard, in other places it is nearly all off, and it makes the walls and ceiling rough and ragged. Could you advise me what or how it can be done to remove this old kalsomine so as to prevent peeling and scaling and make it look neat and smooth?—Mrs. P. P. D.

It would be much better to entirely remove the kalsomine before you add any other finish. This can be done by thoroughly scraping down what kalsomine will come off, and then washing the walls in strong vinegar solution. This cuts the remaining kalsomine so that it is readily brushed or scraped down.

mine will come off, and then washing the walls in strong vinegar solution. This cuts the remaining kalsomine so that it is readily brushed or scraped down.

PARSNIP FRITTERS.

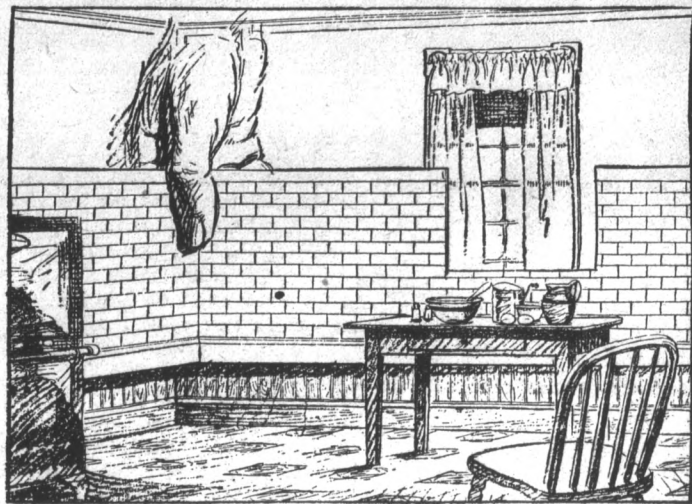
PARSNIPS are delicious prepared in this way. Boil them without peeling until tender and plunge into cold water. The skins will then slip off readily. Mash and to each pint of pulp add two teaspoons of butter, one beaten egg, one tablespoon of cream, and flour to bind the mixture. Drop by spoonfuls into deep boiling fat. Fry until brown and serve hot.

TO MEND A SWEATER.

TO easily mend a sweater so the spot cannot easily be seen, darn the hole with the same color of yarn, then with a needle and single yarn make rows of chain stitches over the darning, to correspond in width with the ribs or ridges of stitching in the sweater.—C. B. W.

A good remedy for lusterless hair is rubbing a few drops of castor-oil well into the scalp.

for WALLS



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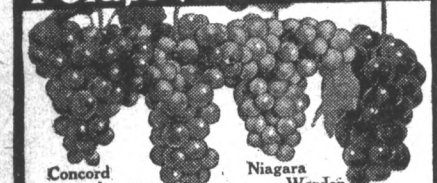
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Are Farm Homes Under Equipped?

(Continued from page 457).

cold kitchen; follow her through the routine of the day's work; bear with her until the children are in bed and the mending done. Now let us bring into play the magic of Aladdin's lamp. Give her a modern kitchen and the plain home conveniences. Just those that would be found in any moderate city home. A sink with hot and cold running water, a heating plant, a bathroom, with septic tank for sewage disposal, a lighting plant, possibly a power separator, an electric flat iron and vacuum cleaner. Now view the picture at the end of the day. The hardest work has been removed, the work day has been made shorter. Imagine the joy and satisfaction at having some leisure time over and above that required for sleep.

And what would it cost? A long spell of sickness with the incident loss of time would put in the most important of the conveniences. The price of an enclosed model of a popular make small car would buy the whole plant.

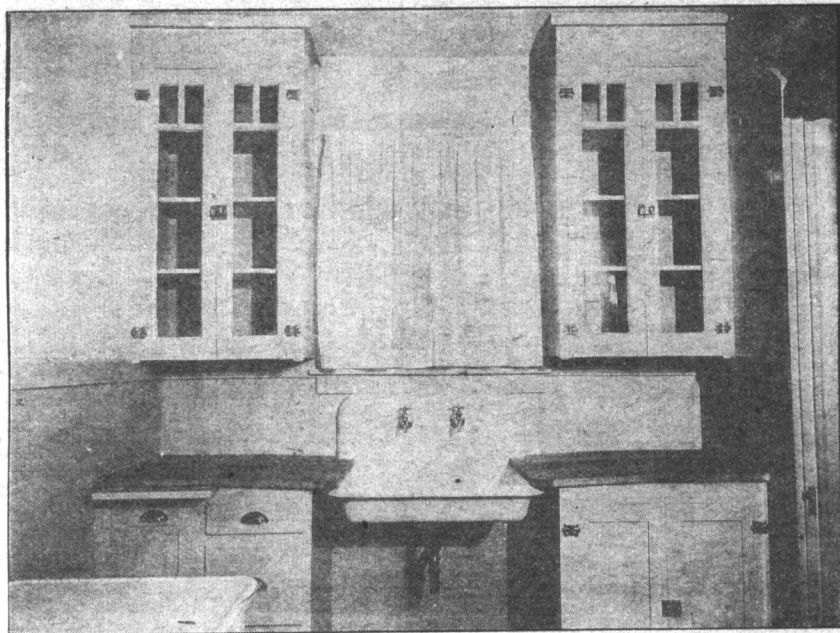
Equipment for efficient farm living

One farmer remarked to me that a daily shower bath made him feel more fit; that he thought he was able to accomplish ten per cent more work. The farmer belongs to a class who take pride in the amount of productive labor that they can do.

Third, a water system is one of the most economical conveniences to install and the operating expenses and depreciation are low. A system to furnish hot and cold water may be had for about thirty dollars and all the parts may be used later when a more complete system is installed.

Before extensive plumbing can be installed in a farm home, it is necessary to have a heating system to protect it from freezing. To attempt to heat the whole house by stoves would cost much more than with a central heating plant and the house would not be well heated at that.

Of the methods of heating farm houses, other than stoves, that of the hot-air furnace is the most common. The hot-air furnace is low in price.



Running Water in Kitchens Reduces Labor of Handling That Ton of Water. should have equal place if not preference over equipment for operating. No farm can be considered equipped for efficient work until the commissary and sanitary departments are on an efficient basis.

Let us consider the cost and relative importance of what we shall call, "The Big Five" of modern improvements, water supply, heating, plumbing, lighting and power equipment.

"I have \$400 to spend on improvements in our home. Which shall I put in, a lighting plan, a furnace, a water system, or can I put in a bathroom?" This question was recently asked by a farmer. Many farmers have the same question to decide. The answer will vary in individual cases. However, in the majority of cases after careful consideration the answer will be the same.

Hot and cold running water in the farm home offers three distinct advantages. First, the saving of labor and strength is great. It would be enlightening to every farmer and his wife to calculate the actual pounds of water handled in a day, including each time it is handled. It will be a ton or more.

Second, running water offers new opportunities for health, comfort and increased efficiency. Piped to a conveniently located sink in the kitchen, it will take some of the dread from dishwashing; piped over the tubs in a laundry room it will take some of the labor out of wash day. It will make possible a plumbing system and a fully equipped bath room. The farmer can share in this comfort. Who is more entitled to the benefits of a tub bath or shower bath than the farmer when coming in after a day's work in the harvest field or a day's threshing.

easy and safe to operate, supplies fresh air, gets quick results and it is easy to control the heat according to the weather. In the large house where heat pipes are unequal in size and length, it is hard to get equal distribution of heat, and it is often impossible to deliver heat against the wind.

The single register or pipeless furnace is not the equal of a pipe furnace, but is growing in popularity for two reasons. It is the cheapest heating system to be had and also the easiest to install in an old house. The pipeless furnace costs little more than a good stove. It gets the heating unit with its fuel, dirt and ashes in the basement where it belongs, and it is more efficient as a heating unit.

A steam system is better adapted to large buildings than to residences.

A hot water system, due to the high cost, the fact that no radiator can be shut off, and the element of risk from freezing a radiator, or the expansion tank, is comparatively little used in the country.

Plumbing is usually understood to cover all piping and fixtures that carry water into the house and remove the waste materials or sewage, as we commonly term it. In the farm installation, plumbing may be considered as intermediate, with the water system as the beginning and the septic tank as the end.

The fully equipped bathroom will remove one of the menaces to health, the outdoor privy. A privy is inherently dangerous. It is a possible source of pollution of drinking water and of infection from flies. Furthermore, a clean white bathroom sets a standard to live up to. "Cleanliness is next to Godliness."

The fact that few farm homes are equipped with plumbing and a bathroom, and that few farm families appreciate its value is not a valid argument against it. People who have never lived with a modern sanitary bathroom, look upon it as a luxury. People who have lived with one, always begin with a bathroom when they plan a house.

Since a water system must precede plumbing, and a heating plant is necessary to protect pipes, plumbing must at least take third place in order of installation of improvements in the farm home.

The facts that commercial concerns have persistently and consistently advertised lighting plants, and that light makes a better display than other improvements, are reasons why many farmers have installed lighting plants before they have water systems, plumbing, or a heating system, even though the cost of the lighting plant is higher, and depreciation and operating expense are greater. The electric plant makes possible many electric driven appliances, as vacuum cleaner, electric washer, flat iron, toaster, etc. But it is doubtful even when this is considered, whether, from the standpoint of comfort derived and labor saved, the light plant can be given higher than fourth place among home improvements.

The remaining item of the "Big Five" in home conveniences is power equipment. This includes power washing machine, power driven cream separator, churn, and vacuum cleaner. While electricity is most convenient for operating these machines, the gasoline engine has solved the problem on many farms. The gasoline engine has been a great boon for farmers. It is a self-contained, compact, convenient power plant that may be had in large or small units.

From benefits derived and the low cost, it appears that the first improvement to install in the farm home is running water. The heating plant must be installed to protect the plumbing which comes third, followed by the lighting plant. Power equipment, not being dependent on other improvements, may be added as occasion demands.

George Washington said, "Agriculture is the most healthful, most useful, and most noble employment of man."

There is more to agriculture than just running a farm, and we know that that task, measured by present-day standards of efficiency is a challenge to a real man with a real helpmate. There is the child problem, the living problem, the home problem. If agriculture is to permanently prosper and be "the most healthful, most useful, and the most noble employment of man," the home side cannot be left to work itself out as best it may.

Standards of living on the farm resulting from necessity have become a habit. Living may be said to be very largely an individual matter—one chooses his own standard to a large extent. This is probably more true in the country than in the city, since conveniences in the country require more knowledge and initiative, to secure and maintain. First, we need to get the vision, ways and means will develop.

Knowledge of conveniences is being disseminated and it is becoming increasingly easy to install and maintain improvements. The Agricultural Engineering Department stands ready to give information and plans on any phase of the subject.

Surely everyone believes that life on the farm should be satisfying, happy and prosperous, and that it cannot be so without some leisure time for every member of the family. Then let us determine to provide modern conveniences as finances permit.

Rural Health

By Dr. C. H. Lerrigo

THE DOCTOR'S SECRETS.

WHY all this mystery? Why do doctors keep people in ignorance? T. W., who is fifty-seven years old and has just been through a rather thrilling experience with nurses and a hospital, has written a very nice letter to inquire why more information is not given by the high and mighty ones who hold health in the hollow of their hands. T. W. frankly admits that he was well treated by all concerned, and that costs were very reasonable. He was suffering intense pain. The doctor gave him prompt relief, then took him to the hospital for more complete work. He was given good care by everyone and he appreciates the service. But even now he does not know what his trouble was, nor did he get any instructions about what to do if it recurred.

My sympathy is with T. W., though I doubt if there was much to tell him. From his rather vague description I think his trouble likely to have been an abscess of the middle ear, and probably involvement of the mastoid cells. This is a very dangerous condition that may lead to sudden death. The only thing anyone could tell him to do if a recurrence came, would be to call

the doctor as quickly as possible. But I think very much could have been told him about taking such care of himself that there will be no recurrence.

This is a day of prevention. The doctor who does his duty by his people is not content to spend his time pulling them out of holes. It is much more important that he educate them to a standard of living that enables them to progress steadily along the highway of health and keeps them clear of the old pitfalls. In choosing your family doctor you should select a man who makes this his policy.

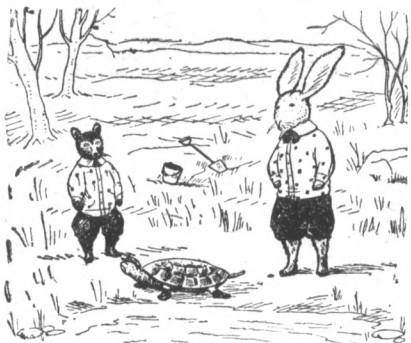
Educate the medical profession, folks. Don't allow yourselves to be put off in the T. W. method. Don't bother your doctor with arguments while he is doing his work of repair. Obey his instructions implicitly, without discussion. But when you pay your bill, make a point of saying, "Now, doctor, I want to know what I had, why I had it, and what my family and I shall do to see that it never comes back." Doctors are reasonable people. They get most of their education from colleges and clinics but they may as well get part of it from the great American public, of whom you are which.



Doings in Woodland

Brownie Meets Tommy Turtle

BROWNIE had been such a little bear before the cold winter came that he had not learned much about the people who lived in Woodland. With Old Mother Bear, he had stayed very close to their little house. But, since the hunter had taken his mother away, he had come to live with Rolly Rabbit and Bruin. His two new friends had great fun teaching him many of the Woodland mysteries. It was one warm spring day that



A Head and Four Legs Popped Out From Nowhere at All.

Rolly Rabbit took Brownie down to Frog Pond Hollow. As they neared the pond, Brownie heard queer sounds. "Croak, Creek, Croak! Kerplunk! Gur-rund!" echoed in a chorus.

"What is that?" asked Brownie as he stopped to listen.

"That's the frog family," said Rolly Rabbit.

"My mother showed me a frog last summer," said the little Brown Bear, "but I never knew they could talk like that."

"They are really talking to each other, only we call it croaking," said Rolly.

Now they were down by the edge of the pond and Brownie could see an old log that had fallen into the water. The "frog song" seemed to come out of this old log. As Brownie looked closer there sat a whole row of the frog family, big ones, little ones and middle-sized ones.

"What a funny song to sing!" said Brownie as he climbed upon what he thought to be a rock, the better to see the frog chorus.

"Oh, my! Whatever is the matter?" thought Brownie.

The rock he was standing on, started to move. All of a sudden it had four feet and a head that seemed to pop out from nowhere at all. It was moving, walking right off with the little Brown Bear on its back.

Riding on this rock was really fun, Brownie thought, but a little scary when he did not know what it was. So he hopped off and ran to Rolly Rabbit.

"That stone can walk," he said, running up to Rolly all out of breath.

Rolly only laughed but came down to the pond to investigate.

"That's only Tommy Turtle," said Rolly. "He has lived in the Frog Pond for a very, very long time. Don't be afraid. He won't hurt you unless you hurt him."

"But I stood right on his back," said Brownie.

"That was a pretty heavy load for him," said Rolly, "but it did not hurt him. You see, he always carries his house with him. When he wishes to sleep he just draws in his head and legs and he is protected. But he can stretch his neck a very long way when he wants to."

"He must be a very lazy fellow to carry his house with him so he can sleep safely when he likes," said the Little Brown Bear.

"I wouldn't call him lazy," said Rolly, but he is a very slow fellow. Perhaps that is why he takes his house with him, because he could not go far from home and get back before dark. And now we must go home," said Rolly Rabbit, "for we haven't our house with us like Old Tommy Turtle, but we will visit Frog Pond Hollow again sometime."

Michigan Farmer Pattern Service

Frocks That Prophecy of Spring

No. 4803—Ladies' House Dress. Cut in 7 sizes, 38, 40, 42, 44, 46, 48 and 50 inches bust measure. A 40-inch size requires 5½ yards of 36-inch material. The width at the foot with plaits extended is 2¾ yards. Price 12c.



½ yard of contrasting material for collar, cuffs, lap and facings. Price 12c.

No. 5036—Ladies' Dress for Mature Figures and Narrow Hips. Cut in nine sizes, 40, 42, 44, 46, 48, 50, 52, 54 and 56 inches bust measure. A 41-inch size requires 5½ yards of one material 40 inches wide. The width of the dress at the foot is 1¾ yards. Price 12c.



No. 4913—Ladies' Apron. Cut in 4 sizes: Small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 4¾ yards for the frock and 2¾ yards for the knickers of 27-inch material. The width of the frock at the foot is 1¾ yards. Price 12c.

No. 4492—Ladies' Coat Dress. Cut in six sizes, 34, 36, 38, 40, 42 and 44 inches bust measure. A 38-inch size requires 3¾ yards of 54-inch material. The width of the skirt at the foot is 1¾ yards. Price 12c.



No. 5033—Misses' Dress. Cut in three sizes, 16, 18 and 20 years. An 18-year size made as illustrated in the large view will require 2¾ yards of brocaded material and two yards of plain 40 inches wide. Without sleeves ½ yard less is required. The width at the foot is 1¾ yards. Price 12c.

No. 5057—Girls' Dress. Cut in four sizes, 6, 8, 10 and 12 years. To make the dress for a 10-year size in 36-inch material will require two yards. The guimpe requires 1¾ yards if made with long sleeves. With short sleeves 1½ yards is required. Price 12c.



No. 4891—Misses' Dress. Cut in 3 sizes, 16, 18 and 20 years. A 16-year size requires 5½ yards of one material 40 inches wide. The width of the skirt with plaits extended is three yards. Price 12c.

No. 5034—Ladies' House Dress. Cut in nine sizes, 40, 42, 44, 46, 48, 50, 52, 54 and 56 inches bust measure, with corresponding waist measure, 33, 35, 37, 39, 41, 43, 45, 47 and 49 inches. To make dress as illustrated for a 44-inch bust requires 4½ yards of 36-inch striped material, and ¾ yard of plain for facings. The width at the foot is 1¾ yards. Price 12c.



No. 5049—Child's Dress. Cut in four sizes, 2, 4, 6 and 8 years. A six-year size requires 2½ yards of 36-inch material. Price 12c.

No. 5040—Ladies' Apron. Cut in four sizes, small, medium, large and extra large. A medium size requires 2¼ yards of 36-inch material. Price 12c.

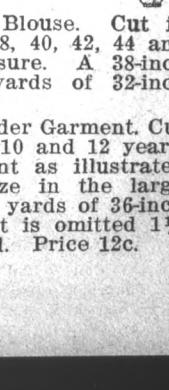
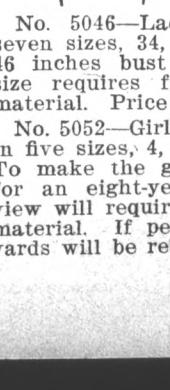


No. 4403—Ladies' House Dress. Cut in seven sizes, 36, 38, 40, 42, 44, 46 and 48 inches bust measure. A 38-inch size requires five yards of 32-inch material. The width at the foot is two yards. Price 12c.

No. 5043—"Two in One" Under Garment. Cut in four sizes: Small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 2¾ yards of 36-inch material. The chemise alone requires 1¾ yards. For bussets of webbing ½ yard four inches wide or ¼ yard six inches wide is required. Price 12c.



No. 5046—Ladies' Blouse. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38-inch size requires four yards of 32-inch material. Price 12c.



No. 5052—Girls' Under Garment. Cut in five sizes, 4, 6, 8, 10 and 12 years. To make the garment as illustrated for an eight-year size in the large view will require 2¾ yards of 36-inch material. If petticoat is omitted 1½ yards will be required. Price 12c.



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100% Live Delivery — Postage Paid

Satisfaction Guaranteed. Write Now. White Leghorn and Barred Rock pullets after May 1, at low prices.

Knoll's Hatchery, R. R. 12, Box M., Holland, Mich.



TYRONE POULTRY FARM

Let us sell you your 1925 Chicks from pure-bred, select White and Brown Leghorns, Barred, White and Buff Rocks, R. I. Reds, Anconas, Black and White Minorcas, White, Buff, Golden and Silver Wyandottes, White and Buff Orpingtons, Black Spanish, Light Brahmas, etc. Of leading strains such as Barron, Parks, etc.

3000 CHICKS GIVEN AWAY TO OUR CUSTOMERS DURING 1925.

We guarantee 100% Live Delivery, Postpaid. Reference: Commercial State Savings Bank. Before ordering Chicks elsewhere, get our special circular containing our low prices and particulars about the 3000 PRIZE CHICKS.

TYRONE POULTRY FARM,

DEPT. 20,

FENTON, MICHIGAN.



YPSIFIELD HIGH GRADE CHICKS

Healthy and Husky—True to breed—Order right from this ad. Postage prepaid—25% books order.

	100% live delivery guaranteed per	50	100	1000.
English Type White Leghorns, Grade A.....	\$9.50	\$18	\$35	\$165
English Type White Leghorns, Grade B.....	8.50	15	25	145
White Wyandottes.....	8.50	16	25	145
Barred Rocks.....	8.00	15	22	140
Rhode Island Reds.....	8.00	15	22	140

Ref., First National Bank, Ypsilanti. This is not primarily a Commercial Hatchery, but the Hatchery Department of our modern Egg Farm, established from 20 years' experience in breeding and prolific egg production. YPSIFIELD EGG FARM HATCHERY, Ypsilanti, Mich.

Early Maturing BABY CHICKS

From Pure Bred, Blood Tested Stock

All of our breeding stock has been tested for Bacillary White Diarrhea, and Cullled for Egg Type and Standard Requirements. This should greatly aid in the control of White Diarrhea Troubles. Write for prices on our B. P. Rocks, R. I. Reds, White Wyandottes, W. P. Rocks, and S. C. W. Leghorns.

MILAN HATCHERY, Box 4 Milan, Mich.

Dundee Chicks

Stock all Pure Bred and Blood Tested for Bacillary White Diarrhea.

This assures you of more healthy, sturdy chicks. The kind that live and grow into money making flocks. Flocks have all been thoroughly culled for years by experienced men.

Four Leading Varieties: Barred Plymouth Rocks, Rhode Island Reds, S. C. Mottled Anconas, S. C. English White Leghorns.

Write for price list and catalogue describing in detail about our test for Bacillary White Diarrhea

DUNDEE HATCHERY, Box A, Dundee, Michigan

YEARS OF EXPERIENCE

Our 15 years of work and experience in breeding and hatching Chicks qualifies us as DEAN in the Poultry Industry College. We own and operate a real Poultry Farm of 20 acres, not merely a Hatchery. Our Free Catalog will give you an excellent idea of this Farm—Get it now. We have specialized in White Leghorns for many years.

	50	100	500	1000
100% Live Delivery Guar. Postpaid prices on	\$7.50	\$14.00	\$67.50	\$130.00
S. C. White Leghorns, Extra Quality.....	\$4.00	7.00	14.00	140.00
Barred Rocks, Reds, Anconas.....	4.25	8.00	15.00	145.00
White & Buff Rocks, White Wyandottes.....	5.00	9.00	17.00	150.00

Ref. Royal Oak Savings Bank. Order direct from this ad. in full confidence. DEAN FARM AND HATCHERY, Box 21, Birmingham, Michigan.

PROGRESSIVE CHICKS

Sturdy, strong Chicks from good, pure-bred flocks on free range.

	50	100	500
100% Live Delivery Guar. Postpaid prices on	\$6.50	\$13.00	\$60.00
Buff and Brown Leghorns, Anconas.....	7.00	14.00	65.00
Barron Strain White Leghorns.....	8.00	15.00	70.00
Barred Rocks, S. C. Rhode Island Reds.....	5.25	10.00	45.00

Mixed Chicks for Broilers.....
Special prices on 1,000 to 10,000. Ref., Zeeland State Bank. Order right from this ad in full confidence of getting what you want. Free Circular.
PROGRESSIVE POULTRY FARMS, BOX E, ZEELAND, MICHIGAN.

CHI X We make no extravagant claims. We know you want GOOD CHICKS and that is just what we will furnish you, from good, bred-to-lay, pure-bred flocks, carefully selected. Our business has been built up by having satisfied customers.

	25	50	100
100% Live Delivery. Postpaid prices on	\$4.00	\$7.50	\$14.00
White, Brown & Buff Leghorns.....	4.25	8.00	15.00
Barred & White Rocks, Reds, Anconas.....	5.00	9.00	17.00
White Wyandottes, Buff Rocks.....	5.00	9.00	17.00

5% discount on orders for 500; 10% discount on orders for 1000 and over. Ref., Branch County Savings Bank. Order right from this ad. BOX 53, COLDWATER, MICHIGAN.

Poultry

SANITATION PROBLEMS.

DURING the round-up poultry meetings, Dr. H. F. Stafseth told us that most poultry diseases are spread by droppings. Some are spread by mouth discharges. Leaving diseased birds around spreads disease and if a hog eats a dead chicken infected with avian tuberculosis the hog may be infected. Infected litter may be carried from one pen to another on the shoes of the poultryman.

In discussing fowl plague, Dr. Stafseth said that no attempt has been made in the past to disinfect poultry shipping crates. Shipping crowded crates of hungry birds causes them to infect each other from contaminated droppings. Hungry, emaciated chickens are less resistant to disease.

Potassium permanganate cannot kill germs quickly, but will prevent multiplication if enough is used. One-fifth teaspoonful in a gallon of water is all right in severe cases but is too much to use right along.

Stimulating hens above normal causes them to drop below normal when the stimulant disappears. In Wisconsin the chicken pox was spread among flocks in new houses by visitors who came to inspect the houses. With the present funds available the college is not in position to handle poultry diseases in the way it should be done.

THE POULTRY OUTLOOK.

THE general outlook of the poultry industry for the ensuing twelve months was never brighter. Here are some factors worthy of the consideration of every poultry raiser: Egg prices will, in all possibility, maintain a very satisfactory level during the ensuing twelve months. The high price of feed during the past year will have a tendency to discourage many poultry keepers from branching out to any large extent. It will, likewise, encourage poultry flocks on the farms in the corn and wheat growing sections of the country to be materially curtailed on account of the very attractive prices which the growers are receiving for their grains when marketed direct. The general hysteria and chaotic condition growing out of the embargo and fowl pest situation has, with a doubt, discouraged many people from keeping as many birds as usual. Conditions in general point to a reduction in the number of fowls kept on farms and on poultry establishments. Although this reduction may not be excessive it will, no doubt, hold down a surplus production which will mean a supply of poultry and eggs possibly below the normal which is bound to mean good prices.

Then there is again the fact, that the present condition in the grain market will mean a large increase in the acreage planted in corn and wheat, which will mean lower prices when a new crop comes in. It is the same old story over and over again. During periods of high prices there is a tendency to increase the volume of the product which is bringing the attractive price, which immediately results in an over-production and a decrease in price. In planning one's poultry activities for the year it seems safe to assume that the ensuing year will see a material reduction in feed costs. This prediction is subject to modifications resulting from foreign demand for our cereal crops, which, of course, in its final analysis will depend upon foreign acreage and foreign yields.

The baby chick business is experiencing an exceptionally fine season, due to the early opening of spring with hatches that are remarkably good. The demand for chicks seems to be up to normal, especially the demand for early chicks. The poultry disease and embargo situation has not



FREE BOOK

Tells You What to Feed

Written by experienced poultry men—not in technical language—a common-sense discussion in a simple, easy-to-understand manner. Full of good advice and hints on care and feeding. This book should be in every poultry raiser's home.

Keep Baby Chicks Alive

Get More Eggs from Hens

Don't blame the chick for dying—it would rather have lived; and it's not the little speckled hen's fault that she doesn't lay. You are to blame. Feed them right—they need a balanced ration. You need not take our word for it, but ask any successful poultry raiser about the value of Collis Process Pure Dried Buttermilk in mash feeds. At least 10% should be added to all mash feeds—20% is not too much.

Collis Process Pure Dried Buttermilk is packed in 8 1/3, 25, 50 and 100 lbs.

No doubt your dealer can supply. If not, write us for free feeding book and give us your dealer's name.

COLLIS PRODUCTS CO.
Dept. 295, General Offices: Clinton, Iowa



140 Egg Incubator \$13.25

30 Days Trial

Freight Paid east of the Rockies. Hot water, copper tanks—double walls—dead air space—double glass doors—a real bargain at \$13.25. Shipped complete, set up ready to use.

140 Egg Incubator and Brooder	\$17.75
180 Egg Incubator Alone	\$15.75
180 Egg Incubator and Brooder	\$22.00
250 Egg Incubator Alone	\$22.75
250 Egg Incubator and Brooder	\$31.00
340 Egg Incubator Alone	\$30.75

Made of California Redwood. Order direct from this ad. 30 days trial—money back if not pleased. If not ready to order now, don't buy until you get our 1925 catalog which shows larger sizes up to 1000 eggs. (8)

WISCONSIN INCUBATOR CO. Dept. 114 Racine, Wis.

CHICKS

FROM REAL BARRON

Single Comb White Leghorns

START RIGHT

Your future success depends on your foundation start. Start with OTTAWA stock, chicks, or eggs. Then you will have layers that will give you the largest production. Write for your copy of our valuable catalog and price list.

Ottawa Hatchery & Poultry Farm,
R. 10, HOLLAND, MICH.



SUNNYBROOK CHICKS

Husky Livable Chaps

If you want healthy, vigorous, pure-bred chicks from flocks carefully selected and tested for heavy laying and standard qualifications typical of the variety they represent, chicks that will mature quickly and improve your flock, then you want "SUNNYBROOK" chicks. We specialize in S. C. W. Leghorns, \$13 per 100; Barred Rocks, \$15 per 100; Rhode Island Reds, \$16 per 100; and White Wyandottes, \$18 per 100. In lots of 500 or more 50c per 100 less. 100% live delivery guaranteed. Postage paid. Catalog free.

SUNNYBROOK POULTRY FARM,
HILLSDALE, MICHIGAN.



CHICKS WITH PEP

Ohio Accredited. Every bird passed by inspector trained and authorized by the Poultry Department Ohio State University. Prize winners at many shows from National down. Developed for high egg production for many years. Free range flocks in best of health. 100% live delivery. Thirteen breeds. Catalog free. Prices low, quality considered.

Helgate Chick Hatchery, Box BM, Helgate, Ohio

BABY CHICKS

10 FREE If ordered in advance

9c and Up 20 Varieties Pedigreed Cockerels from head laying pens of Michigan. Guaranteed blood tested. Trapnest 200 eggs up. Write for free circular before buying elsewhere. **BECKMAN HATCHERY, 26 Lyon St., Grand Rapids, Mich.**



Baby Chicks and Ducklings

Many thousands weekly. Popular & Rare Breeds, Ducklings, Goslings, Baby Toms, Bantams & Games. Prices reasonable. **Wellington J. Smith Company, 612 Davis-Farley Bldg., Electric Incubators and Brooders Cleveland, Ohio.**

LAKEVIEW POULTRY FARM

Tancred Strain
WHITE LEGHORNS
Park's BARRED ROCKS
Single Comb & Rose Comb
RHODE ISLAND REDS
SUPERIOR CHICKS
IN ALL BREDS

Missed One Day in Two Years

Coleman, Mich., Jan. 10, 1923. Lakeview Poultry Farm, Holland, Mich.: "I have a flock of nice Rhode Island Reds which came from your poultry farm and in two years they have missed but one day in laying. Please send me catalog for this year.—Mrs. Mabel Nelson Long." That's only a sample of what Lakeview flocks are doing.

Wh. Leghorns B'd. Rocks R.I. Reds

White Leghorns, Barred Rocks and Rhode Island Reds vie with each other in high production. Our Leghorn stock is Pure Tancred. Barred Rocks pure Parks strain. Our catalog not only tells what chicks to buy but how to grow them into strong pullets.

LAKEVIEW POULTRY FARM, Holland, Mich., R. R. 8, Box 6.



HIGH GRADE STOCK
AT PRICES YOU
Can Afford to Pay.

Bred for eggs, not for show feathers. Every chick from our farm is of a proven egg-laying strain.

ORDER FROM THESE PRICES.

GRADE AA.	50	100	500	1000
Barron Leghorns (Pedigreed)				
Males	\$8.50	\$16	\$75	\$145
Barred Rocks (Aristocrat Strain)	9.50	18	85	165
Br. Leghorns	8.50	16	75	145
GRADE A.				
White Leghorns	\$7.00	\$13	\$62	\$120
Barred Rocks	8.00	15	72	140
Br. Leghorns	7.00	13	62	120
Broilers, Heavy \$12 per 100. Mixed \$9.00 per 100.				
100% Live Delivery. Catalog Free.				

Order Pullets Now, for May 15 Delivery.

GREAT NORTHERN HATCHERY,
R. 3, Box 56, Zeeland, Mich.

CHICKS THAT LIVE

From sturdy, healthy free-range flocks. Fluffy, lively youngsters that should grow fast, and get on an all-year-round egg laying basis. From carefully mated high-egg-producing strains, tested and culled to insure exceptional vigor and laying ability. This stock and our scientific hatchery produces chicks that live, grow fast, lay early. Selected for uniform size and color so they will grow into beautiful flocks of which you'll be proud. Place your order before our output is taken by others. Order new for present or future delivery. Leading varieties. Live delivery guaranteed. Postpaid. Write for new chick booklet. H. L. Carl, Box 100, Montgomery, Mich.

SEND NO MONEY FOR SILVER LAKE CHICKS

Just mail your order, we ship C. O. D. and guarantee prepaid 100% live delivery of sturdy, purebred chicks from healthy, bred-to-lay flocks. Wh. Br. Buff Leghorns, 13c; Bd. Rocks, S. C. Reds, 14c; Wh. Rocks, 14c; Buff Rocks, Buff Orps., Wh. Wyand., 16c; Mixed, 10c; Blk. Minorcas, 15c. Silver Lake Egg Farm, Box M, Silver Lake, Ind.

BABY CHICKS FROM OUR S. C. WHITE LEGHORNS

Every bird in our flock is tramped every day in the year. If you want to secure Baby Chicks at a reasonable price from high record stock, do not fail to send for our catalogue. STRICK POULTRY FARM, R. 4, Box M, Hudsonville, Mich.

Green Lawn Chic Prices.

White Leghorns, 13c; Barred Rocks, R. I. Reds, 15c; Black Minorcas, White Rocks, White Wyandottes, 16c; Heavy mixed for broilers, 13c; Light, 11c. Postage paid. 100% live delivery. Our 15th year. We produce only one grade, the BEST. Reference, Fenton State Bank. GREEN LAWN POULTRY FARM, Gus Hecht, Prop., Fenton, Mich.

CHICKS Barred Rock, Eckhard Strain, White Leghorns and Brown Leghorns. Guarantee full 100% alive. Free Delivery. HILLVIEW POULTRY & HATCHERY, C. BOVEN, Prop., R. 12-B, HOLLAND MICHIGAN.



English Producer White Leghorn Larger size 5-lb. hens. The kind for farmers and egg producers. Strong husky chicks our specialty. \$15 per 100. Eggs \$8.00. Free Catalog. Mapleide Leghorn Farm, Box O, Tremont, Ill.

Chicks and Hatching Eggs

from Leghorn Flock which produced first and third pens in 1924 Michigan Contest. Every male son of 240 or more eggs per hen. Chicks \$20, eggs \$9 per hundred. W. C. ECKARD, Paw Paw, Mich.

BABY CHICKS

\$12.50 Per 100 and Up

We are listing 12 varieties of Pure Blood Farm range stock. Chickens, Ducks and Guineaes. Write for price list. CLINTON HATCHERY & POULTRY FARMS, Wilmington, Ohio.



QUALITY CHICKS

Pure Bred Tom Barron English S. C. White Leghorns. From healthy, winter-laying, free range, Hoganized flocks. Postpaid. Live Delivery guaranteed. Get our low prices before you buy. Write for prices and free catalog. Lake Bluff Hatchery, Route No. 1, Holland, Mich.

interfered materially with the shipment of chicks, although it has, no doubt, discouraged the demand to a limited extent. The immediate cleaning-up of the embargoes will, undoubtedly, bring about a somewhat increased demand for later chicks. If there was ever a time in the business of poultry raising that would warrant at least a normal effort along poultry lines, it is right now. A continued heavy demand for eggs and poultry at substantially attractive prices, with a probably very material decrease in the largest item of expense, namely, feed, should be sufficient to encourage everyone to do his utmost in this field of agricultural effort.

CHICKS DIE IN SHELLS.

Could you tell me why our eggs didn't hatch? We use incubators, have used them for a number of years, and this spring our eggs are fertile to a greater extent than any other year, but the chicks die just before hatching. Last year we had thoroughbred roosters, and from them we kept stock for this year. Naturally they are related with our layers. Would that produce weak stock?—S. H. R.

Chicks die in the shell because of lack of vigor in the breeding stock, lack of moisture, overheating or chilling of the eggs and other causes which are hard to explain. It is a fact that most poultrymen find the eggs running close to ninety per cent in fertility and even then have to be satisfied with fifty per cent hatches on the average for the season. A lot of chicks seem to die in the shell during artificial incubation in spite of the best of management.

I do not think the fact that some of the cockerels are related to some of the hens would be the only cause for the poor hatches. Inbreeding often brings good chicks if the parent stock are vigorous. The eggs laid in late winter are not usually as hatchable as the spring eggs. I would turn the flock on range and feed plenty of green feed and sour milk. The hatchability of the eggs will probably improve with spring conditions on the range.

HOUSE FOR THIRTY-FIVE HENS.

I would like to build an ideal hen house and scratching pen for thirty-five hens. What size and style would give the best light? Is a concrete floor damp?—O. S.

A general rule is to allow four square feet per bird which would mean 140 square feet of floor space for thirty-five birds. But the birds in a small flock have a very limited floor space if the capacity of the house is figured at the regular rate. I do not like houses less than sixteen feet deep as the roosts should be rather far back from open front windows.

A small shed-roof house sixteen feet deep and eighteen feet wide will give you 288 square feet of floor space which allows a little over eight square feet per bird and this is better than four square feet per bird when housing small flocks.

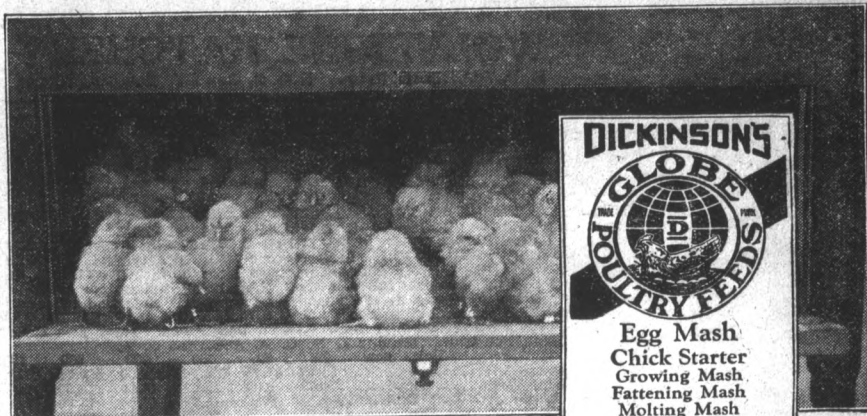
A concrete floor is not damp if built up on sand or cinders and then covered with a coating of asphalt paint. You might write the U. S. Department of Agriculture, Division of Publications, and the Michigan Experiment Station for their free bulletins on poultry house construction.

PASTURE FOR GEESE.

Could you give me any information on sowing anything on fresh plowed ground for geese? Would field peas be all right, or would rape be better?—R. S.

Geese are such successful foragers on any type of grass land that special crops are seldom planted for their use. Geese seem to thrive on any green feed that cows will eat. I think a pasture of red clover and alsike is about as good for geese as any green feed, but other green crops could be used.

Your Fall and Winter Profits DEPEND on WHAT You Feed NOW!



DICKINSON'S
GLOBE
POULTRY FEEDS
Egg Mash
Chick Starter
Growing Mash
Fattening Mash
Molting Mash
Chick Scratch
Growing Scratch
Poultry Scratch

THE MONEY YOU'LL MAKE

from this season's chicks depends on your ability to raise them. Every chick hatched is a money-making opportunity—but no more. Almost anybody can raise 50 chicks out of a hundred, but the poultry man or woman who really makes money raises 80% to 95%. The percentage of chicks you will raise depends on what you do now.

If You Want to Raise 95 Out of 100 of Your Chicks

—it is vitally necessary that you pay particular attention to their food requirements. While no food should be given chicks for the first 48 to 60 hours after hatching, EVERYTHING DEPENDS ON THE FOOD YOU SELECT

FOR THEM after that period.

The egg yolk in the chick's body during its first 60 hours is the ideal chick feed. It contains the right food elements in the right proportions—and is rich in health-giving vitamins.

The Closer You Duplicate Nature's "Chick Feed," the More Chicks You'll Raise to Sell

TO RAISE 95 OUT OF 100 CHICKS, use a chick feed that approximates, as nearly as possible, this natural "chick feed"—the yolk in the chick's body. Don't use haphazard feeds. They may lack one or more of those vital food elements—be improperly proportioned—or

fail to contain sufficient vitamins, the absence of which in chick feeds is responsible for the ravages of certain chick-killing diseases.

For the sake of your profits next fall and winter, don't experiment! Don't gamble on fads or theories! Play safe!

For Greater Profits With Certainty

—use GLOBE CHICK STARTER and GLOBE GROWING MASH. Both contain the finest of necessary ingredients, correctly balanced, and rich in health-giving vitamins.

of strength, vigor and health that will insure greater profits for you.

Our Reputation—Your Assurance

Doesn't it stand to reason that when a concern with an enormous organization like ours, the largest plant of its kind in the world, with 22 years' experience, experimental yards, experts—recommends a certain method of chick raising and certain food compounds, that they must be good?

They are. They have to be. Our reputation depends on their success for thousands of poultry raisers.

Investigate the GLOBE METHOD of Chick Raising

Mail the coupon today for our free book, "POULTRY PROFITS." Read Pages 31 and 37 and learn of the chick-raising method we have found best in our experimental plant. This method PLUS Globe Poultry Feeds will enable you to get every profit-dollar there is in your chicks.

But to do it, you must act now. This is the time to make possible bigger fall and winter profits. Get started right. Order Globe Chick Starter from your dealer today. He will also give you our book describing our unsurpassed chick-raising method. Or mail in coupon and we will send you a copy free.

THE ALBERT DICKINSON CO.
Chicago Minneapolis



THE ALBERT DICKINSON CO.
2755 West 35th St., Chicago, Ill.

Gentlemen:
Please send me without cost or obligation a copy of your booklet "Poultry Profits." I enclose 4c in stamps to cover cost of packing and postage.

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



English Type WHITE LEGHORNS

The Big, Deep Bodied Hens with the Large Combs, That Produce the Large White Eggs.

The chicks we offer you this year are from extra selected hens, sired by males out of hens that laid 270 eggs in 365 days these males being sired by a male from a 300-egg hen. The price asked for them is very reasonable. They will bring you bigger profits and absolute satisfaction.

You will be benefited by our 15 years experience hatching and shipping chicks. Our stock grows up uniform in size, has great vitality and brings big returns in our customers' hands. Let us mail you our catalog with prices. 100% live arrival guaranteed.

NINE WEEKS OLD PULLETS IN MAY.

WOLVERINE HATCHERY

H. P. WIEREMA, Prop. R.R. 2, Box 97 Zeeland, Mich.

BRED FOR SIZE,
TYPE and EGGS
SINCE 1910.

ONE MILLION "GOOD LUCK" CHICKS

LEADING BREEDS - LOWEST PRICES!



GET OUR INSPECTED "GOOD LUCK CHICKS" THIS SEASON. THOUSANDS OF PLEASED CUSTOMERS TESTIFY TO THEIR WONDERFUL QUALITY, TYPE, BEAUTY AND EGG PRODUCTION. Send for our BIG, BEAUTIFUL, COLORED, INSTRUCTIVE ART BOOK FREE showing our own birds in their NATURAL COLORS. Read the many testimonials full of praises which highly endorse our chicks. Our Advice, before you buy elsewhere, is to demand a photo of the birds that produce the eggs from which the chicks are hatched. WE GUARANTEE OUR BIRDS FREE FROM EUROPEAN POULTRY PEST AND OTHER DISEASES. 100% Live Delivery POSTPAID. Bank Reference. Member I. B. C. A. and Ohio C. A.

ALL LEADING VARIETIES	Price new	25	50	100	300	500	1000
White, Buff, Brown Leghorns, Anconas.....	\$3.75	\$7.00	\$13.00	\$38.00	\$60.00	\$118.00	
Barred and White Rocks, Rhode Island Reds.....	4.50	8.00	15.00	44.00	72.00	138.00	
Black Minorcas, White Wyandottes, White and Buff Orpingtons.....	4.75	8.50	16.00	47.00	77.00	144.00	
Buff and White Minorcas, S. L. Wyandottes, Light Brahmas.....	6.00	11.50	21.50	60.00	99.00		
Assorted, all heavies \$11.50 per 100 straight. Odds and ends, Mixed Chicks, \$9.50 per 100.							

NEUHAUSER HATCHERIES, BOX 52, NAPOLEON, OHIO

P-U-R-E B-R-E-D C-H-I-C-K-S



From carefully selected, bred-to-lay, high producing strains in the following leading varieties: (S. C. WHITE AND BROWN LEGHORNS, ANCONAS, BLACK MINORCAS, BARRED ROCKS).

We have been in the business many years and our experience enables us to produce Chicks for you that will prove entirely satisfactory to you, just as they have proven year after year with our thousands of old customers.

We guarantee High Quality and 100% Safe Arrival Postpaid. We also guarantee

100 PER CENT ARRIVAL IN GOOD HEALTH

Catalog giving full particulars and quoting our low prices in detail mailed free on request.

American Chick Farm, Box 115-D Zeeland, Mich.



Pure-Bred Big Value BABY CHICKS

OHIO ACCREDITED, DELIVERY GUARANTEED. Order direct from this ad today and get chicks which have the authority of Ohio State University behind them. Our breeding stock is inspected and banded by experts trained and authorized by them.

Prices (Postpaid) On:	25	50	100	500	1000
S. C. White, Br. & Buff Leghorns.....	\$3.25	\$6.50	\$13	\$60	\$118
S. C. Mottled Anconas.....	3.50	7.00	14	65	128
S. C. Bk. Minor, Bd. Rocks, S. C. R. I. Reds.....	3.75	7.50	15	72	138
Wh. Rocks, Wh. Wyandottes, R. C. R. I. Reds.....	4.00	8.00	16	77	144
S. C. Buff & White Orpingtons.....	4.25	8.50	17	83	160
Jersey Black Giants.....	4.50	15.00	30		
Odds & Ends (not shipped under accredited label).....	2.50	5.00	10	50	100

Free from European fowl pest. Order today with Check or Money Order. Catalog free. SPECIAL QUALITY CHICKS. We can furnish also chicks of especially high breeding. Write for particulars and prices. WOLF HATCHING & BREEDING COMPANY, BOX 4, GIBSONBURG, OHIO.

WASHTENAW Baby Chicks

Chicks that are lively and healthy from pure-bred carefully selected stock. One-fifth down books order. Good poultry judges say our flocks are unusually good. Order today. Last year we were not able to supply the demand. Order early this year. Pure-bred, carefully selected, 100% live delivery.

Prices on (prepaid)	25	50	100	500	1000
Bd. Rocks.....	\$4.25	\$8.00	\$15.00	\$72.00	\$140
R. I. Reds.....	4.25	8.00	15.00	72.00	140
Wh. Rocks.....	4.50	8.50	16.00	77.00	150
Wh. Wyandottes.....	4.50	8.50	16.00	77.00	150
Wh. & Br. Leghorns.....	3.75	7.00	13.00	62.00	120

Ref.: Farmer's & Mechanic's Bank, this city.

WASHTENAW HATCHERY,
Geddes Road
Ann Arbor, Michigan



DILIGENT CHICKS DID IT

Postpaid prices on	50	100	500
Single Comb White Leghorns.....	\$6.25	\$12.00	\$57.50
Barrel Plymouth Rocks.....	4.25	7.75	15.00
S. C. Mottled Anconas.....	4.75	9.00	42.50
Mixed Chicks.....	4.75	9.00	42.50

Low in price, high in quality. Order right from this ad, or send for our catalog. If close in call on us, we are located on the M-11 cement road, 2 Miles north of Holland. We have pullets for sale after May first.

DILIGENT HATCHERY, Holland, Mich. Harm J. Knoll, Owner.



Pure Bred Baby Chicks \$8.00 Per 100 and up

We are now booking orders for May and June chicks, from our high grade Anconas and White Leghorns. These chicks are from extra selected hens mated to Tancred and Sheppard males. We insure our chicks for one week. Write for our catalog and prices before you buy, we can save you money.

M. D. Wyngarden R. 4 Box 6, Zeeland, Michigan

Riverview Chicks

big fluffy, by prepaid parcels post, 100% live, and good condition guaranteed. From our Strong, Healthy, English type White Leghorns. Culled by expert from State University. We hatch all our own eggs and can save you money on that chick-order. Become one of the many satisfied customers.

Gentlemen:

I am an old customer, having bought chicks from you every year for a number of years back and have always had good results from your stock, and am confident that you give everybody a square deal. The chicks that I received last year are selling out the eggs, and have all winter since last fall. Kindly send your free mating list with prices. Yours truly, W. F. Agard, R. 1. RIVERVIEW POULTRY FARM, Route 2, Box 94, Zeeland, Mich.

Benton Harbor, Mich., Feb. 2, 1925.

Blood-Tested Baby Chicks

Barron Strain S. C. W. Leghorns. We furnish chicks from one, two, and three-year-old tested breeders, mated with high record cockerels, chicks that will positively pay you a profit in eggs this fall and winter. Why speculate with just chicks when you can buy the best "Quality" at "Live and Let Live" prices. Get our circular before you place your order. Satisfaction and 100% live delivery positively guaranteed.

City Limits Hatchery, Rt. 5, Box 11 Holland, Michigan.

PLACING BEES.

I would like to know if I would have a right to set bees in a garden near the road fence? Or what distance is road?—A. J. B.

You have a right to set the bees anywhere on your property that you desire. There is no statute which provides the distance bees must be from the highway. In this connection, however, you should remember that you are responsible for any damage that the bees might do as a result of stinging passersby or causing their teams to run away. For this reason, I would suggest that it might be safer to place the bees at a greater distance from the highway.—B. F. Kindig.

LIVER ENLARGED.

My hens do not eat, and sit around for a few days. Their heads will get light colored and they get weaker, and then die. We opened two and found their livers about three times their natural size and all full of white spots. Is there anything I can give to prevent any more getting that way? I have fed shelled corn and gave them plenty of grit, and put permanganate of potash in the water.—Mr. R.

In fowl typhoid the liver is enlarged and covered with greyish patches. In tuberculosis there is rapid emaciation and spots on the liver. A ration of corn and grit during the winter may result in digestive disorders which make the hens more subject to other diseases. Try using a dry mash of equal parts bran, middlings, ground oats, ground corn and meat scrap. The bran in the mash and the easily digested ground-grains help to prevent digestive disorders and improve the vigor of the flock.

Feed green feed for succulence. It adds bulk to the ration. Sprouted oats, mangels and cabbages are satisfactory. There is no cure for either tuberculosis or fowl typhoid. Such troubles must be prevented by keeping up the vigor of the hens through proper feeding and sanitary housing.

CHOOSING THE BREED.

Kindly tell me which is the best breed of chickens to use in this part of the country for egg production, and also what breed for market, and all-around purposes.—C. M. H.

The White Leghorns seem to be the most satisfactory breed for commercial egg production. When both eggs and meat are desired it pays to keep one of the general-purpose breeds, like Barred Plymouth Rocks, Rhode Island Reds or White Wyandottes. This brief list does not mention all the breeds that are good for egg production or for egg and meat production. It is the individuals in a breed and not the breed name that determines the profits from a flock of poultry.

If the hens that lay white eggs and the hens that lay brown eggs are managed the same, I think there is very little, if any, difference in the quality of the contents. I have heard owners of the brown egg breeds say that their eggs seemed to look richer and probably contained more food value than white shelled eggs, but scientific investigation seems to indicate that the eggs of the same weight are about equal in food value regardless of the color of the shell.

It is often found that White Leghorn eggs will hatch a larger per cent of chicks than some brown egg breeds. I think the vigor of the stock is of more importance than the color of the egg in determining hatchability.

PUT CLEAN STRAW IN NESTS.

Occasionally add new straw to the nests. The old litter is gradually broken up and packed into the corners, which frequently leaves a bare center. Eggs dropped on the bare boards may be checked or broken. A broken egg smears the nesting litter and is a very common cause of dirty eggs.—K.



\$502 Net Profit In 3 Months From 250 B.F. White Leghorn Pullets

That's what Mr. I. Wade of Fennville, Mich. made in three months time from pullets raised from chicks he bought of us last spring. You can make big money with our profit making chicks.

CHICKS - - - CHICKS

Our stock is strong, healthy, free range, Tancred and Tom Barron White Leghorns—S. C. Rhode Island Reds—Parks' Barred Rocks—the best blood lines in the country. 100% live delivery guaranteed, postpaid. Big, fine catalog free.

8 to 10 Weeks-Old Pullets

We specialize in 8 to 10 weeks-old pullets. Extra choice ones at prices that please. Write today.

Brummer-Frederickson Poultry Farm
Box 20 Holland, Mich.



CHICKS—EGGS—PULLETS
Guaranteed to be from high producing stock. EGGS—\$5 per 15. From Aristocrat strain exhibition Barred Rocks and Fairview Reds. CHICKS Special Star Mating, Barron White Leghorns & Mottled Anconas \$15 per 100. Selected Utility Rocks and S.O. Reds, \$13 per 100—Selected Grade A Barron White Leghorns and Mottled Anconas. FAIRVIEW POULTRY FARM, Box 203, Zeeland, Mich.

Chicks---Pullets

High quality stock. Delivery 100% live and strong guaranteed. Chicks every week. Eight weeks and 8 mo. Pullets.

Barred and White Rocks, Reds, White and Silver Laced Wyandottes, White and Buff Orpingtons, Black Minorcas, Anconas, White, Brown and Buff Leghorns. Send for Chick or Pullet Circular with price list.

STATE FARMS ASSOCIATION

Kalamazoo, Michigan.

Active Member International Chick Association

Member Michigan State Farm Bureau

Barred Rock Baby Chicks

We hatch only Barred Rock Chicks from choice selected stock shipped by prepaid parcel post to your door, satisfaction and a live delivery guaranteed. CIRCULAR ON REQUEST

THE KAZOO HATCHERY CO.

R. R. 3 Kalamazoo, Mich



W. LEGHORN-BLACK MINORCA-ANCONA

Official International Egg Contest Records up to 254 Eggs.

Few can equal our PRICES.

No one can beat our QUALITY.

Before ordering your 1925 chicks send for our CATALOG. Our LOW PRICES will astonish you.

Over 20 years experience assures your satisfaction.

Established in 1904 Sent by PARCEL POST PREPAID. 100% Live Delivery Guaranteed. PINE BAY POULTRY FARM, Holland, Michigan.



White Leghorns

Tancred - Hollywood - Barron Sired S. C. White Leghorn chicks. Pure-bred. All free range. Best winter laying strains. Selected 100, \$13; 500, \$62.50; 1,000, \$120. Selected Star-A, 100, \$15; 500, \$72.50; 1,000, \$140. Postpaid. Full live arrival guaranteed. Illustrated catalog free. Highland Poultry Farm, R. 8, Box C, Holland, Mich.

L-O-O-K!

Can ship chicks of high grade quality at once. Barred Rocks, Reds, White Rocks, 150 each. Wyandottes, Buff Orpingtons, Buff Rocks, 160. White, Brown Leghorns, 120. Anconas, 130. Mixed heavies, 120. Mixed light breeds, 90. May chicks \$1.00 per 100 less. Order direct from this adv. If less than 100 is wanted add 35c extra. Hatching eggs. Free circular tells about 15 first class varieties. Best Reference. Lawrence Hatchery, R. 7, Grand Rapids, Michigan.



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 eventually buy. Shipped postpaid. 100% Live delivery guaranteed. Illustrated catalog sent free. STANDARD HATCHERY, Box A, Zeeland, Mich.



BABY CHICKS

Ten FREE

with every 100 order. Plymouth Rocks, White Rocks, White Wyandottes, Reds and White English Leghorns. Order now and get the best at DURAND POULTRY FARM & HATCHERY, Fenton, Mich., Box 404.

White Diarrhea

Splendid Success of Mrs. Ethel Rhoades in Preventing White Diarrhea

Mrs. Rhoades' letter will no doubt be of utmost interest to poultry raisers who have had serious losses from White Diarrhea. We will let Mrs. Rhoades tell it 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. 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., Dept 508, Waterloo, Ia., for a \$1.00 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."—Mrs. Ethel Rhoades, Shenandoah, Iowa.

Cause of White Diarrhea

White Diarrhea is caused by the Bacillus Bacterium Pullorum. This germ is transmitted to the baby chicks 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. C. M. Bradshaw writes: "I used to lose a great many chicks from White Diarrhea, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 508, 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.

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 (or \$1.00 for extra large box)—give it in all drinking water and watch results. You'll find you won't lose one chick where you lost dozens before. It's a positive fact. You run no risk. We guarantee to refund your money promptly if you don't find it the greatest little chick saver you ever used. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of our guarantee.

WALKER REMEDY CO., Dept. 508, Waterloo, Iowa.

Send me the () 50c regular size (or () \$1.00 extra large size) package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to promptly 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 about two and one-third times as much as small.

WATCH THE HENS' HEALTH.

DURING the evening it pays to give the hens an occasional inspection on the roosts to determine their physical condition. A hen is covered with a thick coat of feathers and she can become very thin without the fact being noticeable, either on the range or on the poultry house floor.

This inspection also locates the birds that are poor feeders. They should be culled and marketed, as they cannot be profitable layers without the capacity of egg-producing food.

Examine the dropping boards each morning. A glance will tell if any of the birds are afflicted with disorders. This is apt to be due to errors in feeding and prompt measures can be taken to improve their condition before the ailment makes serious inroads on the vitality of the flock.

Note the hens at feeding time. Any bird that shows a reluctance in going after the scratch feeds is not a thousand miles from being sick. Also those hens that hump up in the corner or refuse to leave the roost at feeding time need a prompt inspection, to locate any disorders that may spread to other members of the flock.

Watch for colds. Birds with watery eyes need prompt attention. Birds that have a smeary spot on the feathers where they have rubbed their eyes should be isolated and the cold cured before they are permitted to eat and drink with the flock, for they may spread the disease if left with the flock.

A colony house makes a suitable isolation hospital for sick birds. It pays to be prompt in finding sick birds as in this way they can be culled out until the entire flock consists of vigorous birds which are seldom, if ever, sick.—W. E. Farver.

PRODUCING CLEAN EGGS.

IT is necessary to have the eggs clean in the nests, because washing eggs takes time and also removes the natural bloom. One common cause of dirty eggs is the habit of pullets roosting in the nests. This can soon be broken up by going through the houses just after roosting time and removing such birds to the roosts. Spending a few minutes in the houses just at sundown to frighten the pullets from the nests will teach them to select another roosting place themselves. Then they are most apt to go back to the regular roosts each night.

Walking on dirty dropping boards is another cause of dirty eggs. Some poultrymen nail strips of two-inch mesh wire under each roosting section. This permits the droppings to fall through to the boards but keeps the hens from walking on the boards. They have to hop from perch to perch and then down into the litter and will have cleaner feet when going on the nests in the morning. The mesh of the wire may be fine enough to catch any eggs laid during the night and save them from breaking.—R. G. K.

MATING GEESE.

I have two young geese, two young ganders and one old gander. They run together and are peaceable. Am told I must only let one gander run with the geese or the eggs will not hatch. How many geese does one gander mate with?—R. B. P.

The Toulouse, Embden and African geese are usually mated in trio, although three geese to a gander is sometimes used. With the Chinese geese, a gander is sometimes mated with five or six geese. I do not think the fertility of the eggs will be injured by having more than one gander in the flock. If the old gander is a bird of good type he would be sufficient and the young ganders could be sold or mated purchased for them if more breeding stock is desired.

Well bred chickens well fed constitute the chief essential of success in the raising of poultry.

1,000,000 Babion's Quality Chicks

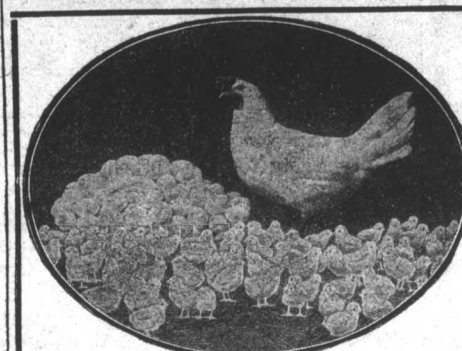
Bred for 1925. Breeders of highest egg producing strains in all leading varieties. You will be greatly pleased with results obtained from our heavy layers.

100% Live Delivery Guaranteed. Postpaid prices	25	50	100	500	1000
English White Leghorns	\$3.75	\$7.00	\$13	\$62	\$120
Single & Rose C. Brown Leghorns	3.75	7.00	13	62	120
S. C. Buff & Black Leghorns	4.25	8.00	15	72	140
Barred Rocks, Anconas	4.25	8.00	15	72	140
S. C. & R. C. R. I. Reds	4.50	8.75	17	82	160
White and Buff Rocks	4.50	8.75	17	82	160
White Wyandottes, Black Minorcas	5.00	9.50	19	92	180
Buff and White Orpingtons	5.00	9.50	19	92	180
SL Wyandottes, LL Brahmas, Langshans	5.00	9.50	19	92	180

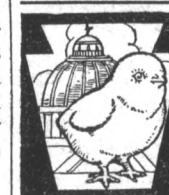
15 other rare varieties. Mixed, all Heavies, \$12 per 100. All Light, \$10 per 100. Light and Heavy Mixed, \$11 per 100. **DUCKINGS**, Pekins, 25, \$7.50; 50, \$15; 100, \$30. White and Fawn Runners, 25, \$6.50; 50, \$13; 100, \$25. Remember quality goes ahead of price. Consider this when you place your order and please note we guarantee 100% Live Delivery and Chicks that will please you. No Chicks shipped C. O. D. At least 10% of purchase price must come with order. Bank Reference. You cannot go wrong in ordering direct from this ad. Chicks from EXTRA SELECT FLOCKS, \$3 per 100 higher than above prices, and Chicks from our Blue Ribbon Pens, \$5 per 100 higher. Write at once today.

BABION'S FRUIT & POULTRY FARM,

FLINT, MICH.



Reliable Hatchery and Poultry Farm, Box 3 Holland, Mich.



KEYSTONE HATCHERY

QUALITY CHICKS Hatched from heavy laying, contest winning flocks. BLOOD TEST—winners in leading Laying Contests such as the Michigan International Contest, where our entries won HIGH HEN IN THE HEAVY BREEDS, also HIGH PEN IN THE HEAVY BREEDS. Our entries also made exceptional records in Connecticut, Missouri and Canadian Contests. We guarantee full 100% Live Arrival, Postpaid to your door. Canadian shipments by Express collect. We have 10,000 of these Quality Chicks for you each week. Write us at once for catalog, full particulars and very reasonable prices. Member International Baby Chick Association. Don't delay, get our Catalog and prices before buying elsewhere.

KEYSTONE HATCHERY, Dept. 50, Lansing, Mich.

HOLLAND HATCHERY

CHICKS from heavy winter laying stock produced by MICHIGAN'S OLD RELIABLE HATCHERY. Pioneer Breeders and Hatchers, operating the best Hatchery in the State. Pure-bred TOM BARRON and AMERICAN WHITE LEGHORNS, Anconas, Barred Rocks, Rhode Island Reds. Strong, well hatched Chicks from Hoganized, free range stock. By insured Parcel Post Prepaid to your door. 100% Live Delivery Guaranteed. 17 years experience in the business and giving absolute satisfaction to thousands. Get valuable illustrated Catalog free, and lowest prices before placing your order elsewhere. VAN APPELDORN BROS., HOLLAND HATCHERY AND POULTRY FARM, R. 7 C, HOLLAND, MICHIGAN.



Michigan Pedigreed Heavy Laying Strains

Are from champion Tancred and Tom Barron White Leghorn foundation stock. Records 265 to 302 eggs. Headed by males from International Egg Laying Contest winners. Bred and hatched by experts. Most modern equipment in Michigan. Hand picked and inspected—no weaklings. Will grow and make you a profit. Also Sheppard Anconas, Park Strain Barred Rocks; 8-week-old pullets. 100% vigorous delivery and satisfaction guaranteed. We pay postage and our prices are right. Our catalog tells the story—it's free—write for it now.

Michigan Poultry Farm, Box 4, Holland, Mich., U.S.A.

HUNDERMAN'S CHICKS

FIRST CLASS CHICKS \$8 per 100 and up. From pure-bred flocks on free range, culled by an expert. 100% Live Delivery Guaranteed. Postpaid prices 25 50 100 500 1000

English S. C. White Leghorns	\$3.25	\$6.00	\$11.00	\$52.50	\$105
S. C. Brown Leghorns	3.25	6.00	11.00	52.50	105
Barred Rocks, S. and R. C. Reds	3.75	7.00	13.00	62.50	120

Mixed Assorted, 25, \$2.50; 50, \$4.50; 100, \$8. Ref. State Commercial Savings Bank. You take no chances. Hatched in Blue Hen Incubators. 10% down books your order. Free Catalog. HUNDERMAN BROS., Box 36, Zeeland, Michigan.

Chicks Dying From White Diarrhea

How to stop it in 48 hours

A letter from Chas. N. Kittinger, of Willows, Calif., contains good news for poultry raisers who are losing baby chicks. He says:

"Twelve of my chicks had diarrhea when I started giving them Avicol. By the second day the trouble disappeared, and now they are all lively as crickets. If I had only known of Avicol sooner, I would have saved lots of chicks."

There's no doubt that Avicol is wonderful both for preventing and stopping disease in baby chicks. It has a specific action as a bowel antiseptic and regulator. Usually within 48 hours, the sick, droopy chicks are lively and healthy. A liberal supply of these tablets can be obtained by sending fifty cents to The Burrell-Dugger Co., 546 Allen St., Indianapolis, Ind. As Avicol is positively guaranteed to do the work or money refunded, it costs nothing to try. Readers will be surprised at the way chicks grow and develop, in vigorous health, when these tablets are used in the drinking water.

WORMS IN CHICKENS

Do you know that worms in chickens cause much of the sickness and losses? Do you know how to tell when worms? Do you know how to remedy worm troubles? How to avoid them? Read the new, free 64-page book by Geo. H. Lee, inventor of GERMOZONE, the famous poultry remedy for roup, diarrhea, etc. Tells also about the important troubles and diseases, not only of poultry but also of hogs—information you would have to pay many dollars for. A million copies already requested. Get one now free at the leading drug or seed store in your town, or send stamp to

GEO. H. LEE CO., Dept. 105, Omaha, Neb.

FIRST AVE. HATCHERY

Chicks from heavy laying strain, S. C. White Leghorn, mated with Eckard Cockerels from M. A. C. Also chicks from old hens, fine birds, culled stock. If chicks wanted don't delay. Send for price list. First Ave. Hatchery, Owner, John DePre, Holland, Mich.

BIG HUSKY CHICKS

From pure-bred, high quality, heavy laying, tested flocks. Great Winter Layers. 100% Live Delivery Guaranteed. Postpaid. Leghorns, 50, \$7.25; 100, \$14; 500, \$67.50. Barred Rocks, Reds, 50, \$8.50; 100, \$16; 500, \$77.50. Anconas, 50, \$7.75; 100, \$15; 500, \$72.50. Mixed Chicks, 100, \$10; 500, \$50. Bank Reference. Free Circular. WINSTROM POULTRY FARM, Box C-6, ZEELAND, MICHIGAN.

PURE BRED CHICKS AND PULLETS

From Strong—Healthy—Flocks. Book your order NOW for PURE-BRED CHICKS OR 8 WEEKS PULLETS. 100% live delivery Guarantee. Prepaid. Illustrated Circular free.

W. Leg.	25	50	100	500	1000
Anc.	\$3.75	\$7.00	\$13	\$62.50	\$120
Rocks.	4.50	8.50	16	77.00	150

We allow a liberal discount on early orders. Shady Lawn Poultry Farm & Hatchery, Zeeland, Mich., Box 5-F.

Quality Chicks

Free range. Healthy stock. Twelve varieties. Eight cents and up. Write for circular and prices. 100% Live arrival guaranteed. Bank reference. ST. STEPHEN HATCHERY, St. Stephen, O.

WHITTAKER'S TRAPNESTED REDS

Both Combs, Michigan's Greatest Color and Egg Strain. Chicks and Eggs from Vigorous, Hardy Stock. Our 10th Annual Catalog is yours for the asking. Write for it. INTERLAKES FARM, Box 39, Lawrence, Mich.

Two Popular Breeds S. C. White Leghorns \$13; mated stock. Healthy chicks. "My chicks will satisfy." JACOB DE RYKE, 1007 Pennoyer Ave., Grand Haven, Mich.

CHICKS Barron S. C. W. Leghorns. \$11 per 100. Live delivery guaranteed. Ten extra with each 100 if ordered five weeks in advance. WATERWAY HATCHERY, R. 4, Holland, Mich.

Additional Poultry Ads on Page 485



Lusty, Fast-Growing Money Makers

Superior baby chicks are bred-to-lay birds. They are trap-nested from world champion layers such as the internationally famous Tom Barron and Hollywood strains of White Leghorns.

This pedigree blood in Superior chicks is an assurance of early returns and handsome profits.

Hatched in state inspected hatchery — the largest and finest in Michigan — with a capacity of 150,000 eggs to a setting. Live deliveries to any point within 1500 miles absolutely guaranteed. Money back if not satisfied. Book your order now and receive liberal discount. Write for free catalog and price list today.

SUPERIOR POULTRY FARMS
Box 200 Zeeland, Mich.

Write Today

HIGH QUALITY CHICKS

Delivered by Parcel Post Prepaid
100% Live Delivery Guaranteed

White, Brown and Buff Leghorns	25	50	100
Barred, White & Buff Rocks, Single and Rose Comb Reds & Anconas	\$3.50	\$6.50	\$12
White Wyandottes, Buff Or- pingtons & Black Minorcas	\$4.00	\$8.00	\$15
White Wyandottes, Buff Or- pingtons & Black Minorcas	\$4.50	\$8.50	\$16

All chicks inspected by poultry experts holding certificates from Ohio State University to inspect poultry.

MANKEL IDEAL HATCHERY

Box B, Upper Sandusky, O.

Good Chicks FREE CATALOG

In Business For 22 Years

**WHITE and BUFF LEGHORNS
AND HATCHING EGGS
BARRED ROCKS, R. I. REDS
MEADOWBROOK FARM
HENRY DE PREE & SONS
R. R. 1 HOLLAND, MICH.**



**Barron White
Leghorns
Anconas
White
Wyandottes**

Fancy Stock at Right Prices

White Leghorns (270-300 ancestry).....\$13.50 per 100
Sheppard Anconas (300-egg strain)..... 13.50 per 100
White Wyandottes (Evergreen strain)..... 18.00 per 100
Odds and ends, broilers..... 10.00 per 100
Shipped by parcel post. Safe arrival guaranteed.
RELIABLE POULTRY FARM AND HATCHERY,
Zeeland, Mich., R. 1, Box 47.



OUT IN FRONT AT CONTEST

The Royal White Leghorn pen at the International Egg Laying contest of 1925 led the entire contest for the first two weeks and after being second in the Leghorn class for ten weeks, again took the Leghorn leadership on Jan. 30, and still held it March 1st. High breeding counts. Write for our catalog.

S. P. Wiersma, R. 2, Zeeland, Mich.

There Must

be a reason why 75% of last year's customers have reordered this year. Our White Leghorn baby chicks are proven profit producers. Quality stock with the fancy prices. Catalog free—send for it today.

Karsten's Farm, Box 25, Zeeland, Mich.



CHICKS That Satisfy

Big, husky chicks, from heavy layers. S. C. Eng. White and Brown Leghorns, 12c; Anconas, 13c; Barred Rocks and R. I. Reds, 15c; Assorted chicks, 10c; Class A chicks only. No money down. Pay full amount ten days before chicks are shipped. 100% live delivery. Postage paid. Catalog free.
THE BOS HATCHERY, R. 2-M, Zeeland, Mich.



Exams and Embarrassments

An Experience in Taking the State Tests

Dear Uncle Frank:

I read what the "Blue Birds" had to say concerning the state exams. I thought they brought out some very good ideas, although I disagree with them where they say that the state examinations are unfair.

I go to a district school, have written on the seventh grade exam., and am preparing for the eighth, so I have had some experience.

The teachers of the rural schools are often young girls, who have never taught before. They have little or no idea of the requirements of the children, and if they were allowed to advance their pupils, they might let them slip through their grades, with the result that when they entered high school they would find themselves entirely unfitted for the work.

But instead of this poor method of promoting the children, some intelligent man selects a set of questions which any qualified seventh or eighth grader can answer, and if they fail it is a sign that they are not able to take the next grade.

As to being frightened, we must expect to find far greater obstacles in life than a little fear of a few children who are just as frightened as we are.

If you cousins get to feeling a little shaky at the state exam. the coming

spring, think how my friend and I must have felt last spring, and take heart, for we lived through it. Jocie and I were the last to arrive at the Stanwood school. We lingered in the entry for some time as we could not agree as to which of us should enter first. We did not agree until I gave Jocie a vigorous push. Then she entered rather abruptly. We picked out our desks, only to find that we didn't know how to put the seats down. We pulled, worked and fumbled, with our faces somewhat rosier than usual, and I am sure that we shook very visibly.

The boy from our school didn't offer to help; he only sat and grinned. The "fat kid" who sat behind us chewed his penstark in delight. I looked at Jocie and Jocie looked at me. She had promised to take the exam. only on one condition. "If ma's slippers came." (Jocie and her ma both wear "sixes EE" so one pair of slippers do for them both). I am sure, as we stood there unable to put the seats down, that Jocie wished that the Chicago mail order house didn't use the "twenty-four-hour service" plan.

At last we got the seats down, and in spite of the tragedy we both passed. I believe we are better eighth graders because we worked to pass the state exam.—"Captain Mollie."

OUR LETTER BOX

Dear Uncle Frank and Cousins:

Say, Uncle Frank, if you win a fountain pen once and your paper is good enough and you are lucky enough, would you win another one? I suggest that we have a sort of sunshine club. By this I mean for the children who know of some sick person, or lonesome, to send in their names to you, and then you could have them printed. Then the children could write letters and send good books to these people. Well, I must close and get to studying.—Your niece, Pauline Hammond, R. 2, Ypsilanti, Mich.

Yes, several boys and girls have won prizes several times. I will be glad to print the names of those sick, so we could have a letter or postal shower for them.

Dear Uncle Frank:

My ideas about smoking are these: I do not believe that it is right for a growing boy to smoke. Between the ages of twelve and twenty smoking does more harm than in all the remaining years. Therefore I think that boys should leave tobacco alone.

I saw five reels on the effect of tobacco. It showed forcibly the evil caused by it, especially if used before the age of twenty.

It also showed the effects on a rat in comparison with a rat which had not been given any. As a result in five days' time the rat having tobacco given to it died. I think this shows as clearly as anything else what tobacco does.

Also, I want to know if it is against the rules to typewrite answers to puzzles?—Your niece, Nora Severance, Grand Blanc, Mich.

Thanks for what you say about smoking. There are no rules against using typewriter in contests.

Dear Uncle Frank:

It has been a long while since I have written to the Merry Circle, but I thought I would see how hungry W. B. is. I also live in a land of flowers, the same as Miss D. R. Brown, but I do not like it as well as she seems to.

I go to a school named after our great President, Abraham Lincoln. We have a wonderful foot ball team. We were only beaten once and that was when the referee was unfair. We would have had the city championship if we had won.

else's letter.—Your California niece, Eula Newell, 570 M Ave., Los Angeles California.

I am glad to hear from my California niece. Everything nowhere is all honey and flowers, is it? Don't you think your last thought is a selfish one?

Dear Uncle Frank:

I do not altogether agree with Viva Bizard on the question if children are considered in public affairs. She seems to think that the children ought to stand back and let all the older folks do all the talking, but I don't. If we start in when we are young, talking of the important questions, when we are older we will be more prepared to answer the many questions that will come up before us in our daily life. Of course, if some older person is doing the talking, do not express your thoughts until called upon to do so. Let's hear from someone else.—Una Crandall, R. 1, Newaygo, Mich.

I agree that one cannot think of and discuss too young, the many problems of life and government.

Dear Uncle Frank:

I answered last week's puzzle, and this week's, too, but I did not get a prize because I was not a Merry Circle. I'd like to be one.

I just imagine that you are "Auntie Frank" instead of Uncle Frank. If you are Uncle Frank how is Auntie Frank?

How old are you Uncle Frank? I think you must be about ninety-one years old. Am I right?

I hope W. B. has lost his appetite, so I can live.—Your niece, S. Ellen Walters.

You don't have to be a Merry Circle to win a prize. In fact, you have to take part in a contest to become a Merry Circle. I am Uncle, all right. Auntie is O. K.

Happiness is always a by-product. Chase it, and it eludes you. Search for it, and it will escape the keenest tools.

M. C. Self-Denial Week

April 5-11 Set Aside for the Benefit of the Merry Circle Fund

ONE of our Merry Circle suggests we have a Self-Denial Week for the benefit of the Merry Circle Fund. I think this is a very good suggestion, especially as we have a real, worth-while object to work for.

I think, too, that this is a good time for self-denial; it being the Lenten season when one should be strong in unselfishness and in the consideration of others. So, let us make the week of April 5 to 11 a real worth-while Merry Circle Self-Denial Week.

I feel sure that we Merry Circle will get right into the spirit of this, as it offers us a real practical way of

demonstrating that we want to make others happy. We will want to deny ourselves something so that we can add to the happiness of those kiddies at the State Tuberculosis Sanitarium at Howell who are fighting tuberculosis.

I think that it would be fine if you would tell in what way you denied yourself, when you send your denial money in. I will be glad to print as many denial thoughts as I can.

Please send the results of your denial to the Merry Circle Fund, Michigan Farmer, Detroit, Michigan.—Uncle Frank.



When the weather permits, these boys get out in God's own sun for two hours or more, in order that its healing rays might give them the vigor to fight the dreaded T. B. germs. Your contribution will help bring these children greater happiness.

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We will send you one 10c packet of each kind of the following garden seeds for \$1.00.
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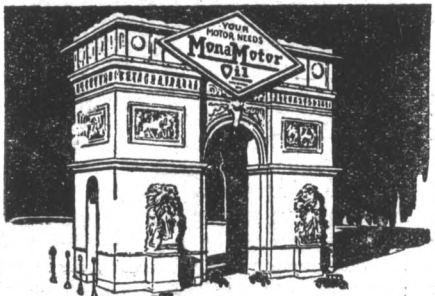
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Home Contest

ROSCOE BLOSS believes that this is a time when many young folks run away from home, and he believes that a good subject to discuss is, "What is the Matter with Home?" I agree with him, because I believe that in most cases where the child runs away, there is something about the home, something in the management of the child that made him want to get away, that made him have false longings.

Often the young folks know what is wrong but they hesitate to tell, and even if they did tell, it would do no good. But I make this subject the contest for this week, so that the young folks can give their views. I hope that the results of this contest will bring out discussions which will be valuable to parents and children alike.

This contest closes April 10. The usual ten prizes will be given and all boys and girls who send in good papers and are not Merry Circleers, will get M. C. buttons and cards. Please put M. C. after your name if you are a Merry Circleer. Send your papers to Uncle Frank, Michigan Farmer, Detroit, Michigan.

CROSS WORD WINNERS.

THE last cross word puzzle must have been a hard one for less than one-fourth of those who sent in replies had them right. Most of the failures were in one horizontal, five vertical, or eleven horizontal.

From those who had their answers correct and neat, the following were picked, without looking, as prize winners:

Fountain Pens.

Martha June Bass, R. 4, Boyne City, Hazel Railer, R. 1, Glennie, Mich.

Dictionaries.

Emil M. Sweet, R. 4, Quincy, Mich. Merlene Mains, R. 1, Olivet, Mich. Justin Langdon, Alanson, Mich.

Knives.

Gordon Christensen, R. 1, New Era, Josephine E. Pierce, R. 3, Grass Lake, Mich.

North West, R. 2, Dryden, Mich.



The Correct Solution.

Catherine McLean, R. 2, Grass Lake, Reginald Robinson, R. 4, Traverse City, Mich.

ABOUT TOBACCO.

Dear Uncle Frank:

I am one of the older Merry Circleers. I have fished and landed my prize several times. Now, although past the age limit and ineligible for the contests, I continue to read and enjoy the letters, both pro and con.

I should like to express an opinion. Past my house this morning on their way to school went three children. Children who were ill clad and ragged, (one boy about eight or nine, and two girls, one about fourteen, one about eleven). But why, you may ask, in this day of plenty and good times. Tobacco, in a way, is responsible. Drink, in the past, did its share. Think of it, three men, two boys and their father, using as much as \$4.00 worth of this deadly weed each week. Much as is spent on groceries, (nine in the family).

One-half this amount spent in a year on clothes to fit the cold weather would mean life instead of misery for these kiddies. Clad in warm weather garments at twenty-two degrees below

zero, while the tobacco trust flourishes and men roll in wealth and luxury—blood money, I call it.

I honestly believe that most of the misery and poverty could be ousted if tobacco could be made an outcast like old man whiskey.

I wish every Merry Circleer who reads might make a silent pledge to never taste the degrading weed in any form. The young nation now growing



Harold Coles Says This is Uncle Frank Saying "Good Morning" to Spring.

up, of which I am a part, will be the nation of tomorrow.

I myself have never tasted and God help me, never will—"The Black Knight."

LETTER BOX ANNEX.

Dear Uncle Frank:

A while ago I sent in an essay in the outdoor winter sport contest, and you gave me a membership in the Merry Circle for it. Thank you very much for it. How do you like this typewriting? My Dad and I own the typewriter in partnership. I am eleven years old now, and expect to be twelve some day. I'll close now.—Your nephew, Billy Dukes, Fennville, Mich.

It is real nice that you and Dad are in partnership. I wouldn't be surprised that you might be twelve some day.

Dear Uncle Frank:

A number of M. C. girls and boys have spoken of books they have read, during the year, but none of them have spoken of harm in books. So, I will say that many children read too many love stories and make themselves think of being married before they are out of the cradle.

Stories of wild life, robbing and killing often make them lead themselves into crime and disgrace. I could say much more if I had time, but I have not.

I hope my M. C. cousins will not think I do not like books, because I do. Maybe they don't believe me, but it is true.—I remain, Sunshine.

It is well to consider the evil effects of reading, as well as the good. What you read makes a difference.

Dear Uncle:

I thought Albert Alfredson's drawing was a dandy. Also Lee Roy MacKeller's subject on the favorite winter sport. I, for myself, like skiing the best of any winter sport, and second best comes skating and snowshoeing. To Verda Cole—so you also, are tall at thirteen? I am the same age and three inches taller than you. I would like to know the remedy "On How to Stop Growing" myself.

Well, as my letter is no doubt getting tiresome, I will close, hoping that this will be printed.—With love to the M. C.'s, Edna Kling, Cheboygan, Mich.

I guess that if nature wanted you to grow, you'll have to grow. It is an advantage to be tall in a crowd.

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BARRON STRAIN S. C. WHITE LEGHORNS

We furnish CHICKS and PULLETS from BLOOD TESTED 2-year-old Hens at prices you would pay for ordinary hatchery stock. We positively guarantee to please you. Our Hens have large lopped combs, plus SIZE and Egg Production. Booking orders for 10-week Pullets now, \$1.00 each in lots of 100. Send \$5.00 and we book your order. Place your order now. Catalog Free.

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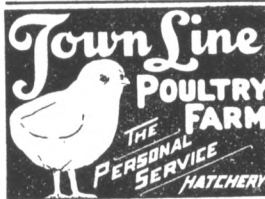
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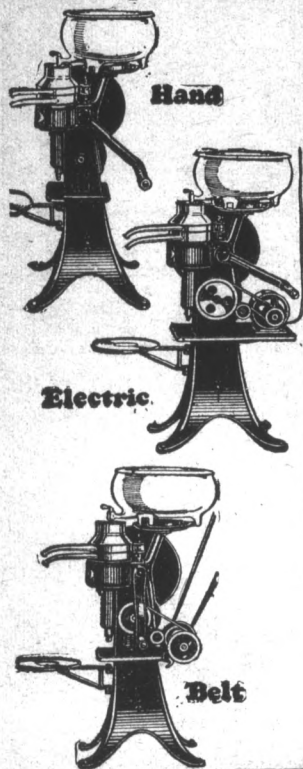
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Chicks from sturdy, healthy free range flocks. Carefully mated for high egg production. Blood tested for bacillary white diarrhea. Write for prices. Reference, Farmers' & Merchants' Bank.

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The Outlook for Dairying

Government Economists Issue Statement on the Situation

By J. T. Horner

FURTHER expansion in dairying in 1925 seems inadvisable. A recovery in prices of dairy products could hardly be expected should the number of milk cows be further increased." This is the opinion of economists of the department of agriculture, who further state, "In addition to the fact that domestic production appears adequate, the foreign dairy situation is such as to keep world market prices low and thus limit the height to which our butter prices can rise without bringing in foreign butter."

"The marked expansion of dairying in the principal butter sections shows

"European demand for dairy products can not be expected to improve in the near future as it did during the past year. The United Kingdom is now consuming more heavily than in pre-war years. Germany, too, is already fully back to pre-war volume of butter imports, the recovery of imports in that country having taken place within the past year, exerting an unusually strengthening influence upon world markets, and offsetting the effect of heavier world production. Russia is an increasing important source of supply for the world's markets. Southern Hemisphere countries, in-



These Holsteins Belonging to E. E. Sturgis Averaged 12,803 Pounds of Milk and 426.5 Pounds of Butter-fat.

by the increase of 4.2 per cent in the estimated number of milk cows in that area during 1924 as compared to a 2.2 per cent increase for the whole country, was largely caused by the unfavorable returns from other farm enterprises since the war. The slight decrease in the number of milk cows in the northeastern states and the upward trend in fluid milk consumption leaves producers in this section in somewhat better position than last year, though faced by higher grain costs this winter.

"Beginning the year 1924 with an increase in estimated number of milk cows on farms of but 1.4 per cent over January 1, 1923, production increased fully three per cent during 1924, due to the unusually favorable weather and pasture conditions during the flush season, resulting in the low butter prices which prevailed the second half of the year. With most of this increase in production diverted into butter, production of butter increased approximately two per cent over 1923. This heavy production was reflected in the accumulation of stocks in shortage which, on September 1 reached a peak of 158,440,000 pounds. Under the influence of these conditions butter prices did not follow the usual upward tendency during the late summer and early fall months.

"Low prices prevailing since the middle of 1924 have stimulated consumption and reduced production. The out-of-storage movement has been sufficiently heavy to indicate that the surplus will probably be disposed of by the end of the shortage season.

"Domestic consumption should continue heavy in 1925 as favorable industrial conditions throughout most of the year are expected and because of the tendency toward heavier per capita consumption of milk and dairy products stimulated by advertising and educational work.

cluding New Zealand, Australia, and Argentina, where dairy production is now exceeding all previous records, are to be regarded as important influences in the world's butter markets during the coming year and increasing in the future.

"While 1924 may not have been as profitable a year for dairying generally as was 1923, those who have recently gone into the dairy business would do well not to abandon it because of a single year of higher returns from other farm enterprises. Weeding out the least efficient cows and feeding more carefully would help to meet the present situation and still leave the farmers of the country in good condition to meet the steady growth in the demand for dairy products which each year is showing."

The unfavorable butter market has caused Michigan dairymen to look to the whole milk markets in the cities. These markets cannot consume all the milk produced in those regions within marketing distance. In view of existing conditions it does not seem advisable to expand dairy production within the market milk area. Also, when considering the conditions of supply there seems to be little hope that higher whole milk prices will prevail any way soon. The whole milk price cannot be too much above the manufacturing market price. The best possible course for dairymen seems to be that of more efficient handling of herds and the elimination of poor cows.

"Preach individuals first and pedigrees second."

"None but high-producing cows are profitable, and the use of pure-bred sires is the shortest road."

The farmer who makes money by using fertilizers is the one who studies his soil conditions in relation to crop adaptations and responses to plant food.

MARION WILKINSON AGAIN WINS HIGH HONORS.

IN the South Van Buren Cow Testing Association for the month of February, out of a total of 253 cows, 225 were tested, the other twenty-eight being dry. The average milk production was 636 pounds each and the average butter-fat production was 27.9 pounds each.

Twenty-seven cows produced more than forty pounds of butter-fat each, and five cows produced over fifty pounds of butter-fat each, twenty-one cows produced over 1,000 pounds of milk each.

The high cow, a pure-bred Holstein, was owned by Marion Wilkinson, of Dowagiac. She had a production of 1,742 pounds of milk and a butter-fat production of 57.5 pounds.

Marion Wilkinson, for the second time won high herd with his six pure-bred Holsteins with an average production of 1,232 pounds of milk each, and an average butter-fat production of 41.93 each.

Members are taking advantage of the courses of lectures given by the faculty of the Michigan Agricultural College, on farm topics, over WKAR, the college broadcasting station.—Raymond Hyman, Tester.

WASHTENAW COUNTY COW SUPPLIES BANQUET.

FIFTY-EIGHT banqueters had a pint of milk apiece made for them in sixteen hours by Houwtje Maid Korn-dyke Segis No. 548695. The occasion was the annual meeting of the Washtenaw County Holstein Association held March 16 at Saline. And there was enough milk left in the kitchen to feed all the cats in town! For Houwtje Maid has averaged ninety-seven pounds or pints of 3.95 per cent milk a day since freshening Jan. 27.

Her performance is not exactly a surprise to her owner, William Rundel, of Saline, for in cow testing association work from December 8, 1923, to November 11, 1924, she gave 21,788 pounds of milk, testing 3.8 per cent, containing therefore 842.4 pounds of fat, the equivalent of 1,010.88 pounds of butter. She has milked twice a day except for the first three months.

Small wonder the program of the

evening was full of pep when the participants were full of "health—vitality—nutrition!"

President William Austin presided over the meeting. Speeches were interspersed with vocal music by the "Men's Quartet" of Saline, piano renditions by Miss Janis Austin, songs by Harold Miller. Of especial attraction was a duet by Miss Austin and her brother George, piano and cornet.

The speakers of the evening included H. S. Osler, county agent; Al Watt, manager of the Washtenaw Fair; State Holstein Association Secretary J. G. Hays, and Carlos Beckington, of Ypsilanti.

Young Beckington gave a very interesting account of his trip to the 1924 International Dairy Show. His trip was financed by the Washtenaw County Holstein Association as a reward for high class work in Boys' Calf Club.

Hays sketched briefly present-day doings in state Holstein circles. He ended his harangue by a true type demonstration, using his famous (?) knock-down portable pastelboard model "Ornery." Some cow.

The business session resulted in the re-election of President William Austin, Vice-President Birg, and Secretary Walter Spalding. Frank Geiger was chosen treasurer, and for new directors W. L. Rundel and R. B. Watrous were selected. The officers were directed to lay out a plan of activity for the next year—calf club work and showing at fair being two projects for special consideration.

Movies from the extension service of the National Holstein Association, a two reeler entitled, "Jonathan Barr's Conversion," capped an evening filled with pleasure.

MAKING PROGRESS WITH BUTTER.

OF all the farmers' cooperatives reporting to the department of agriculture, the Minnesota Cooperative Creamery Association of St. Paul is making the greatest progress in improving the quality of its output. A total of 32,000,000 pounds of butter was sold by the association during 1924, of which 18,000,000 pounds went to new markets. Over fifty per cent of the butter was sold under the trademark established by the association for sweet cream butter scoring ninety-three per cent or better.

February Honor Roll in Dairydom

Ten Best Cows in Each Age Class as Shown by the Records of Michigan Cow Testing Associations

Ten High Cows—Three-year-class.

Cow Testing Association and Owner.	Breed.	Date Fresh.	Lbs. Milk.	Test.	Lbs. B.F.
Livingston No. 1, M. J. McPherson	PB H	12- -24	1676	4.9	85.7
Ottawa-Coopersville, Sam Rymer	PB J	12- 8-24	1128	6.9	77.7z
Genesee No. 4, Ernest L. Hill	PB H	12- 2-24	1572	4.6	72.3
Calhoun, Lakewood	PB H	10-23-24	1883	3.8	71.7zz
Calhoun, Lakewood	PB H	12- 6-24	2544	2.9	71.2zz
Berrien, Plym Farm	PB H	1- 3-25	1718	4.1	70.4z
Oceana, Sam Odell	PB J	12- 7-24	1218	5.7	69.44z
Calhoun, Lakewood	PB H	11-10-24	2055	3.2	65.8zz
Ionia-Lake Odessa, Lakeside	PB H	11-27-24	1875	3.5	65.0zz
Genesee No. 7, W. E. Robb	PB H	11-10-24	1794	3.6	64.5zz

Ten High Cows—Four-year-class.

Ottawa-Coopersville, Sam Rymer	PB J	12- 2-24	1553	6.5	100.9
Kalamazoo No. 1, Roy Buckham	PB H	12-24-24	1700	4.5	79.3zx
Calhoun, Lakewood	PB H	11-15-24	2313	3.4	78.6zz
Macomb No. 2, John Sangfield	Gr D	12-15-24	1333	6.32	77.58
Genesee No. 1, McCandlish Bros.	J	12-30-24	1218	6.2	75.5
Shiawassee, Fred Martin	PB H		1683	4.4	74.1
Macosta-Remus, Alex. Paulsen	PB J	12- -24	973	7.5	73.0
Jackson-Parma, W. H. Warner	PB J	11-17-24	1516	4.8	72.8
Livingston No. 3, A. H. Donaldson	J		1242	5.4	67.5
Kalamazoo No. 1, T. L. Rea	Gr G	12-22-24	1224	5.4	66.1

Ten High Cows—Under Five-year-class.

Livingston No. 1, M. J. McPherson	PB H	12- -24	2285	4.9	113.
Genesee No. 8, J. Calvert	PB H	11-30-24	2253	4.4	99.1z
Ottawa-Coopersville, Sam Rymer	PB J	9- 1-24	1147	8.0	91.7
Ionia-Belding, Michigan Reformatory	PB H	11-26-24	2499	3.5	87.5z
Huron-Ubly, Ernest Hagen	Gr H	12-18-24	1417	5.9	83.7
Marquette-Alger, J. B. Duetsch	G	12-29-24	1435	5.8	83.0zz
Sanilac No. 2, Glen Clarkson	Gr D		1792	4.6	82.4
Sanilac No. 2, Ed. Coupar	PB J		1336	6.1	81.5
Allegan North, Jes. Norgaard	Gr G	12-20-24	1720	5.05	80.9
Ontonagon, Alex. Kitzman	Gr G	11- -24	1385	5.7	79.2

Ten High Cows—Over Five-year-class.

Calhoun, Lakewood	PB H	12- 9-24	2381	4.6	108.7zz
Ottawa-Coopersville, County Infirmary	PB H	11-12-24	2542	4.1	106.2
Eaton West, C. H. Fligg	PB H	12-14-24	2074	5.0	103.7zzx
Ottawa-Coopersville, Sam Rymer	PB J	11-12-24	1522	6.8	103.5
Macomb No. 2, Clifford Hopkins	PB H	12-20-24	2129	4.56	97.2
Ionia-Lake Odessa, Tony McCaul	PB H	12- 4-24	1599	5.7	91.2
Allegan West, Taylor & Jager	Gr J	12- 6-24	2217	4.1	91.1
Arenac, Peter Koelsch	Gr H	12-17-24	2483	3.6	89.4z
Washtenaw-Ann Arbor, C. S. Baur	PB H		1277	6.95	88.8
Calhoun, Lakewood	PB H	10-10-24	2663	3.3	88.7zz

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Ingham-Lansing, H. D. Box & Son	PB H		2728	3.	81.8z
Calhoun, Lakewood	PB H	10-10-24	2663	3.3	88.7zz
Ionia-Belding, Michigan Reformatory	PB H	12-20-24	2035	3.	79.1zz
Ionia-Belding, Michigan Reformatory	PB H	11-26-24	2070	2.5	64.3zz
Ottawa-Coopersville, County Infirmary	PB H	11-12-24	2542	4.1	106.2
Ionia-Belding, Michigan Reformatory	PB H	11-26-24	2499	3.5	87.5z
Arenac, Peter Koelsch	Gr H	12-17-24	2483	3.6	89.4z
Genesee No. 8, Tompkins & Powers	PB H	12-11-24	2458	2.7	66.4z
Kent-South, W. R. Harper & Son	PB H	11-18-24	2430	3.1	75.06z
Livingston No. 2, J. B. Buckley	PB H	12-15-24	2387	3.9	69.2z

z denotes three times milked; zz denotes four times milked; zzz was milked twenty-nine days.



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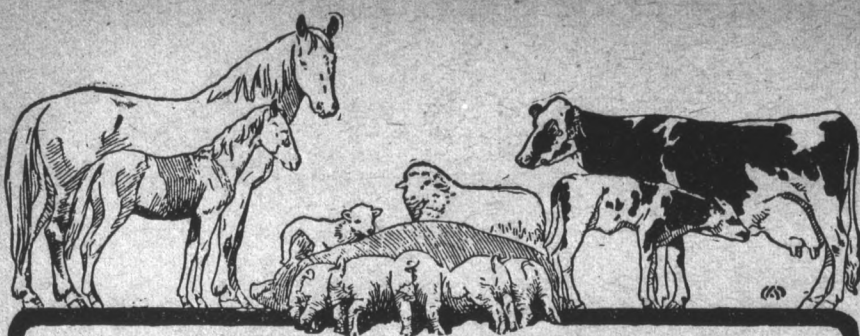
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STOCK FARMING

Keeping the Curl in the Tail

By A. Rice

HAVE you ever seen a healthy, thrifty pig that didn't have a curly tail? Or one with a straight and drooping tail which seemed to be doing just as well as it might?

The straight tail is accompanied by other indications equally as marked, such as: a long snout, a humped back and rough coat of hair, all indicating a lack of something in the ration which has caused the pig to lose its baby fat.

Now, in order to realize the most profit from the raising and feeding of hogs, all really successful producers have come to know, that the fat, which is every sucking pig's right, is a val-

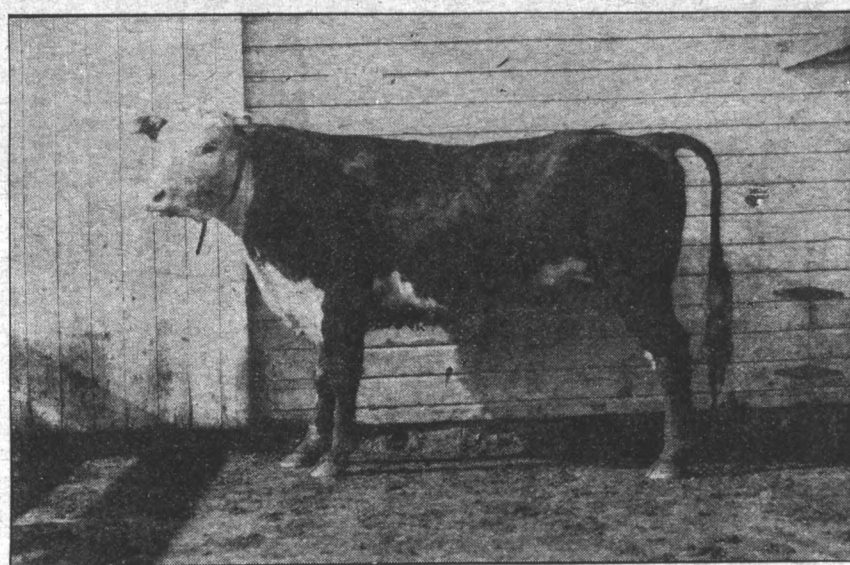
was supplied in the form of tankage for eighty cents.

And the tankage will keep the curl in the tail.

FEED PRICES MAY BE LOWER.

THE feed market has been declining. It is probable that the price trend will be downward. The decrease in the number of cattle and hogs has slackened the feed demand. Likewise, the low butter prices have had a tendency to cause dairymen to not feed so heavily as they would had the market been better.

The farmer should plan to produce



Usually the Cost of Gains on Steers is Lowest When the Proportion of Silage in the Ration is Largest.

uable asset in the ultimate development of the hog, and should be conserved accordingly.

Let this baby fat once get off a pig and that individual pig will cost ever so much more at marketable size than his brother piggy on which the baby fat has been retained. Conserve this baby fat; keep the original curl in the tail. Nothing will do this as cheaply as an adequate amount of protein in the feed. Skim-milk, unless you have a better-paying outlet, is by far the cheapest and best of feeds; but if you are selling whole milk, as we are, you can get along very nicely and cheaply with tankage.

We are selling our whole milk on the butter-fat basis, getting so much for the butter-fat and so much for the skim-milk content. The skim-milk brings us an average approximating fifty-five cents per hundred. With tankage costing \$2.90 per hundred, we think that the skim-milk required for each pig would, if sold, buy its equivalent in tankage much more cheaply. In fact, the skim-milk if sold at the price for which we are selling, would easily, if expended for tankage, feed several such pigs.

A job-lot of September pigs that we bought last fall we sold at the age of five months, weighing an average of 175 pounds. These had not a drop of milk from weaning time. We fed eighteen of them 500 pounds of tankage costing \$2.90 per hundred, or a total of \$14.50, or eighty cents per pig.

Now, let's figure on the skim-milk proposition just a little. Allowing eleven pounds of the milk per day per pig we have a total, per each pig, for 150 days, of 1,650 pounds. Figuring this at fifty-five cents per hundred we have \$9.07 invested in a ration that

as much of his own feed as possible. In some instances where conditions are right, feed production for next year's market might be advisable. However, the outlook at present is for a lower feed market.—J. T. Horner.

TEMPORARY FENCES.

LAST year I secured a few steel posts, and a roll of barbed wire. By bracing an ordinary line post with an old rail and a stope, I was able to use this for an end post on one side of a field and on the other side I anchored to a tree. With steel posts, set about every thirty feet, and the two barbed wires attached and located about two feet and three feet above ground, I found I had a quickly made fence.

As it only takes one moment to drive a steel post (not tubular), and the strands of barb wire can be stretched with the tractor, it is no great trouble to build same.

I also found that by letting barbs down to ground along on top of hill or elevation, it was unnecessary to have a gate. This wire can easily be rolled on a barrel when ready to move, and posts can be pulled by hand during a wet time. One can run this kind of a fence diagonally in order to hitch to a tree or some other object.—A. E. E.

OUTLOOK FOR SHEEP AND WOOL.

THE recent relative high prices for sheep and wool have caused some expansion in the number of sheep on farms. This may continue to the point of over-expansion. However, the general opinion seems to be that the prices will remain at a satisfactory level during the present year.

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

Registered Guernsey Rose breeding. A. R. records. Walnut Hill Farm, Milford, Michigan.

Reg. Guernsey Bull T. B. Tested, five years old. Four daughters with records. Price \$150. HILDRETH & LEE, Bailey, Mich.

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FOR SALE Registered Guernsey cows and heifers. F. W. RUEHS, R. 2, Caledonia, Mich.

FOR SALE REGISTERED HOLSTEIN FRIESIAN COWS from 2 to 7 years old. Some fresh, others to freshen soon. Will sell one or more to suit purchaser. Best of breeding. Prices are right. HENRY S. ROHLFS, Akron, Mich.

FITTING FARM HORSES FOR THE SPRING WORK.

FARM horses that have been worked little during the winter months are, as a rule, unfit for heavy spring work. Well-wintered horses are generally in good flesh, which flesh, however, is soft, and hard work soon shrinks it away.

I have always found it a good practice during the winter season, and especially as spring approaches, to begin working, as much as possible, the horses I need to do my spring work. There is always some work about the farm to be done, such as hauling manure, wood, moving grain to market and going to mill, that tends to give the horses the right kind of exercise and helps to strengthen and keep their muscles active and firm. I plan to change the horses around in the teams frequently so that each horse gets its share of work and keeps seasoned at the collar.

Farm horses not regularly employed during the winter, are usually high-spirited and, when put to work in the spring, frequently become overworked and injure their shoulders. If sore shoulders result the first few days, their usefulness the remaining part of the season is materially impaired. Horses properly fitted for spring work will invariably start in quietly without fretting or worrying.

I do not believe in increasing the grain ration a week or ten days before starting my teams at the spring work. I find it a much better practice to start work first and gradually increase the grain ration as they become accustomed to the work.—Leo C. Reynolds.

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. Initial only are published. When a reply by mail is requested the service becomes private practice and \$1 must be enclosed.

Bloody Milk.—My cow gives bloody milk from one quarter of her bag. A. W., Romeo, Mich.—Dissolve one ounce of sugar of lead in one quart of cold water and apply to bruised quarter after milking. Ascertain the cause and remove it, then she will recover, but a little blood in milk does no harm.

Barrenness.—My cow comes in heat every three weeks, but fails to get with calf. E. T., Sterling, Mich.—Dissolve a quarter pound of bicarbonate of soda in six quarts of clean tepid water, with fountain syringe, flush the vagina daily.

Swollen Quarter.—We have a heifer which has been fresh three months. One quarter of udder is much larger than its mate, but both quarters seem to be all right, except the most milk comes from the large quarter. S. B., Grant, Mich.—Leave her alone.

Partial Loss of Power.—Teat Polypus.—Have sow ten months old which eats good, but when down can hardly get up alone. We have a cow with small hard bunch in her teat. T. H. B., Manton, Mich.—Give sow ten drops of fluid extract of nux vomica, and twenty grains of acetate of potash in feed twice a day. Feed her some roots. Keep her bowels open. Does she have enough exercise?

Piles.—I have two pigs which will weigh about 75 pounds each. They have protrusion of the bowel, but not more than two inches. Had I better kill them? F. G., Rosebush, Mich.—Constipation is a common exciting cause of piles; keep their bowels open, give each pig a teaspoonful of bicarbonate of soda in feed or milk twice a day and it will help the pigs. Apply boric acid to raw portion of tumor twice a day.

Foreign Body in Mouth.—We have a ten-year-old cow that has some trouble in swallowing food. Most of the feed she chews drops out of mouth, sometimes we pick up half a bushel of sour food. What is the cause of this trouble? E. M. B., Byron Center, Mich.—If you will examine her mouth you will perhaps find a piece of wire or sliver of wood lodged in back part of mouth which prevents her swallowing food. Her tongue or throat may be diseased. Wash out mouth with salt water twice a day.

Disposal Sale of Registered Holstein-Friesian Cattle

J. E. McElwain of Hastings, Michigan

will sell without reservation his entire Herd of 34 head of Registered Holsteins at the J. E. McElwain Farm located within the City of Hastings on

Wednesday, April 8, at 1:00 P. M.

This Herd represents 12 years of careful breeding and consists of daughters, granddaughters, and great granddaughters of Sir Korndyke Veeman Hengerveld, known as the "Old Rising Bull," Michigan's Greatest Sire of Thirty-Pound Cows.

This Herd is headed by Sir Korndyke Veeman Champion, an outstanding Show Bull of exceptional breeding. He is a 31-lb. grandson of Sir Korndyke Veeman Hengerveld. His five nearest dams all have A. R. O. records above 30 lbs., averaging better than 32 lbs. butter and 600 lbs. milk. His daughters are extra fine individuals and the first to freshen average high in percentage of butterfat.

The cows and heifers in this Herd are of uniform breeding and conformation and possess some very good A. R. O. and Cow Testing Ass'n records. A 4-year-old is now leading the Ass'n in her class.

This Herd is Tuberculin Tested and has never had a reactor or case of abortion. This Herd is in good condition and should be attractive to buyers. Sale catalogue will be out April first. If interested write J. E. McElwain, Hastings, Mich.

Col. C. M. Hess, Auctioneer, Akron, Ohio.

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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.

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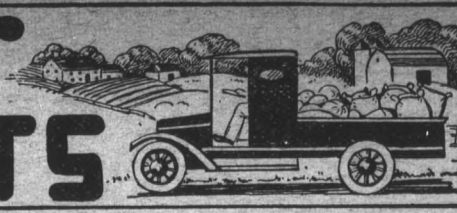
FOR SALE One Registered Percheron Stallion, four years old. Weight 1,800 lbs., well broke and nice to handle. Price right. E. A. ROHLFS, Akron, Mich. Box 6, R. F. D. No. 3.

Strawberry Roan Belgian Stallion for sale, 4 years old. Weight 1,800 lbs. HERMAN KOHLER, R. 2, Clinton, Mich.

\$300 buys the best coming two-year-old Percheron stallion in Michigan. Color brown, ton type. H. B. PETERS, Elsie, Mich.



THE LATEST MARKET REPORTS



GRAIN QUOTATIONS

Tuesday, March 31.

Wheat.

Detroit.—No. 1 red \$1.63; No. 2 red \$1.62; No. 2 white \$1.62; No. 2 mixed \$1.62.

Chicago.—May \$1.46@1.46½; July \$1.37½@1.37¾; September \$1.29½.

Toledo.—Wheat \$1.63@1.64.

Corn.

Detroit.—No. 3 yellow \$1.13; No. 4 yellow \$1.08.

Chicago.—May \$1.04½@1.04¾; July \$1.08½; September \$1.09½@1.09¾.

Oats.

Detroit.—No. 2 white at 53c; No. 3 white 52c.

Chicago.—May 41¾c; July 43¾@43¾c; September 44c.

Rye.

Detroit.—No. 2, \$1.20.

Chicago.—May at \$1.19½@1.20; July \$1.09½; September 99¾c.

Toledo.—\$1@1.05.

Beans.

Detroit.—Immediate and prompt shipment \$5.60@5.65 per cwt.

Chicago.—Navy, choice \$6.25; red kidneys \$10@10.50.

New York.—Choice pea at \$6.35@6.50; red kidneys \$10@10.25.

Barley.

Detroit.—Malting 97c; feeding 90c.

Buckwheat.

Detroit.—\$2@2.05.

Seeds.

Detroit.—Prime red clover cash at \$16.60; alsike \$14.25; timothy \$2.90.

Hay.

Detroit.—No. 1 timothy \$16@16.50; standard and light mixed \$15.50@16; No. 2 timothy at \$14@15; No. 1 clover and No. 1 clover mixed \$13@14; wheat and oat straw \$10.50@11; rye straw \$11.50@12.

Feeds.

Detroit.—Bran at \$32@33; standard middlings at \$33; fine middlings \$38; cracked corn \$56; coarse cornmeal at \$44; chop \$33.

Apples.

Chicago prices on apples: Northern Spies \$7@8 bbl; Baldwins \$6.50@7; Jonathans at \$9.50 bbl; Kings at \$7.50@8; Greenings \$7.50@8; Wagener \$5.25@5.50 bbl; Grimes at \$5.50@5.75; Starks \$6.50@7; Ben Davis at \$5.50@5.75.

WHEAT

Wheat prices averaged higher earlier in the last week but slumped sharply again at the close. Speculative liquidation appears to be about over, foreign markets seem to be past the worst of their recent indigestion, the domestic cash situation is more robust and a crop scare is developing. Producers have not been eager to sell on the recent decline so that primary receipts in the last month have been the smallest at this season in several years. At the same time, shipments from primary markets have been heavier than usual, resulting in rapid reduction in the visible supply. Wheat is still pouring into European ports at a rapid rate. Argentine clearances have fallen off sharply so that more interest may be shown in offerings from North America. Crop damage reports are coming from Kansas and adjacent states where rain is needed and where winter killing has been extensive. Some comprehensive private reports indicate that the condition of the crop on emerging from winter has seldom been as poor as it is this year.

RYE

Recent declines have made possible a good deal of export business in rye. Russia has been a big buyer. Germany has also re-entered our market. Clearances now run much heavier than in December and January, and it is expected that still larger sales will be made soon. In the past, April and May have frequently been months of large rye exports.

CORN

The speculative house cleaning seen in other grains ten days ago was finally experienced in corn. The market is lower than a week ago. Cash demand from actual consumers has increased to a limited extent. Primary receipts of corn in the last ten days have been the lightest at this season in many years. The present visible supply is large, otherwise the small receipts would have immediate influence.

OATS

Primary receipts of oats have been quite small recently, while shipments

from primaries have increased and the visible supply is showing fair decreases from week to week. Distributing demand has improved at the lower level of prices. From the high point of the winter, oats prices have declined about one-third, and, since they were already cheap compared with other grains, the trend in the next two or three months is likely to be up rather than down.

BEANS

The bean market passed another quiet week with prices unchanged. C. H. P. whites are still quoted at \$5.80@5.85 per 100 pounds, f. o. b. Michigan shipping points, with fancy screened at \$5.55@5.60. Wholesale grocers and canners are buying sparingly, but owners of beans are still firm in their belief in higher prices later on. The course of the market probably depends on whether the volume of buying increases after the first of the month. Employment conditions are favorable, but the weather is a little too mild to stimulate demand.

SEEDS

The seed trade has been very irregular. Sales are stimulated by the mild weather but fall off at any return of frost. Red clover sales are curtailed because of high prices so that the reduced supply may be ample for the demand. The planting season is at hand, however, and a broader demand for seeds and a stronger market during the next month are anticipated.

FEEDS

Feed demand shows no improvement and prices are inclined to work lower. Offerings of wheat feeds are liberal from both mills and jobbers. Canadian and Buffalo mills are offering bran and middlings in the east at \$2@3 lower than western markets. The mild weather is reducing spring requirements in the many consuming districts.

HAY

The hay market is still depressed by large receipts and sluggish demand. Timothy prices were steady, but al-

falfa and prairie hay declined. Excessive stocks of inferior hay are still being pressed on the market, but top grades are scarce. Pastures in the south are steadily improving so that sales of alfalfa to that section are falling off.

POULTRY AND EGGS

Egg prices held generally steady throughout the past week. Country markets are higher in most sections although collections are reported to be increasing. Receipts at the four leading markets last week were the smallest in a month. Consumption is broad and there is an active demand for eggs for storage. Accumulations in the large markets since March 1 have been larger than in the entire month last year. The price at which buying for storage will be carried on has been well established so that the market probably will continue firm at the present level.

Chicago.—Eggs, miscellaneous 28c; dirties 27½c; checks 27c; fresh firsts 29¾c; ordinary firsts 28c. Live poultry, hens 28c; springers 30c; roosters 18c; ducks 30c; geese 16c; turkeys 28c pound.

Detroit.—Eggs, fresh candled and graded 29@29½c. Live poultry, heavy springers 31c; light springers 25@26c; heavy hens 30c; light hens 25@26c; roosters 18c; geese 16@18c; ducks 33@34c; turkeys 35c.

BUTTER

Butter markets were unsettled last week, and prices declined rather sharply. Receipts were not large, but recent high prices have curtailed consumption and dealers are conservative. The arrival of 300,000 pounds of fine quality Canadian butter was a further unsettling influence. Statistically, the butter market remains in a strong position. Fresh production is only moderate. The reduction of storage butter stocks is so rapid that holdings by April 1 may be close to ten million pounds, or only slightly above the five-year average on that date. Danish butter is still too high to offer any competition to domestic butter at the prevailing prices. London markets, the natural outlet for colonial butter,

also are above a parity with our prices. The decline on domestic butter was largely sentimental and some improvement is due as confidence is restored. Prices on 92-score creamery: Chicago 45½c; New York 45½c; Boston 46c; Philadelphia 46½c. Detroit 43@47c for fresh creamery in tubs.

WOOL

The wool market continues slow, but manufacturers are taking limited amounts daily and resistance is being shown to any further declines in price. Nevertheless, sales are being made occasionally at slightly lower figures. Delaine wool of the better class is selling at about 59@61c in the grease at Boston, although some dealers are holding for higher prices. The sale of a fairly large amount of territory wool to manufacturers is reported also, with fine combing quoted at \$1.45@1.50, scoured basis, and half-blood at \$1.30@1.35. With the exception of South America, foreign markets show a slightly firmer tone because of the buying power revealed at the London sale which closed last week.

POTATOES

The potato markets were dull last week with prices slightly lower at both shipping points and in the distributing markets. Shipments of old potatoes gained nearly 400 cars over the preceding week, although part of these probably were seed stock. The movement of new potatoes from the south is increasing steadily, but it still represents only a small part of the total. Northern round whites, U. S. No. 1, are quoted at 90c@1 per 100 pounds in the Chicago carlot market.

HORSES

Farm chunks are still in demand by buyers from the east. Horses weighing 1,300 to 1,700 pounds are finding that outlet at a range of \$100@225, with the bulk of the heavier sorts at \$175@200. Lighter kinds are selling down to \$90. Choice heavy drafters weighing around 1,900 pounds are scarce and are selling in pairs at \$500@575. Plain big horses are hard to sell.

GRAND RAPIDS

This market has turned weak on apples and the sky high prices which many expected this spring when they stored apples are not materializing. Old vegetables also were easier. Live stock was steady, poultry firm, and butter-fat slightly lower. Prices early this week were: Potatoes 40@50c a bu; carrots, parsnips, rutabagas 60@75c bu; cabbage, white 50@65c bu; red, 75c@1 bu; beets 75c@1 a bu; green onions 20c dozen; dry onions \$1@1.25 bu; apples, Spies, fancy \$3@3.25 bu; A, \$2.50; B, \$1.65@2; Golden Russets \$1.25@1.50 bu; maple syrup \$2.25@2.50 gallon, mostly \$2.25; maple sugar 30@35c lb; wheat \$1.50 bu; rye \$1.05 bu; beans \$5.25 per cwt;

DETROIT CITY MARKET

The markets were too well supplied with produce for the demand which prevailed, but third grade stock moved slowly. Cabbage, carrots, parsnips and other roots were slow sellers. A few bushels of beet tops found easy sale. Live poultry prices advanced a little under stronger demand, while the egg market barely remained steady.

Apples \$1@4 bu; beets, round 50@65c bu; long 65c@1 bu; cabbage 50@60c bu; carrots 50@65c bu; horseradish, fancy \$5@5.50 bu; No. 1, \$4@4.50 bu; No. 2, \$2.50@3.50 bu; dry onions No. 1, \$1.25@1.50 bu; green onions 60c dozen bunches; root parsley 60@65c bu; curly parsley 50c per dozen bunches; parsnips 75c@1 bu; potatoes, No. 1, 60@65c bu; No. 2, 40@50c bu; rutabagas 50@60c bu; honey \$1.15@1.25 per 5-lb. pail; butter 50@60c; squash \$2@2.50 bu; beet tops \$1 bu; eggs, wholesale 32@33c; retail 35@40c; hens, wholesale 30@33c; retail 34@35c; springers, wholesale 30@31c; retail 33@35c; veal 19c; dressed poultry, hens 35@40c; springers 35@40c.

COMING LIVE STOCK SALES.

Guernseys.

April 7—George F. Crawford, Holton, Mich.

Holsteins.

April 8—J. E. McElwain, Hastings, Mich.

April 8-9—Western Wisconsin Holstein Breeders' Sales Assn., West Salem, Wisconsin.

Live Stock Market Service

Tuesday, March 31.

CHICAGO

Hogs.

Receipts 13,000. Market is uneven, steady to 10c lower than Monday's low price. Mostly 25@40c off from best prices; lightweights are uneven; light lights and slaughter pigs firm; bulk 170 to 325-lb. weight \$12.50@13; 140 to 150-lb. average largely \$12.25@12.75; bulk packing sows \$12@12.50; strong weight slaughter pigs at \$11.50@12.25.

Cattle.

Receipts 10,000. Fed steers and yearlings slower, generally steady, quality considered; best early bulk fed steers and yearlings \$8.25@10.75; other killing classes except calves are about steady; big weights average around 1,600 lbs. at \$11.50; yearlings \$11.75; bulk vealers to packers \$10@10.60; to outsiders mostly up to \$12.50.

Sheep and Lambs.

Receipts 14,000. Good fat lambs fully steady; some change on weighty kind; good handy weights at \$15.50@15.85; best held higher; good 91 to 96-lb. lambs \$14@14.50; weighty kind at \$13.50; no clipped sold; good to choice 73-lb. California springers \$16.50; fat sheep uneven; killing lambs unevenly slow, good 74-lb. kind \$15.10.

DETROIT

Cattle.

Receipts 498. Market opening slow at Monday's close.

Good to choice yearlings
dry-fed \$ 9.75@10.50
Best heavy steers, dry-fed
Handyweight butchers .. 8.75@ 9.50
Mixed steers and heifers .. 8.00@ 9.00
Handy light butchers 6.50@ 7.75
Light butchers 6.00@ 6.75
Best cows 5.00@ 5.75
Butcher cows 5.50@ 6.50
Canners 4.50@ 5.25
Choice bulls 2.00@ 3.65
Heavy bologna bulls 2.25@ 3.00
Stock bulls 5.00@ 6.50
Feeders 4.50@ 5.25
Feeder bulls 4.00@ 5.00
Feeder sows 6.00@ 7.50

Stockers 5.25@ 7.00
Milkers \$45.00@80.00

Veal Calves.

Receipts 680. Market 50c higher.
Best \$14.50@15.00
Others 5.00@14.00

Sheep and Lambs.

Receipts 475. Market 25c lower on lambs, sheep steady.
Best lambs \$ 16.00
Fair to good sheep 14.50@15.50
Light to common 9.75@11.50
Clipped 13.00
Yearlings 13.00@13.50
Fair to good sheep 8.00@ 9.50
Culls and common 4.00@ 6.00
Bulk lambs 13.00@13.25

Hogs.

Receipts 1,887. Market fairly dull.
Mixed hogs, heavy y'krks. \$13.20@13.60
Pigs 12.25
Little yorkers 12.75
Yorkers 13.20
Roughs 11.75
Stags 7.00@ 7.50

BUFFALO

Hogs.

Receipts 4,560. Hogs closing slow.
Grade 160 lbs. up \$13.65@13.75; heavy sold at \$14.10@14.25; medium \$14.35; light \$14.25@14.50; light lights \$13@13.50; pigs \$12@13; packing sows and roughs \$11.75@12.

Cattle.

Receipts 200. The market is slow. Steers from 1,100 pounds up at \$8.50@11.30; steers 1,100 lbs. down \$6@10; load of bulk yearlings up to \$11; hieifers \$5.50@6; cows at \$2.60@6; bulls \$4@6.25; butchers are steady.

Sheep and Lambs.

Receipts 1,800. Tops selling \$16.25; culls \$16.50 down; yearlings \$13.50@14; aged wethers \$11@11.50; ewes at \$9@10; slipped lambs \$13.50@13.75; ewes \$9@10.

Calves.

Receipts 450. Tops at \$14.50@15.25; culls \$11.50 down.

LEGISLATURE FROWNS ON CORN-BORER BILL.

THERE seems to be a real emergency in the matter of appropriation for the control of the European Corn Borer. The House Committee on Ways and Means has denied a hearing to officials of the department of agriculture and representative farmers, and reprinted out the bill with the appropriation cut from \$25,000 a year to \$12,000 a year. This appears like false economy in view of the fact that corn is our most important farm crop, at least in the southern part of the state. If farmers all get busy at once it should be possible to get this figure back to the original request, which was certainly a very conservative figure.

COUNTY CROP REPORTS.

Alcona Co., March 18.—The sugar beet companies are contracting for acreage in this locality at the present time. It now appears that about the usual acreage of potatoes, corn, and beans, will be planted. It will be necessary to ship in a good deal of seed corn as little of the supplies on hand will grow. Hay is now being marketed at \$7.50@10 per ton. The general outlook for the farmer shows improvement. The weather during February was very seasonable, but many changes have occurred during March. Eggs now bring 21c; butter-fat 42c; potatoes 35c; oats 50c; veal 10@11c.—G. W. G.

Sanilac Co., March 24.—A normal acreage of sugar beets has been contracted in this district. Potatoes, corn, canning peas, and beans will average more than normal. Fall wheat and meadows came through the winter in fine shape. Not much building and repairing being done, owing to the high prices of labor and materials. It is almost impossible to sell hay, the demand being lifeless. Farm products are selling as follows: Beans \$5.20; barley \$1.65; wheat \$1.55; rye \$1; oats 39c; eggs 25c; cream 48c; milk \$2.40 per cwt. Many farmers are buying stockers for pasture feeding.—C. F. B.

Shiawassee Co., March 27.—Fine spring weather prevails in this section. Frost is practically all out of ground. Many farmers have started to plow for oats. Auction sales are numerous, and farm tools, milk cows, hogs, and poultry bring high prices as a rule. Horses are slow of sale, especially the light ones, drafters bring fair prices, but are not in large demand, as many farmers are purchasing tractors. Hay

of good quality sells from \$5@7 per ton, owing to the heavy crop of last year. This year's meadows give good promise at present.—D. H. M.

300 STRAWBERRY PLANTS \$2.00 POST 150 Senator Dunlap, 150 Wardfields, 24 PAID HAMPTON & SON, R. 5, Bangor, Mich.

Dressed Veal and Hogs

We are an exclusive meat house and are equipped to handle to your advantage veal and hog shipments.

Guaranteeing best results and prompt returns.

Ship direct to

M. A. Nicholson & Co.

WHOLESALE MEATS

2460 Riopelle, Detroit, Michigan

SAVES YOU FROM 15 TO 50c ON EVERY SHADE YOU BUY

Window Shades Direct from Factory. We are an old established manufacturer of all kinds of window shades, selling direct from our large factory to you. That means a big saving. Orders Filled in 24 Hours. Every shade is carefully packed and inspected in our large mail order department and sent by parcel post, prepaid to your door. Write today for our money saving descriptive catalogue; it tells how to select and measure shades and other valuable information. Buying direct, there's a big saving.

R. W. DURHAM CO. 148 N. Alabama St. Indianapolis, Ind.

Send No Money

30 Days FREE Trial

No deposits—No obligation to buy! You try the famous imported Harp Separator for entirely at my risk. If not thoroughly satisfied, return at my expense. The Standard in Europe For More Than 22 Years. You get the closest skimming, easiest turning, quickest to clean separator ever built. Has replaced hundreds of thousands of machines all over Europe. Quality at bargain prices! From \$33.50 up. Easy Monthly Payments. Write today for free folder. W. C. MULLER, Pres. THE HARP SEPARATOR CO. Dept. 410 115 S. Dearborn St. Chicago

THE HARP

30 MONTHS TO PAY



SPECIAL SALE. Standard Bee Hives, One Story, per pack of five hives. 8 frame, wood covers \$9.50; 10 frame, wood covers \$10.35; 10 frame, metal covers \$12.75. Send for special price list of all bee supplies.

A. G. WOODMAN CO., DEPT. M. F. GRAND RAPIDS, MICH.

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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.

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13.....	1.04	3.12	29.....	2.32	6.96
14.....	1.12	3.36	30.....	2.40	7.20
15.....	1.20	3.60	31.....	2.48	7.44
16.....	1.28	3.84	32.....	2.56	7.68
17.....	1.36	4.08	33.....	2.64	7.92
18.....	1.44	4.32	34.....	2.72	8.16
19.....	1.52	4.56	35.....	2.80	8.40
20.....	1.60	4.80	36.....	2.88	8.64
21.....	1.68	5.04	37.....	2.96	8.88
22.....	1.76	5.28	38.....	3.04	9.12
23.....	1.84	5.52	39.....	3.12	9.36
24.....	1.92	5.76	40.....	3.20	9.60
25.....	2.00	6.00	41.....	3.28	9.84

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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.

REAL ESTATE

CALIFORNIA FARMERS make more money on small farms in San Joaquin Valley, California, where you can work outdoors all the year. Splendid opportunities for men of moderate means. Twenty and forty acre farms produce alfalfa abundantly. Dairying, hogs and poultry make good returns; staple varieties of fruits yield dependable profits; combination of these means a well-balanced farm with good income throughout the year. Winterless California offers much to the man looking for a country where he can get the most out of life. Climate delightful, long growing seasons; wonderful roads; excellent schools. Cooperative marketing associations afford profitable outlets for all produce. A small one-family farm, cutting out high labor costs, insures success. No winter handicaps. San Joaquin Valley illustrated folder mailed free on request. C. L. Seagraves, General Colonization Agent, Santa Fe Ry., 912 Railway Exchange, Chicago, Ill.

FOR SALE—80 Acres, black loam soil, with buildings, stock and tools. Owner, Emory Borosh, Boon, Wexford Co., Mich.

WANTED FARM to work on shares, 40 to 80 acres. George Lang, 4509 Cooper Ave., Detroit, Mich.

80-ACRE EQUIPPED FARM—Close River; Only \$1,500. Wood and timber to more than pay for all; convenient town and markets; productive fields, springs, water, wire fences, fruit; pleasantly located house, roomy barn. Owner engaged elsewhere reduces to \$1,200 and good pr. horses, cow, hens, dog, implements, hay, corn, stovewood, etc., thrown in. Easy terms. Details pg 166. Big new Spring Catalog farm bargains throughout 24 states. Free. Strout Farm Agency, 205-BC Kresge Bldg., Detroit, Mich.

230 ACRES & MODERN HOME—Only \$4,600; 15 Cattle, Crops, Horses, poultry, machinery included; on improved road near markets; good 11-room house, bath, furnace; large barns, hog, poultry houses, garage; 700 bu. fruit crop, level fields, brook and spring water. 50 acres wood, timber; Owner called away reduces to \$4,000, only \$1,200 needed. Details pg. 23 big new Spring Catalog. Free. Strout Farm Agency, 205-BC Kresge Bldg., Detroit, Mich.

20-ACRE FARM NEAR DETROIT—With Stock and Equipment. Money-making truck soil, tilled, all tillable; best markets and advantages; variety choice fruit; good 6-room house and outbuildings. If taken now horses, cow, implements, hay, grain, potatoes thrown in; only \$2,500 for all. E. O. Loveland, Milan, Michigan.

FOR SALE—437 acres of unimproved land in Cheboygan County, Michigan, suitable for pasture land with a small stream running through it. D. & M. Railway runs through one corner of said land and about 6 miles from the Village of Aloha. R. L. Hubbard & Company, Caseville, Michigan.

I WILL PAY CASH FOR MICHIGAN LAND, any sized tract, improved or unimproved; prefer lake or river frontage or on good stream. Send full details, plat, legal description and lowest price in first letter. H. J. Dewey, 417 Valentine Building, Toledo, Ohio.

FARMS NEAR DETROIT—Milan and Ypsilanti. Write for list, stating kind wanted. E. W. Bordine, R. 6, Milan, Michigan.

RARE BARGAINS—two farms, one 100, one 80 acres, both good ones. Deal with the owner. For particulars write Walter Schworm, R. 1, Nessen City, Mich.

SPLENDID MICHIGAN APPLE ORCHARD—44 Acres near Muskegon and Whitehall. 800 Bearing Trees. Farm equipped, team and tools. Fine lake house. 2 Miles to Chicago Boat Dock. Has fine stream for trout. Make a lovely country home. Porter & Wyman, Muskegon, Mich.

LAND OPPORTUNITY—1000 acres meadow land in Alger Co., Mich., close to station; 1280 acres Schoolcraft Co., Mich., 800 ready for small grain; down payment waived to party having having or farm equipment. Jesse Greenman, Pioneer Bldg., St. Paul, Minn.

WIDOW HAS TWO FARMS FOR SALE. Write Mrs. John Lucier, Stephenson, Mich.

MISCELLANEOUS

FOR SALE—A 125 barrel flour mill in southern Michigan. Modern machinery, good condition, established trade. Appraised at \$30,000. Must close estate at once. Price \$10,000, cash or terms. F. H. Robinson, 110 South Dearborn Street, Chicago, Ill.

OLD MONEY WANTED. Have you an odd or old coin or bill? It may be worth several dollars. Get posted. Send to Coin Circular. May mean much profit to you. Send now. Numismatic Bank, Dept. M, Fort Worth, Texas.

GLADIOLUS BULBS—Write for descriptive price list. George Hunter, Dowagiac, Mich.

WANTED—Standing timber of all kinds. Good prices. Charles L. Berth, Pleasant Ridge, Detroit, Mich.

TOBACCO

HOMESPUN TOBACCO, Chewing 5 lbs., \$1.50; Ten \$2.50. Smoking, 5 lbs., \$1.25; Ten, \$2.00. Pay when received. Pipe and recipe free. Farmers Union, Paducah, Ky.

HOMESPUN TOBACCO—Chewing five pounds, \$1.50; ten, \$2.50. Smoking, five pounds, \$1.25; ten, \$2.00. Pipe free. Pay when received. Satisfaction guaranteed. Kentucky Farmer's Association, Paducah, Ky.

HOMESPUN TOBACCO—Chewing, 5 lbs., \$1.50; 10 \$2.50. Smoking, 5, \$1.25; 10, \$2. Mild, 10, \$1.50. Pay when received. F. Gupton, Bardwell, Ky.

SEEDS AND NURSERY STOCK

FROST PROOF Cabbage Plants and Tomato Plants. Varieties: Early Jersey and Charleston Wakefield. Copenhagen Market, Flat Dutch and Succession. Tomato: Greater Baltimore, Earls and Livingston. Prices: Parcel Post Paid, 500, \$1.50; 1,000, \$2.50. Express collect, \$1.25, 1,000. We ship the size of plant you wish. Satisfaction guaranteed. Tifton Potato Company, Inc., Tifton, Ga.

FROSTPROOF CABBAGE, Bermuda Onions and Tomatoes. Strong, hardy plants. Leading varieties. Prompt shipment. Satisfaction guaranteed. 100, 40c; 500, \$1.25; 1,000, \$2.00; 5,000 \$8.50. Pepper, 100, 50c; 1,000, \$2.50. All postpaid. East Texas Plant Co., Pampa, Texas.

DODGES FAMOUS Rio Grande Valley Bermuda Onions will produce the best and Earliest Mature Bermuda Onions. Large open field grown plants, 500, \$1.25; 1,000, \$2. Prepaid. Satisfaction guaranteed. Dodge Plant Farms, Raymondville, Texas.

FREE—NEW RED RASPBERRY—Tip Grower. Very hardy. Send for Literature. Strawberries \$2.00 per 1,000. All Small Fruit Plants. Dept. H, Hellenga's Nursery, Three Oaks, Mich.

SOY BEANS—Certified Manchou and Midwest \$2.50; uncultivated Manchou, high germination \$2.25. Prices F. O. B. in new bags. Henderson Bros., R. 1, Atlanta, Ind.

CERTIFIED Wolverine Oats. Certified Robust Beans. Postal card brings particulars. A. B. Cook, Owosso, Mich.

ASPARAGUS—Why not plant the largest, tenderest, most profitable, "The Washington"? 100 roots \$1.25; 1000 \$8.00. Prepaid. Click Seed Farm, Lancaster, Pa.

SWEET CLOVER SEED, both white and yellow. Inoculating Bacteria for bushel, any legume, 60c, postpaid. E. E. Basil, Latty, Ohio.

STRAWBERRIES, RASPBERRIES, ASPARAGUS—12 choice plants \$1.25 postpaid. Free catalogue of Profitable Garden Luxuries. C. D. Thayer, Three Rivers, Michigan.

CERTIFIED MANCHOU SOYBEANS—new seed, 96% germination, \$2.50 per bu. Charles Martin, Otterbein, Indiana.

SEED CORN—Murdock Yellow Dent, 1923 crop, high germination. Three Dollars per bushel. Irving O. Leaty, Coloma, Mich.

ASSORTED COLORS GLADIOLA bulbs; 55 large or 120 flowering size, \$1.00, postpaid. Martha Osmond, Fostoria, Mich.

FOR SALE—Registered and Certified Worthy seed oats. Write Paul C. Clement, Britton, Michigan.

REGISTERED WOLVERINE OATS—Michigan's Best. C. D. Finkbeiner, Clinton, Mich.

CERTIFIED WORTHY OATS—Big Yield, stiff straw. Ernest Ruehs, Caledonia, Mich.

HAY

GET FULL market value for your hay. Ship to Albert Miller & Co., 192 No. Clark St., Chicago, Ill. Market reports furnished free.

PET STOCK

RABBITS—Flemish Giant, pedigreed from Stahls Gold Certificate, \$5.00 each. Not pedigreed, 3 mo. old, \$2.00 each. Leonard Norton, Three Rivers, Mich.

CROSS-BRED PUPS—German Shepherd and Collie, \$10. Homestead Kennels, Saranac, Mich.

POULTRY

HATCHING EGGS, White Rocks, Winners Egg Laying Contest, Michigan State Fair, 1924. \$3.00, \$5.00 per fifteen. S. C. Buff Orpingtons, winners at Michigan's largest shows, \$3, \$5.00 per fifteen. Send for circular. Walnut Hill Farm, Milford, Mich.

FAT HENS AND FRESH EGGS WANTED—Highest price paid for all kinds of poultry, especially for real fat hens. Ship at once, we need it for Easter. East Coast Poultry Co., 700 Alfred St., Detroit, Mich.

BARRED ROCKS—Parks strain foundation stock. Hatching eggs \$2.00 per 15; \$5.00 per 50; \$10 per 100. Prepaid by parcel post. R. G. Kirby, R. 1, East Lansing, Mich.

EGGS—Single Comb Buff Leghorns and Buff Rocks. Pure-bred farm range, \$1.00 for 15; \$6.00 for 100; prepaid. Mrs. H. H. Walter, Powhatan Point, Ohio.

ROSE COMB Brown Leghorn pullets, 1 yr. old, also S. C. White Leghorn hens, 2 yr. old, \$1.35 each. R. B. Hutting, Carson City, Mich.

BUFF ORPINGTON, bacillary white diarrhea blood tested, excellent layers. Hatching eggs, \$1.50 per 15. Mrs. Dell Goodwin, Reading, Mich.

TURKEN—Half turkey, half chicken, large hardy layers, hatching eggs. Turken Home, Fayette, Iowa, Box 853.

SINGLE COMB REDS—Hatching eggs from trap-nest-ed, winter layers. 15 eggs, \$1.50; 100, \$7.00; prepaid. Willocroft Farm, Bangor, Michigan.

SNOWY WHITE ROCKS, high quality. Eggs prepaid, \$1.40, 15; \$3.75, 50; \$7.00, 100. Mrs. Earl Dehnhoff, Vanburen, Ohio.

WHITE WYANDOTTES—Exclusively, eggs \$5.00 per 100 prepaid. Raymond Eash, Shipshewana, Indiana.

S. C. REDS—heavy laying strain. Eggs 6c, postpaid. Chicks 15c. Myron Mason, Cloverdale, Mich.

SILVER LACED WYANDOTTES—Twenty choice cockerels. Circular free. C. W. Browning, Portland, Mich.

BIG TYPE Toulouse geese eggs, 50c each. Buff Rock eggs, \$2 per 15. Baldwin & Nowlin, R. 4, Laingsburg, Mich.

HATCHING EGGS—Jersey Black Giants exclusively, \$8 per 100. Frank Haynes, Middleton, Mich.

MAMMOTH Imperial White Pekin duck eggs, \$1.50 per 11. Chas. Stutz, Saranac, Mich.

FOR GUINEAS—One Dollar each, write M. B. Noble, Saline, Mich.

PURE-BRED Embden geese eggs, high producers. Glen Rykert, Williamston, Mich.

EGGS from Ringlet Barred Rocks \$5.00 per 100, \$2.00 per setting. Robert Martin, Woodland, Mich.

BABY CHICKS

CHICKS—Barred and White Rock; R. I. Reds, \$16 per 100; White Leghorns, \$12 per 100, delivered. 100% live delivery of good strong chicks guaranteed. Chicks are Hatched in Wishbone Mammoth Incubators of 14,400-egg capacity. Terms: \$5.00 on each 100 chicks with order, balance one week before delivery is to be made, or at Hatcher's where called for. Hatcher's four miles east of Mt. Morris on Mt. Morris road one mile north and one mile east. 10 years hatching chicks. Reference, Bank of Mt. Morris. Order from this ad and save time. Meadow Brook Hatchery, R. 1, Mt. Morris, Mich. Phone.

BABY CHICKS—Silver L. and White Wyandottes, Barred Rocks, R. I. Reds, Anconas, White and Brown Leghorns from culled and strong laying strains. Sold from day-old to eight weeks old. Fifteenth year. Write Shepard Poultry Farm, Litchfield, Mich.

OAKLAND HILLS QUALITY CHICKS—Strong, vigorous, true to breed, profitable. English Leghorns, Rhode Rocks, White Wyandottes, etc. Safe delivery guaranteed. Circular free. Oakland Hills Poultry Farm, Farmington, Mich.

BABY CHICKS—Pedigree Sired Eng. W. Leg. Chix, delivered 100% alive at your door at our low prices of \$12.50 per 100; \$60 per 500; \$110 per 1000. Circular free. Model Poultry Farm, R. 4, Zeeland, Mich.

WHY NOT TRY KARSTEN'S and get the best in egg bred White Leghorns? 75% of last year's customers reordered this year. Prices low. Catalog free. Karsten's Farm, Box Y, Zeeland, Mich.

BABY CHICKS from flocks blood-tested for Bacillary White Diarrhea. All flocks tested—second test on Rocks and Reds. All popular varieties. Ask for Catalogue. Pierce Hatchery, Jerome, Michigan.

QUALITY CHICKS from Quality Stock. Barred Rocks, White Wyandottes and S. C. White Leghorns from prize winning stock at reasonable prices. A Vandervan, 823 Fulton Ave., Grand Haven, Mich.

SUPERIOR CHICKS—9c up. 12 varieties. Heavy layers. Delivery guaranteed. Postpaid. Bank references. Catalogue Free. Superior Hatchery, Box 556, Windsor, Mo.

BABY CHICKS—From selected heavy layers. White Leghorns \$13 and \$15; Barred Rocks and Reds \$16 Hundred. Circular Free. Martin's Poultry Farm, Box F, Westphalia, Mich.

BABY CHICKS—Bred for heavy egg production. Rhode Island Reds, Barred Plymouth Rocks and White Leghorns for \$13.00 per hundred and up. Carleton Hatchery, Box 117, Carleton, Mich.

FULL BLOOD Hollywood White Leghorn Chicks at \$12.00 Per Hundred. Rhode Island Reds \$15.00 Per Hundred. Live Delivery Guaranteed. H. Koons, Homer, Mich.

BABY CHICKS—Barred Rocks, White Leghorns culled for laying, trappened, blood tested for White Diarrhea. Farmrange Chick Hatchery, Charlotte, Michigan.

BABY CHICKS—Leghorns, Rocks, Reds, Wyandottes. Selected Stock 100% live guaranteed. Write for Price List. P. W. Stone Hatchery, Fenton, Mich.

CHICKS—English Strain White Leghorns, M. A. O. Barred Rocks and Black Minorcas. Circular. Hillside Hatchery, R. 3, Holland, Mich.

BABY CHICKS AND EGGS—Superior Ringlet Barred Rocks, Rose Comb Rhode Island Reds, White Leghorns. Wyndham's Ideal Hatchery, Tiffin, Ohio. Circular.

CHICKS from Trappened English White Leghorns. Heavy winter laying stock. Big profit-makers. Circular free. Cherrywood Poultry Farm, Holland, Mich.

RICHARDSON'S ROCKY RIDGE pure Parks strain Barred Rock Baby Chicks, \$16 per 100. Hanover, Mich.

S. C. BUFF LEGHORN CHICKS—First hatch March 3. Circular. Willard Webster, Bath, Mich.

READ Shady Lawn Poultry Farm Ad on Page 483.

TURKEYS

TURKEY EGGS—Mammoth Bronze, Bourbon Red, Narragansett and White Holland. You should place your order early. Write Walter Bros., Powhatan Point, Ohio.

NOW BOOKING ORDERS for Bourbon Red turkey eggs for hatching. Arthur Gale, R. 3, Montague, Mich.

AGENTS WANTED

ADDITIONAL SALESMEN WANTED for unoccupied territories. Our proposition is an unusual opportunity for high grade men, offering greater earning power and steady work. Must have car. Full information on request. Minneapolis Woolen Mills Co., Inc., 612 First Ave. North, Minneapolis, Minn.

FREE TRIP TO CALIFORNIA. Get three good responsible farmers to go with you to inspect California state approved lands. Opportunity for one good man in each community to join largest land selling organization in U. S. Write for details. Herman Janss, 1195 Transportation Bldg., Chicago, Ill.

TEACHER or College student for summer months, handling school guide in sales field. Healthy, enjoyable, refined position; \$273 for three months; \$156 for two months. Write Dept. "A," Park Avenue Bldg., Detroit, Mich.

AGENTS—our new Household Cleaning Device washes and dries windows, sweeps, cleans walls, scrubs, mops. Costs less than brooms. Over half profit. Write Harper Brush Works, 173 3rd St., Fairfield, Iowa.

HELP WANTED

WANTED—man and wife, without children, for farm. Wife to work at owner's residence. Good house-keeper. Man to work in garden, etc. Be able to milk. State age. Bazley Stock Farm, Ypsilanti, Mich.

Old Leaky Roofs



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With

Saveall LIQUID ASBESTOS ROOFING

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At Last!—An amazing new way—a far better way, and a much cheaper and easier way has been discovered to stop the leaks and make your old roofs as good as new with SAVEALL—the wonderful new Liquid Asbestos Roofing.

No longer do you need to pay a lot of money for new roofs if your old roofs leak and are in bad condition. You don't even have to go to the expense of removing the old roof. It makes no difference what kind of roofs you have—what materials they are made of—or what condition they are in—SAVEALL Liquid Asbestos ROOFING will stop the leaks, stop the rot, rust and decay, stop the repair bills and make your old worn-out roofs as good as new. We prove it 4 Months Before You Pay. We prove it or—NO PAY. We guarantee it 10 years after you PAY.

4 Months Free Trial

Just to prove to you right on your own roofs—right before your own eyes that SAVEALL Liquid Asbestos ROOFING will SAVE YOUR ROOFS—fill up every crack and crevice, stop the leaks, cover all nail holes, pores, seams and rust spots—seal them up tight and do it for a fraction of what a new roof would cost—we will ship you all the SAVEALL you want—one barrel or ten—on 4 Months' FREE Trial without a penny of pay in advance.

Simply tell us on the coupon below how much SAVEALL you can use. We will ship you all you want without a cent of money down. You test it, try it for 4 full months at our risk and if it does not do all we claim,—you say so and we will cancel the charge.

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Saveall Roofing comes in a thick Liquid form ready to spread. The only tool you need to apply it is the roofing brush which we send FREE with every order. Saveall is composed of genuine rock fibre asbestos combined with preservative oils and waterproofing gums, and is made in our own factory under our own special process. One stroke of the brush puts on a new seamless, indestructible, leak-proof covering over the old roof surface—a roof that is not affected by heat or cold and will give you satisfactory service for 10 years or more.

Saveall Roofing has been sold on this liberal "4 Months' Trial Plan" for years. Never sold by Jobber, Retailers or Salesmen, but put up in Steel Barrels and Steel Half Barrels and sold only direct from our factory to you at lowest factory prices. None but the finest quality of materials are used in Saveall. No better grade can be obtained anywhere at any price. That's why we guarantee it for ten years. Furnished in Black only. One gallon will cover an average of about seventy square feet of roof surface.



MAKES OLD SHINGLE ROOFS WATERTIGHT AND AS GOOD AS NEW



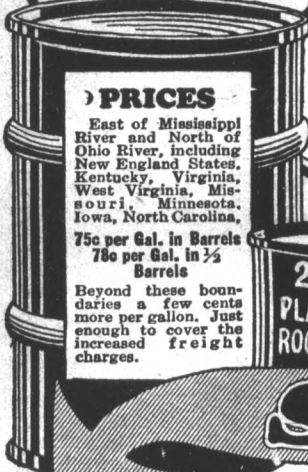
STOPS RUST AND LEAKS IN SHEET METAL ROOFING WITH ONE COATING



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FREE

With every order sent in from this advertisement we will also include **absolutely FREE** a Roofer's Brush for applying Saveall roofing and a 25 lb. drum of our Plastikite Patching Cement for patching leaks around chimneys, flashings, gutters, cornices, etc. Send coupon at once and get this FREE Roofer's Brush and Patching Cement.



PRICES

East of Mississippi River and North of Ohio River, including New England States, Kentucky, Virginia, West Virginia, Missouri, Minnesota, Iowa, North Carolina, 75c per Gal. in Barrels 76c per Gal. in 1/2 Barrels

Beyond these boundaries a few cents more per gallon. Just enough to cover the increased freight charges.

25 Lbs. PLASTIKITE ROOF CEMENT

SEND NO MONEY

One gallon of SAVEALL covers an average of about 70 sq. feet of roof surface.

Just The Coupon

We Stand the Freight!

Now is the time to make your old roof as good as new with SAVEALL on our "4 MONTHS' FREE TRIAL OFFER!"

Send no money. Just fill out coupon for as much SAVEALL as you want. We will ship it to you at once. You simply pay the small freight charges on it when it arrives, and at the end of the 4 months' period, you pay for it if it fulfills all our claims, deducting the freight charges you have paid. If not satisfactory, we agree to cancel the charge. Don't let this chance slip by. You also get a roofing brush and 25 lbs. of Plastikite Patching Cement FREE if you act quick. Fill out the coupon and mail it TODAY. Let SAVEALL save your roofs and save you money.



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We also make a complete line of Paints, Varnishes and Enamels. We can save you money on all kinds of paint. Every gallon guaranteed and we give you **60 DAYS TO PAY** WRITE FOR FREE BOOK A Post Card will do.

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Gentlemen: Please ship me the following as per special offer:

- Steel Barrels Saveall Roofing (65 Gal.)
- Steel Half Barrels Saveall Roofing (40 Gal.)

It is understood you are to include FREE one Roofer's Brush and 25 lb. Drum Plastikite Patching Cement. I agree to use Saveall in accordance with directions and will pay in FOUR MONTHS, if it does what you claim. Otherwise I will report to you promptly and there will be no charge for the amount I have used.

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