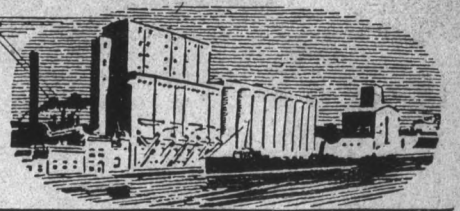


The Michigan BUSINESS FARMER



An Independent
Farm Magazine Owned and
Edited in Michigan



VOL. X, No. 17

SATURDAY, APRIL 14, 1923

NEW TERMS: TWO YEARS \$1
60c PER YEAR—5 YRS. \$2



Who Whistled?

Turn to page three and read the article, "State Income Tax Promises Property Tax Relief"—It is of vital interest to you and you can assist in securing the passage of this law if you act at once.

Also read, "Saving Mother Those Extra Steps."

Current Agricultural News

PROGRAM OF POTATO GROWERS EXCHANGE

THE program for the Michigan Potato Growers Exchange for improving the status of the potato industry in Michigan in 1923.

WHEREAS, the potato industry of Michigan during the past season has severely suffered from the bad effects of 1. Country-wide over-production. 2. Car Shortage. 3. Field Freezing. 4. Inferior Quality. 5. Rough handling of green stock. 6. Insufficient grading and sorting. 7. Improper conditions in storage. 8. "Bearing" the market by unscrupulous buyers and brokers within the state. 9. Over specialization in potato production in certain localities, and

WHEREAS, it is our belief and conclusion that these conditions are generally amenable to correction, and that the bad effects of all can be greatly modified by a campaign of education and preparation, therefore

BE IT RESOLVED, that we, the Directors and Officials of the Michigan Potato Growers' Exchange go on record in favor of and hereby pledge our support to the following program for improving the status of the potato growing industry in the state of Michigan.

Program

1. The promotion of an educational campaign for more careful sorting and grading and the feeding of the surplus in case the Government Crop Report for August 1st shows a possible crop of 380,000,000 bushels or more.

2. To insist that the Railroads of

the State, in their capacity as Common Carriers, take steps immediately to live up to their franchise obligations and proceed to equip themselves for handling in an orderly and expeditious manner the tonnage offered for shipment. If an unbiased presentation of the seriousness of our case does not meet with adequate response on the part of the Railroads, then we advocate the leasing of a reasonable number of refrigerator cars by the Exchange. As further precautions toward the end of meeting the bad effects of car shortage we advocate more early shipping in box cars and a careful study by Exchange members of the system of pooling all potatoes by seasons as a means of equalizing the prices to growers which result from enforced inequality of shipping.

3. Earlier planting of the late crop, to secure maturer stock; and earlier digging to avoid possible danger of field freezing.

4. The improvement of the quality of our commercial crop by the more general use of certified or high quality seed; seed treatment; early planting; control of leaf diseases by high pressure spraying.

5. The use of machine diggers where possible; more careful handling in field and warehouse; and the elimination of unduly severe sizing machinery in potato warehouses.

6. In case of a normal or over-production we advocate very careful sorting and grading in order to put an attractive and superior quality pack on the market, also the use of trade-marked sacks for each grade adopted by us in order to realize

both financially as well as an increased favorable reputation on the prestige established by our quality offerings.

7. Inspection of all potato warehouses and the installation of proper heating and ventilating facilities to prevent abnormal heating, sweating, molding and discoloration.

8. More general pooling of potatoes through the cooperative marketing associations; also an educational campaign to unveil the "bearish" practices of unscrupulous buyers and brokers within the state.

9. The system of farming, in some localities, which limits the amount of live stock and legume hays, in favor of specialization in potato growing, we believe to be fundamentally wrong. We advocate enough dairy and other stock to take care of all the cull potatoes during years of normal production and consume the surplus during years of over-production.

BET GROWERS HOLD ANNUAL MEET AT SAGINAW

THE annual meeting of the Michigan Sugar Beet Growers Association was held in Saginaw, March 28th, at the auditorium. Being a state meeting it was not very well attended by the actual growers of beets. Many were there that used to grow beets but on account of labor conditions did not know as they would grow any. General satisfaction of the 50-50 contract principal was expressed. It was conceded that the factories and growers would have to co-operate in the most sincere manner or the sugar beet industry in Michigan would become a thing of the past. The speakers were A. B. Cook, Master of the State Grange; Hale Tennant, of the State

Farm Bureau; Harold F. Pitterian, president of the Owosso Sugar Co.; Tom C. Price, president Michigan Sugar Beet Growers Ass'n, and C. E. Ackerman, manager Michigan Sugar Beet Growers Ass'n. Practically all the old board of directors were re-elected with a few additions, including A. B. Cook and others.—C. E. Ackerman.

TO LOWER WIRE RATES BETWEEN TWO PENINSULAS

REDUCED toll and long distance telephone rates between cities of the upper peninsula and points in the lower peninsula of Michigan will be put into effect April 21, according to a schedule filed last week with the Public Utilities Commission by the Michigan State Telephone Company.

Judge Franz C. Kuhn, president of the telephone company, states that this move is in line with the company's policy of doing everything possible to bring closer together the distant points of the state.

NINE STATES NOW HAVE FILLED MILK LAWS

SIX additional states have enacted filled milk laws to prohibit the manufacture and sale of filled milk within the state boundaries, in the past two months, according to the report of the Extension Service of The Holstein-Friesian Association of America. These states are Iowa, Kansas, Missouri, South Dakota, Massachusetts and Vermont. In Vermont, the bill was passed over the veto of the Governor. Three additional states—Wisconsin, New York and Ohio formerly had filled milk laws.

Filled milk bills are now pending in Illinois, Minnesota, Michigan, Connecticut, New Hampshire, Pennsylvania and Wisconsin. In only one state, Indiana, has filled milk legislation been defeated.

False advertising bills designed to prohibit the use of the dairy terms, dairy cow pictures and the name of dairy cattle breeds the advertising of butter substitutes have been past by the states of Missouri, South Dakota, Ohio, Vermont, New Jersey, Massachusetts and Delaware in the past two months. States already having false advertising laws are Iowa, Michigan and Pennsylvania, now making a total of eleven. A false advertising bill introduced into Kansas legislature is the only defeat reported.

False advertising bills are pending in Illinois, Minnesota, Wisconsin, New York and New Hampshire.

THE MILK POOL IN AUSTRALIA BETTERS SITUATION.

AUSTRALIA has made considerable progress in the solution of the problems involved in satisfying both the producers and the consumers of milk as to prices, according to M. R. Harrison, publisher of The Producers' Review, of Toowoomba, Queensland. Mr. Harrison is making a study of agricultural economics in the United States. A few days ago, he discussed with representatives of the World's Dairy Congress Association the probability of getting a large delegation from Australia to attend the Congress. This is to be held from October 2 to 10 opening at Washington and including sessions at Syracuse, N. Y., with a one-day stop at Philadelphia en route. Australia has officially accepted President Harding's invitation to send representatives to the meeting.

The elimination of overhead charges, or "spread", has been one of the most important means employed by the Australians in improving the milk situation. This has been made possible through the formation of a dairy "pool" in Queensland, according to Mr. Harrison, Australia has had much experience with the pools in the sphere of agriculture. Some of these pools, notably the wheat pools, have been formed by act of the Government. The dairy pool is voluntary. The economics effected by its managers have enabled them to pay the farmers more than they had been receiving for milk and consumers are required to pay no more than formerly and some are getting a reduction.

Your Telephone Manager Is Responsible to You for Good Telephone Service

Your Telephone Exchange Manager is *directly* responsible to you for your telephone service.

We urge you particularly to meet and know him.

Sometimes, there may be little, irritating difficulties with the service that the ordinary trouble report does not seem to quite clear up. In such cases the Telephone Manager will make it a matter of personal attention to see that service is restored to your satisfaction.

But don't wait until then to make his acquaintance. Drop into your telephone office, some day, and meet him. If he is not in, capable representatives will gladly attend your telephone needs. Or leave your card, and the Manager himself will call on you.

The telephone people will give you any information about your own telephone service or about telephone matters in general.

They are animated with just one purpose—their primary and most important business is to serve you.

MICHIGAN STATE



TELEPHONE CO.

SATURDAY
APRIL 14th,
1923

VOL. X. No. 17

Being absolutely independent
our columns are open for the
discussion of any subject per-
taining to the farming business.

"How to the line, let the chips fall where they may!"

The Michigan BUSINESS FARMER

"The Only Farm Magazine Owned and Edited in Michigan"

Published Bi-Weekly
Mt. Clemens, Mich.

TWO YEARS \$1

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ter, August 22, 1917, at the
post-office at Mt. Clemens,
Mich., under act of March
3rd, 1879.

State Income Tax Promises Property Tax Relief

*Byrum Bill now before the Legislature Taxes Personal Incomes, Exempts Dependents, and will, its
Sponsors Claim Eliminate Property Tax—Quick Action from Rural Districts Necessary*

By LANSING CORRESPONDENT

THE proposition to provide the state of Michigan with an income tax which is based on the net income of all individual citizens is not a new one. At the last November election an income tax amendment was presented, which was designed to provide for a graduated income tax, the exact amount and all details being left to the legislature for their special enactment of laws to control its operation.

This amendment was voted down by a considerable majority which gave rise to the statement from the opposition that the people of the state of Michigan did not want an income tax law, and had proven it by their actions at the ballot. This statement is not believed to be founded upon facts. Certain it was that the residents of the rural districts in Michigan did not understand the meaning of his income tax, and there was no promise made in the discussion of it that there would be relief from the property tax, or that there was any possibility of the income tax taking the place of a property tax, or providing sufficient funds to enable the state to entirely eliminate the property tax.

The Byrum Bill

Shortly after the first of the year representative Warren E. Byrum of Leslie, introduced a state income tax which seems to meet the crying need of the hour; that of raising sufficient funds to cover the operation of state expenses and to lower the tax on those who are least able to pay them.

This bill, known as House Bill, No. 377, supposes a personal income tax of 4% on all individual incomes from all sources. It will yield a revenue to the state treasury of from 14 to 16 million per year. is in addition to the corporation privilege fee as provided by the 1921 legislature which raises from \$5,500,000 to \$8,000,000 per year, and will, with its addition of the four million dollars received annually from other state sources, being the total receipts for the general fund of the state to from 23 million to 28 million annually.

General property taxes are said to have increased practically 700%, from 1901 to 1921, and the property itself has been increased in assessments over 400%, while the average cost of state and local government has increased from \$17.49 per thousand in 1901, to \$28.88 per thousand in 1921. The fact is, that so serious has become the problem that in 1921 about one tenth of the home-owners, farmers, and property owners in the state were unable to pay their taxes and they were returned as delinquent. It has come to a point where there is serious weight given to the proposition that there is little incentive for one to purchase or farm in the state of Michigan.

Estimated Revenue for State

Experts have figured that on the basis of a 4% income tax as provided in the Byrum bill, the state will raise from between 15 to 20 million dollars annually. In 1920 according to the United States Internal Revenue Department, 305,000 per

IF YOU WANT THE GENERAL STATE PROPERTY TAX SHIFTED FROM THE FARMER TO THE NET IN- COME OF ALL INDIVIDUALS—ACT

THE Byrum Income Tax Bill, (House No. 377) is at this moment before the legislature of the State of Michigan. This bill, with which you are undoubtedly familiar, provides for a state income tax of four per cent (4%) on the net income of every individual, who has been resident of the state for six months or more of the taxable year, allowing deductions of \$1,000 for a single person, \$2,000 for a married person and \$400 additional for each child under 18 years of age or any dependent incapable of self-support.

The tax would become effective covering the net incomes of all individuals for the year 1923 and would be payable March 1, 1924 and each year thereafter. This state income tax would be deductible from the net income reported to the federal government.

That in a nut-shell is House Bill No. 377.

At Lansing, in view of the defeat of the income tax measure at the last election they are puzzled as to whether the farmers of Michigan are solidly for this Bill or not.

It is hard for The Business Farmer to understand in view of the small amount paid on net incomes to the federal government by the farmers of Michigan and the very much larger proportion of these taxes, paid by urban dwellers why any farmer should oppose the state income tax.

There is, undoubtedly, a powerful lobby at work in Lansing to defeat the present bill. Your representative must know that you, the farmers of their districts, are solidly behind them if you expect them to vote in favor of it.

There is not one minute to be lost. Do not depend on the mails. A telegram or a telephone call to Lansing will cost you little and get you immediate attention, if it can have the backing of your local arbor, grange, farm bureau or cooperative, so much the better. If you do not have time to call a meeting, get the approval of the officers and sign your appeals or pledges of support with the names of these officers and the name of your organization.

sons in Michigan have a taxable income of 470 million dollars, which at the rate provided by the Byrum bill of four per cent would yield to the state 18,800,000 dollars annually.

The income bill now before the legislature does not exempt state employees or school teachers who would all be forced to pay four per cent on their net incomes as would all other citizens of the state.

Unlike the federal income bill, the Byrum bill No. 377 taxes not only the net income but includes incomes from rentals, interest, profits, dividends, salaries, professional services, and all services whatsoever, except salaries of U. S. Officials, U. S. Government Bonds, and state soldiers' bonus bonds, which could not legally be taxed by the state.

Farmer Will Benefit Most

Needless to say, it is the farmer of Michigan, who will as a class, secure the greatest benefit from the passage of this act, and it is to the

farmer that the legislature is looking for an answer as to whether or not the farmers of Michigan wants this income tax passed at the present session.

In brief, house bill No. 377, provides a state income tax of four per cent to be imposed upon every individual who has been a bona fide resident of the state for six months or more during the tax year, upon his entire net income deducting an exemption of \$1,000 for a single individual, and \$2,000 for a married individual, in addition to which, \$400 may be deducted for each child under 18 years of age, or for any dependent who is not capable of self support. The tax is collectable March 1st, each year, beginning March 1st, 1924, on the income for 1923, and thereafter falls due 15 days before the Federal income tax from which all state taxes may be deducted.

The total receipts from this tax would go under the General Funds

of the state, and thereafter could be used as the legislature saw fit to appropriate it.

It is interesting to know how the Byrum bill would benefit the farmer tax payers of the state. In 1921 the property tax collected was as follows:

State Corporations	\$ 5,625,000
Other city property.....	7,275,000
Villages of state.....	1,550,000
Twps. outside villages	6,000,000

Total.....\$20,450,000

This shows that more than one-third of the actual property tax relief would directly affect the farmers of Michigan irrespective of their interests outside of the township in which they reside.

Bringing the proposition of the state income tax directly to your own door Mr. Reader, can you figure that your income tax in the state of Michigan would be approximately the same as you paid on the federal income tax the past year; in other words, the four per cent and the exemptions allowed are comparable to it, and would be in addition to it.

Income Tax Is Justified

An income tax measure is always justified by its sponsors because it derives its revenue from those who are best able to afford it. Other states in the union have provided themselves with an income tax. The state of New York, being an example of the successful operation of an income tax which provides sufficient money for the operation of all state departments.

Michigan is, as pointed out by Dr. Friday in a recent article in the Business Farmer, an industrial state, which must provide some encouragement to the farmers who are to supply her directly with the food products which she consumes. In no more direct way could this encouragement be offered than thru the establishment of a state income tax which the present legislature is able to provide.

Inquires made by the Business Farmer representative at the capitol this week, disclosed the fact that this measure is tied up in the hands of a committee, two members of which have been on the investigating committee traveling thru the sugar beet countries, holding meetings in regards to the employment of child labor in the beet fields. Other members of the committees are inactive, and the chairman insists that if a meeting is not called, and action taken before the end of the present week, he will ask that a new committee be appointed.

There is yet time for the farmers of Michigan to make their voice known, and every local organization in the state, has within its power to let both representative and senator at Lansing, know that the rural community is solidly behind him in his vote for the passage of this law at the present session.

Political observers believe that this measure will pass the House quickly, and that particular pressure should be brought upon the Senate where its passage will not be as easy. There seems to be no doubt but that the governor will sign it, and it would become operative covering the net incomes of the present year.

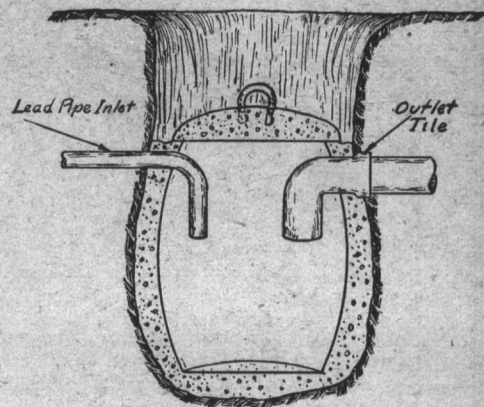
FARMERS' TAXES IN 1922 EXCEEDED INCOMES

TAXES which the farmers of the United States were called upon to pay in 1922 amounted to a larger sum of money than the total net incomes of the farms of the United States of the same year according to official statistics recently made available. Agriculture cannot prosper until the tax problem is properly solved.

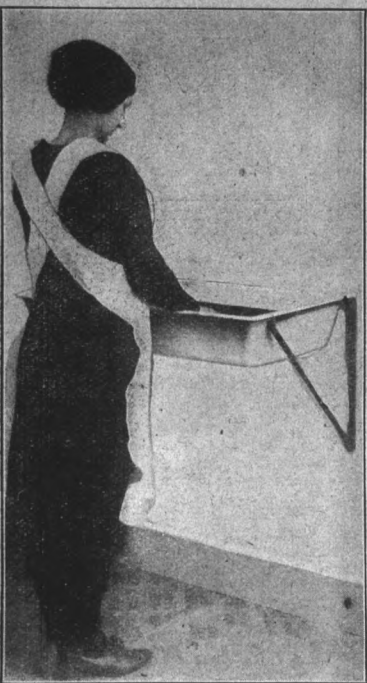
Saving Mother Those Extra Steps

Dan Baxter Shows His Father How They Can Intall a Kitchen Sink for Mother At Little Expense

By MILON GRINNELL



Sink water should not be merely run out on the surface. It soon becomes unsightly, ill-smelling, and a harbor for flies. Since the sink water does not contain much solid matter, it can usually be disposed of very readily by fairly simple methods. Owing to the grease which is generally present in waste water, it should not be run directly into a tile drain, whether this line runs into the farm drainage system or is merely a short line running away from the house. If the waste water is first run through an easily constructed grease trap, the grease will be separated so that the water can pass out into a tile system without danger of clogging.



There should be a sink in the kitchen of every farm home in Michigan. The cost of installation is very small and the extra steps saved in one month more than pays for it.

"THANKS, Dan, for drying the supper dishes," said Mrs. Baxter, as she took the dish towel from the hands of her son and hung it up to dry. "I have had a busy day today and am very tired."

"Glad to help you mother," replied Dan.

He stood watching his mother as she carried her pan containing the dish water to the back door to empty it into a pail. Then glancing thoughtfully about the kitchen he passed into the livingroom where his father sat reading the daily paper.

Dan Baxter had just completed his first year at the Michigan Agricultural College and was helping his father during the summer.

At College he was learning the value of farm home conveniences, how they make life on the farm more pleasant and pay the cost of installing within a short time through work and time saved. He had never noticed very much the lack of the things that make a home modern until this summer, and it had never been brought as forcefully to his mind as it was when he stood watching his mother carry her pan of dish water to the door to empty it into a pail. His father had the latest machinery to do his farming with and his barns were most modern. His father was a good man but he was so busy with farm work that he thought little of the house or mother's comforts.

Dan walked up to where his father sat.

"Dad," said he, as his father glanced up at him from the paper he was reading, "you have been so busy with the farm and I with my school work that we have neglected mother. She is working very hard and we can make at least a part of her work much easier."

"Now what put that idea into your

head?" John Baxter's voice was deep and pleasant to hear. "Mother never said anything about wanting anything. Whenever she wants a dress, or dishes or anything she always just goes and buys it. She is a partner in the business, son, and knows what we can afford as well as I do."

"That proves what I just said," exclaimed Dan. "You are too busy with your farm work to notice. Mother takes hundreds of steps each day that we can save her—"

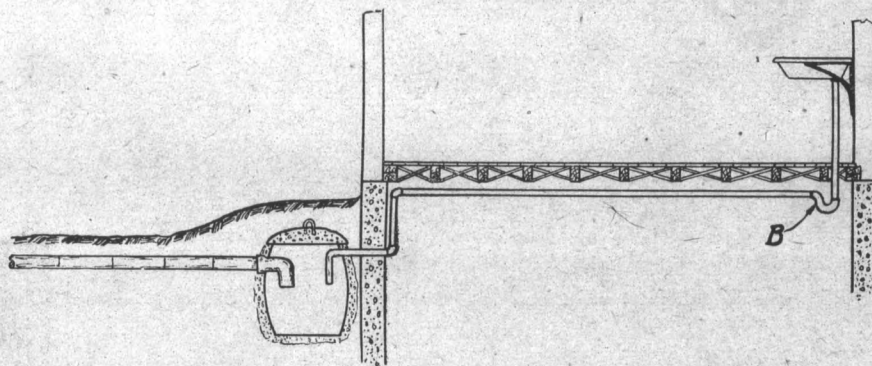
"How?" interrupted his father. "By putting a sink in the kitchen," said Dan.

"But we can't afford any such thing. We would have to hire a plumber to install it properly and put in the drain—no, that will have to wait a while yet." And his father returned to his reading.

But Dan was determined to get a hearing as he knew his father would install the sink at once if convinced that it could be done at a reasonable expense.

"If you will listen for just a few minutes, dad, I can tell you all about how we can install the sink ourselves and the expense won't break you either."

John Baxter was thinking about what the boy had said to him about neglecting his wife. He hadn't noticed. Dan was right. He folded



A trap (B) should be placed in the sewer line when the sink is eight feet or more from the outside wall. This prevents the backing up of offensive gases caused by the accumulation of waste matter in the pipe from the sink to the grease trap.

ed the paper, laid it on the table, and turned toward Dan.

"Alright, son, shoot," he said.

"First, we will consider the cost," began Dan. "The total cost of installing the kitchen sink, aside from labor, all of which you and I will do, will be \$12.50 to \$22.85, depending on the kind of sink you put in."

"Is that all it is going to cost us? Why I thought it would be about twice that. But do you understand all about installing one?" questioned his father.

"No, I don't, but I have a bulletin that I brought home from the M. A. C. that explains in full about it. Just a minute and I'll get it." And he went up the stairs leading to his room taking two steps at a time.

Mrs. Baxter came into the room having completed her work and her husband noticed for the first time how tired she looked. She was working too hard, he could plainly see now. Have to pay more attention to her comforts hereafter, he decided.

"Where is Dan?" she asked.

"Just gone up to his room for a couple of minutes. Had a hard day of it, mother?"

"Yes, I have, John, and I am rather tired. I guess I'll go straight to bed."

Good idea," said her husband. And as Dan came down stairs. "Dan and I have a little figuring to do before I roll in."

Dan bid his mother goodnight and then drew a chair up beside his father's.

"Here's all the dope," as he opened the bulletin. "We will take a paper and pencil and write down what we need."

Mr. Baxter thought for a moment. "Of course, that will be up to mother, but I suppose she will want it under that window on the north side of the kitchen. That would be a fine place for it as the light is very good and then it is near the stove so she would not have to take so many steps."

"Alright, dad, we will leave that for mother to decide. Now the next thing on the program, according to the bulletin, is how high the sink is to be from the floor. The bulletin states that for a woman 4 feet 10 inches tall the working surface or bottom of sink should be 30 3/4 inches; 5 feet 5 inches, 34 1/2 inches; 5 feet 7 inches, 35 inches; 5 feet 10 inches, 37 inches."

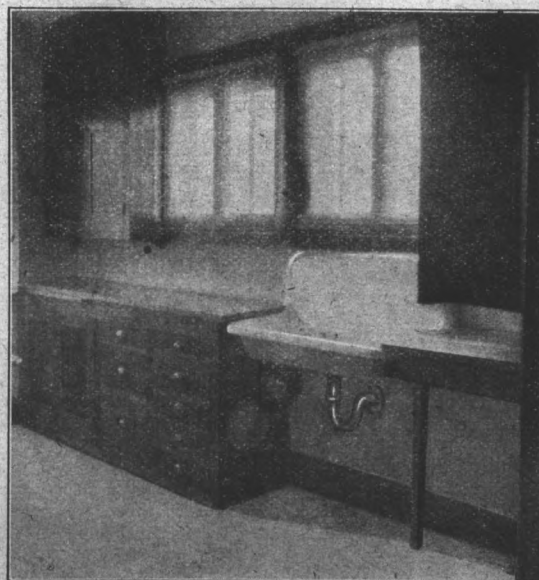
"I reckon that it would have to be about 35 inches from the floor for mother," mused Mr. Baxter. "She is about 5 feet 7."

Dan could see that his father was very interested as he did not notice when the clock struck nine, which was his bedtime. Urging Dan to go on he reached for his pipe.

"Read about the installing," he said settling himself back in his chair.

"First," read Dan, "after the location of the sink has been decided upon, measure up from the floor the proper height for bottom of the sink or working surface, then add five inches for the depth of the sink. Draw a level line on the wall at this point."

"A sink may be attached to the wall either with sink brackets or a sink yoke or frame. The yoke is stronger and more easily put up although more expensive. The brackets or yoke should be attached to



What woman wouldn't be pleased to have her kitchen arranged like the above? The sink is located directly under a window so that light is ample making working conditions better and the sink more sanitary. On the right of the sink is a large drain board while to the left are built-in cupboards and a flat top cabinet. In this kitchen one would have to take only a very few steps in preparing a meal. Notice there is no pail for sewage in this case. A tile drain takes care of the waste water.



In this case the sink has not been properly installed. In the first place it is placed back in a corner where the light is very poor. No woman would care for a sink located like this one. It should be near a window. Also this sink has an inadequate method of sewage disposal. When the pail is full it is necessary to carry it outdoors making many steps that are not necessary.

PICTURES FROM FAR AND NEAR



GETTING ALONG NICELY, THANK YOU.—For the first time in ten years, a baby camel, born in New York, has lived over the critical age of the first two or three weeks. Here is the newest addition to the Central Park Zoo, New York City, a baby camel, three weeks old, with its mother and the keeper.



EUROPEAN MIDGETS VISIT THE NATIONAL CAPITOL AND INSPECT THE FIRE DEPARTMENT.—Midgets from all parts of Europe who arrived in Washington inspect the Fire Department and demonstrate to the Chief their ability to do big things. Photo shows a group of midgets who have donned firemen's hats already for action.



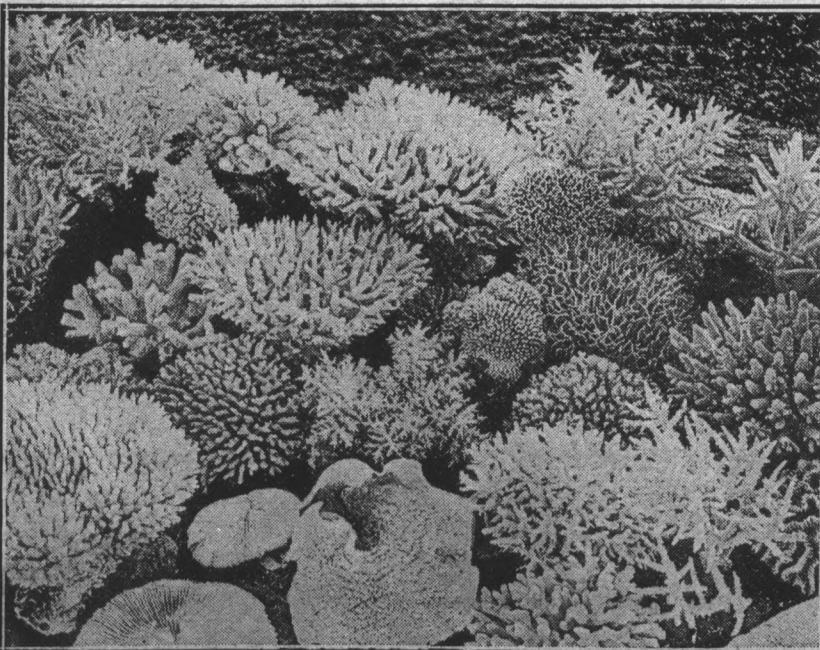
RIVALS QUEEN OF SHEBA IN SPLENDOR.—Eleanor Boardman, of the movies, wears here a headdress of glycerined ostrich and cross aigrettes, with a bandeau studded with rhinestones and pearls. It is valued at \$600 and in a forthcoming production Miss Boardman will ruin it by jump-overboard while wearing it.



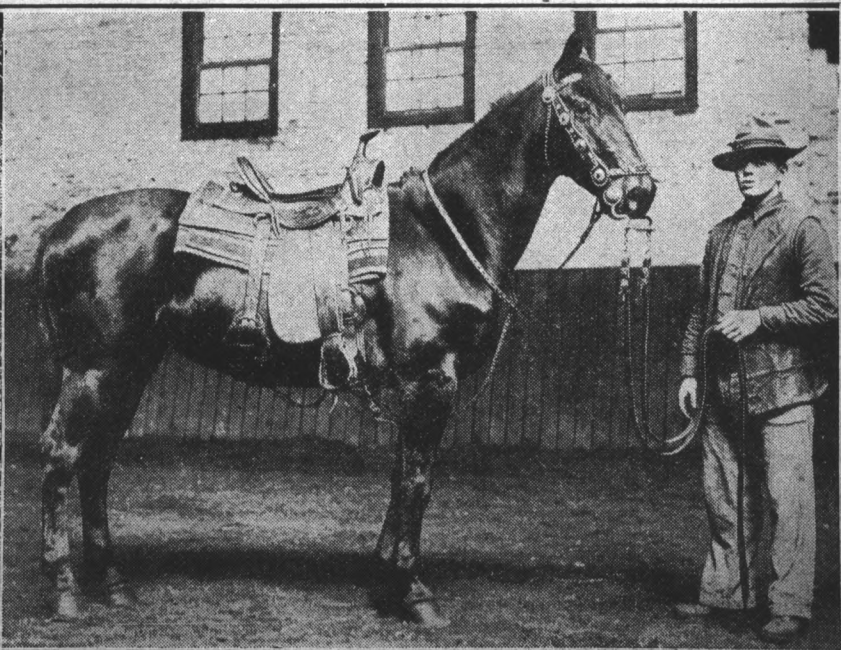
70,000 FAMILIES IN HIS CONGREGATION.—You can imagine how big a church it would take to hold them all. Yet Rev. David F. Warner has assumed the pastorate of The Business Farmer's congregation and you will find his first sermon on page 11 of this very issue. Rev. Warner is here shown with his good wife and help-mate.



EASY TO MAKE MONEY, SAYS HE.—Lord Leverhulme, English soap magnate claims that it is the simplest thing in the world to make 100,000 pounds or twice that sum. But absent-mindedly he has forgotten to add the recipe for amassing such a sum. He considers Henry Ford the leading member of the "Make Money Club."



IN NATURE'S UNDER-SEA GARDEN.—These look like so many flowers, but in reality they are just some very pretty specimens of coral. This picture was made, with difficulty, under-sea, off the coast of North Queensland, Australia and the coral is much in demand throughout the world.



QUITE AN EXPENSIVE SEAT.—Would you pay \$600 for a seat? Well, that is what this saddle and bridle cost. It is German Silver mounted and is very rare, both for its price and its unique service. The horse is named "Peg" and is the property of Capt. P. C. Lewis of Troop A, 110th Cavalry.

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It does such good work and threshes so well when conditions are bad that the best and biggest jobs wait for it.

And the man who owns it makes the most money because it gets those jobs.

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Lower Prices—New Features
New Paddle Roll Self Feed, improved feed table, larger throat capacity, additional strength. Better Blizzards at a saving. **WRITE** for big, new circular—describing the 1923 models.

DICK'S Blizzard Ensilage Cutter

All Blizzard models now self-feeding. Some have automatic feed control. You can depend on Blizzards to do most work per H. P., elevate any height, cut evenly, keep going and last for years at small upkeep.

Circular also describes Dick's "Famous" Feed Cutters—old reliable for 40 years—for hand or power operation.

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THE NEWTON REMEDY CO., Toledo, Ohio

Farmers Service Bureau

(A Clearing Department for farmers' every day troubles. Prompt, careful attention given to all complaints or requests for information addressed to this department. We are here to serve you. All inquiries must be accompanied by full name and address. Name not used if so requested.)

TREE SURGERY

In our cemetery we have many beautiful shade and ornamental trees. During the past summer many of the trees all of the silver-leaf maples were badly injured by the bark cracking, on some trees from the ground to the lower limbs a distance of four or five feet. The insects had entered and the trees were in great danger of being ruined. We had all foreign and dead bark cut away and the wounds painted. Did we apply the proper remedy or what should be done where the bark is injured by being broken or torn away? We would like some information relative to tree surgery, if you would kindly direct us where to get it.—Mrs. E. A. N., Kingsley, Mich.

—The damage to the silver maples is probably the result of sun scorch or as it is sometimes called, sun scald. This damage is quite common on smooth barked trees, especially on those portions of the trunk which for some reason, such as pruning or the removal of neighboring trees or shrubs are suddenly exposed to direct sunlight. It occurs often on trees which have been recently planted and where the crown is not sufficiently developed to shade the stem of the tree or where there is reflected light from some cause as well as direct light from the sun. It occurs only on the southwest side of the tree and if the injury is on some other side it was caused by another agency. Such damage can only be prevented by shading the stems of the trees which seem susceptible. This can be done by tying burlap or some other material around the stem of the tree.

After such injury has occurred, or any similar injury, all injured bark and decayed wood underneath should be removed and the wound painted with lead paint or better still with creosote in order to prevent infection. You could obtain a bulletin on tree repair by writing to the Forestry Department of the Michigan Agricultural College, East Lansing, Michigan.—A. K. Chittenden, Professor of Forestry, M. A. C.

FENCE VIEWERS

I have no law book and will ask where and how the fence viewers are obtainable or where I can get them. I also would like to know how to collect damages for neglect on live stock.—N. A. A., Leroy, Mich.

—The highway overseers and highway commissioner are fence viewers in each township. When any controversy arises between occupants of adjacent farms over a partition fence, it is their duty to view fences and determine the rights of the respective parties. When cattle break through a partition fence and damage the adjoining land owner, he may bring an action of trespass for such damage provided he has kept in good condition his share of the fence.—Asst. Legal Editor.

DO NOT DESTROY TREES OR SHRUBS ALONG HIGHWAY

I own a farm along state trunk line and brush has not been kept cut along same as I moved here a short time ago. I wish to clean up along the road, but have been told it is against the law to cut brush along trunk line as it is to remain for shrubbery. Please let me know is there any such law in Michigan, when passed and what is the penalty for same?—P. K., Lowell, Mich.

—I call your attention to Act 2 of the First extra session, Public Acts of 1921, which reads in part as follows:

"It shall be unlawful to cut, destroy or otherwise injure any shade or ornamental tree or shrub growing within the limits of any public highway within the state of Michigan without the consent of the authorities having jurisdiction over such road."

The purpose of this legislature is for the advancement of roadsire development as well as for the protection of the highways by the preservation and planting of shade trees therein and before a property owner would be authorized in cutting or

removing trees or shrubs, he should make application to the authorities having jurisdiction over the highways who will grant the permit to remove such trees or shrubs as do not materially benefit such highway.

On country roads property should apply to the Board of county Road Commissioners, on township highways to the township highway commissioner and the township board and on trunk line highways and federal aid roads, application should be made to the State Highway Commissioner.

The penalty for violation of the above cited act is a fine of not to exceed \$100.00 or imprisonment in the county jail not to exceed 30 days or both such fine and imprisonment.—H. H. Portlaw, Legal Advisor, State Highway Dept.

CAN AGENT COLLECT COMMISSION?

I have a question I would like to have answered in your next issue if possible. If I give a real estate man the exclusive right to sell my farm for a certain length of time, and during that time another real estate man sells said farm, can both collect commission? Or if I sell said farm myself, can either real estate agent collect?—L. McC., Croswell, Mich.

—Only the man who sells your farm can collect commissions, and if you sold it yourself, neither can collect. However, if you made a contract with a real estate agent, giving him the exclusive right to sell the farm, and then breached that contract before its termination by employing another to make the sale, or selling it yourself, you would be liable to him for any damages he may have suffered by reason of your breach of contract.—Asst. Legal Editor.

PLANNING A LIVESTOCK LEASE

Will you kindly suggest an outline for a lease where the landlord furnishes the cows, brood sows and poultry, and the necessary feed until more is grown? The tenant is to furnish horses, machinery and all help. Who should furnish the seed? How should threshing and silo filling bills be divided? Who should pay the personal property tax and the insurance?—G. C., Saginaw County.

—It would seem that the ordinary half and half livestock lease would be best adapted to your case. Under this arrangement, the landlord and tenant usually own the cattle, hogs, feed and seed in partnership. The tenant furnishes the horses, machinery and labor. In your case the tenant could buy a half interest in the cattle, hogs, feed and seed, and if he has not the ready money, could give you his note secured by chattel mortgage on his share of the goods and on his half of the crop. Usually the tenant is allowed to keep up to one hundred hens and to raise sufficient chickens to maintain the flock

and have the product for his own, but sometimes the poultry is included in the partnership. Most tenants will not give much attention to poultry if the product must be divided with the landlord. All sales are divided half and half. If dairying is the principal source of income, or if the farm is rather run down, the landlord may find it necessary to furnish all the cows in order to keep a good tenant on this basis. The idea is that if the tenant is required to increase his labor bill in order to milk a large number of cows, the landlord should do something to offset this extra contribution of the tenant. Such bills as threshing, twine and rent of machinery for silo filling are divided half and half. Each party ordinarily pays the personal tax and insurance on his own property. Taxes and insurance on company property are divided half and half. The landlord usually furnishes all the grass seed, although on a long-term lease, this may be divided.

OFFICERS WHO ENFORCE PROHIBITION LAW

Some months ago you published in your paper particulars in regard to conducting an investigation of the prohibition law. We have altogether too much of it in this county. Please give me the name and address of the one whom it is necessary to inform.—Subscriber, Kalkaska, Mich.

—An investigation in regard to the violation of the prohibition law can be conducted: (1) By any private citizen who could report the result of his investigation to the law-enforcing officers; (2) by the law-enforcing officers of any city or village; (3) by the law enforcing officers of the county; (4) by the law-enforcing officers of the state, including the State Police, and (5) by the law enforcing officers of the Federal Government.

Whether or not there is too much investigation of violations of the Prohibition Law is of course a matter of opinion and should any citizen want such investigations discontinued, I should judge he would have to take it up with the different classes of law-enforcing officers, above mentioned.—Charles J. DeLand, Secretary of State.

C LIABLE FOR RENT

A sells 40 acres to B on contract. B makes small payment down and is to make another of \$500.00 first of January, 1923, to gain full possession at that time. He fails to meet the second payment. B rents some land to C for wheat shortly after purchase. Can C hold wheat as per agreement?—C. E., Williamston, Mich.

—If C has leased the farm from B as purchaser under a land contract, and through no fault of C's the estate of B is terminated by B's forfeiture, thus terminating the lease, C has a right to cultivate and harvest the crops which he has planted while the lease was in effect, being liable to the vendor under the land contract for rent according to the terms of the lease.—Asst. Legal Editor.

MICHIGAN CROPS

RAISING MORE AND BETTER POTATOES

In a recent issue, you had an article, entitled "More and Better Potatoes to the Acre," by E. Sutton. I do wish you could get him to give a detailed article on how he raised them, how deep he plowed, and when, what kind of fertilizer, and how put in. How many eyes he aimed to put in a hill, and everything connected with the growing of potatoes, including spraying and cultivating, also if ground was plowed in fall or spring. Would certainly be pleased to see an article of this kind in your paper.—R. G. H., Berrien Springs, Mich.

—The raising of potatoes is getting to be more of a problem each year. Farmers are awakening to the fact that ignorance along this line is keeping them back. But it also makes them work harder with less results.

I am passing along my ideas of raising better potatoes. Beginning with what I consider the very first step, namely, a good clover sod. This

I manure thoroughly with a spreader using 20 to 30 loads to the acre.

If I am in a position to do so I put the manure on the year before, or as early in the spring as we can get on the ground. This should lay on the ground 2 or 3 weeks before plowing or until the rains have soaked it well into the soil.

I plow at least 8 inches deep dragging it lightly before quitting time each night. On this I sow commercial fertilizer, broadcast or with grain drill, working it thoroughly into the soil using ½ to 1 ton per acre. I use 0-10-5, 0-10-10, or 2-10-5. This I drag once a week good and deep until planting time.

We have tried fertilizer both in the row and broadcast and have had better results with the latter especially if it happens to be a dry season. If the acreage is small I prefer them rowed both ways. About 28 or 30 inches each way. This year I intend to put mine 24 by 28 inches to keep them from growing too large.

Good seed and spraying are es-

essential. I select disease free Russett Rural potatoes. Cut them in blocky pieces, weighing not less than 2 ounces and having at least 2 eyes to the piece.

In spraying we use a power sprayer. Three nozzles to the row and 200 pounds pressure. We begin spraying when the vines are 6 inches high, continuing about every 10 days until we have at least sprayed them 5 times. When spraying for bugs we mix Arsenate of Lead with bordeaux doing both jobs at once. The first couple of times cultivating, I cultivate deep to loosen the soil, after that I cultivate shallow and level, keeping away from the plants.

In the Business Farmer of March 31st we were interested in the article "Shall We Plant Our Potatoes Earlier." The writer's idea might be all right for his particular locality, but as we live in Antrim county, near the lakes, where we have cool nights with a good amount of rainfall and are not bothered by frosts, we do not exactly agree with him. Our experience has been that if we plant before the 10th of June, about 4 years out of 5 we have a dry spell and it is sure to shorten the crop. We have raised potatoes planted as late as the 19th of June that were thoroughly ripened and taken care of before the frost came. Our season is shorter but potatoes grow faster than further south.

We treat our seed then green sprout them. We spread them very thin on the floor so that light gets to every potato and leave them from 4 to 6 weeks. By doing this we have stronger vines and they come up from a week to 10 days earlier.

We like to cut our seed about two days ahead of planting, but if this is not possible we use dry sulphur to heal them over quicker and make them better to handle.—E. Sutton.

TREAT SEED CORN WITH COAL TAR

Can I put anything on my seed corn before planting it to prevent crows pulling it up? I read in one of the papers last year where a man stated he had treated his seed with Creso Dip No. 2 and the crows did not pull up his corn. Do you think this would stop them? Is there any other remedy? How many pecks of white navy beans will it take to plant an acre of ground, rows 3 ft. apart and 18 inches apart in rows, or would 32 in. be wide enough between rows? I would plant 7 to 10 beans in a hill.—H. S. Whitmore, Mich.

—The coal tar treatment is one of the most effective for treating seed corn to prevent crows from pulling it up. This treatment is an old one and has been proved by years of use in Michigan. Several days before planting, the seed corn should be shelled and graded. The corn to be treated is moistened for ten minutes in lukewarm water. The water is then drained and coal tar applied at the rate of two table-spoonsful to a bushel of seed corn or one teaspoonful per peck. The coal tar is stirred thoroughly through the moistened corn until the kernels are evenly coated with a thin film. The corn is then spread out thinly on a floor or table to dry.

Creso is a coal tar product, and hence commercial Creso Dip is also effective.

From fourteen to sixteen quarts of beans are required to plant an acre of ground—rows 3 ft. apart, hills 18 inches apart, 7 to 10 beans per hill. On ground of average or better fertility you will get a larger yield by planting in rows thirty-two inches apart, in which case sixteen to eighteen quarts would be needed per acre.

Our experiments at M. A. C. show that on land of good fertility highest yields are secured by planting in rows twenty-eight inches apart, using from twenty to twenty-four quarts of seed per acre.—J. F. Cox, Professor of Farm Crops, M. A. C.

TREATING SEED POTATOES

I would like to know if you would advocate filling a silo with stover silage. We do not know what to do; buy a new ensilage cutter or put the silo filling attachment on our McCormick husker and take out all the corn. Does stover ensilage keep well and how do you take care of corn so it does not spoil? Will you please tell me just how to treat seed potatoes with Corrosive Sublimate?

I would like to try mine this spring.—W. S., Lansing, Mich.

—Recent experiments at M. A. C., conducted by the Department of Animal Husbandry, show that stover ensilage is much less efficient for fattening steers than ensilage made from corn stalks carrying the ear at the proper stage of maturity. Stover ensilage will keep as well as ensilage made from the entire corn plant if properly packed in the silo and if sufficient water is added. It is usually in a more advanced stage of maturity and hence dryer. The addition of sufficient water when filling the silo will insure the proper keeping of stover ensilage. A larger amount of purchased concentrated feeds must be fed with stover ensilage than with ensilage made from the whole corn plant.

The following method of treating seed potatoes with Corrosive Sublimate is given in Experiment Station Bulletin No. 117:

Seed potatoes should be carefully graded and all ill-shaped, mechanically injured, and partially rotted tubers should be removed before the seed is put in the disinfecting solution. Potatoes should be comparatively free from dirt before they are treated. Potatoes should be treated while they are dormant and be-

fore they are cut. Soak the potatoes for 30 minutes in a solution of corrosive sublimate (Bichloride of mercury), the strength of which is 4 ounces of corrosive sublimate to 30 gallons of water.

Dissolve the 4 ounces of corrosive sublimate crystals in 2 quarts or so of hot water, and then add it to the 30 gallons of unheated water. Corrosive sublimate corrodes metals. It should be used in wooden vessels. A 50 gallon wooden barrel is a satisfactory container in which to soak the potatoes. By using two or more barrels, a large quantity of potatoes can be treated in a day.

Where 100 bushels or more of potatoes are to be treated, the work can be done conveniently if a wooden trough or tank that will hold 8 or 12 potato crates is used. The potatoes in bushel crates are immersed in the corrosive sublimate solution. The tank can be made water tight by lining it with canvas and giving the canvas a coat or two of asphaltum paint.

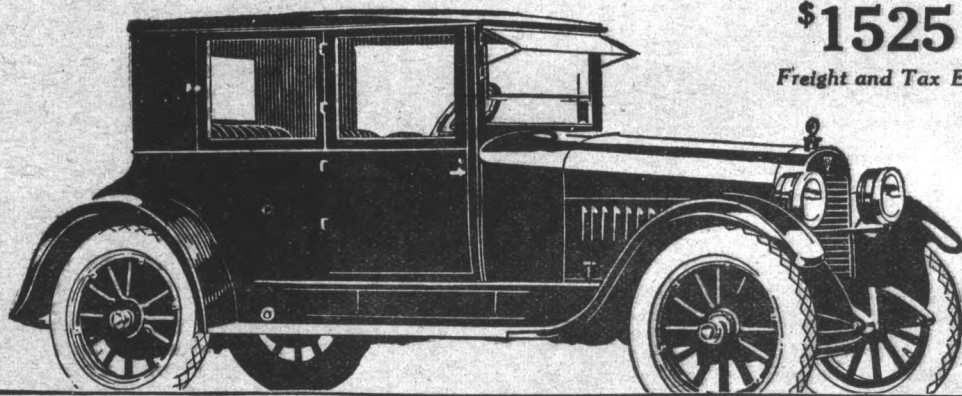
The corrosive sublimate loses its strength with use, because the potatoes and dirt condense and chemical and take it out of solution. From one-tenth to one-fourth of the corrosive sublimate is removed with each batch of potatoes treated. The

treating solution can be kept at the proper strength by adding corrosive sublimate from time to time. If the potatoes are placed in the solution loose and are comparatively free from dirt, add one ounce of corrosive sublimate dissolved in one quart of hot water for each 30 gallons of liquid after each second batch is treated.

If the potatoes are dirty and are treated in bags, add one ounce of corrosive sublimate for each 30 gallons of liquid after each batch is treated. When the treating solution gets very dirty, discard it and make up a fresh solution. One pound of corrosive sublimate will treat from 30 to 60 bushels of potatoes.

Corrosive sublimate is a deadly internal poison. Do not pour the solution where livestock or poultry can get at it, and do not use treated potatoes for eating purposes.

After the potatoes have been taken out of the solution they should be spread in a cool, shady place and allowed to dry thoroughly. It is a good plan to soak the bags or crates used for handling the treated seed in the corrosive sublimate solution in order to prevent any possible re-infection.—J. F. Cox, Professor of Farm Crops, M. A. C.



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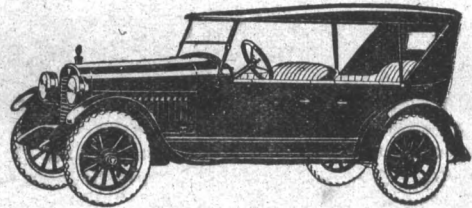
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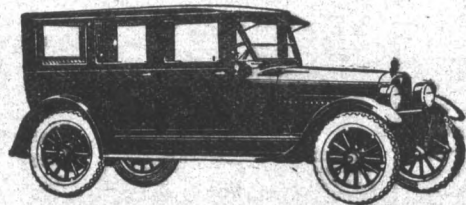
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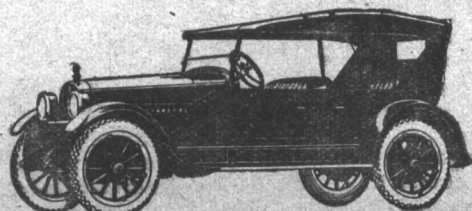
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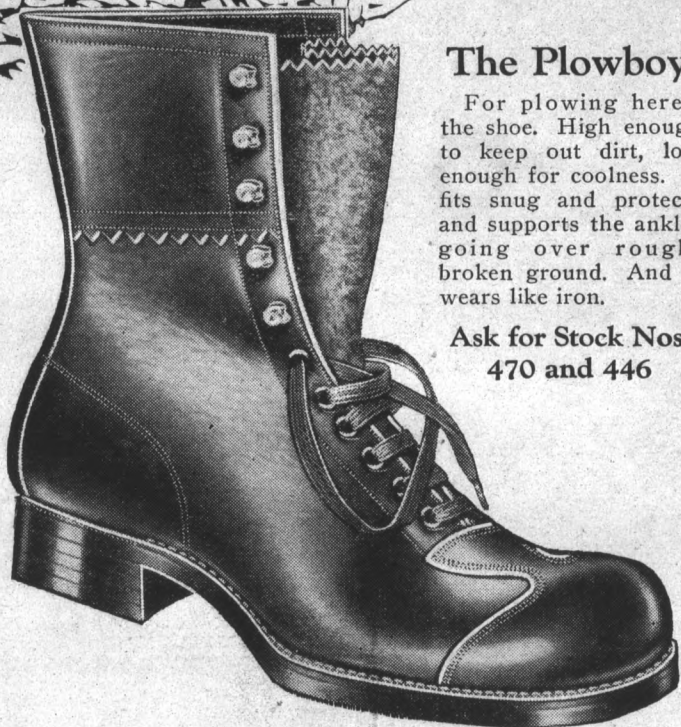


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Double-Tanned—Double Wear



The Plowboy

For plowing here's the shoe. High enough to keep out dirt, low enough for coolness. It fits snug and protects and supports the ankles going over rough, broken ground. And it wears like iron.

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It Wears 1000 Miles and it stays soft—rain or shine

We are exclusive makers of work shoes made of horsehide double-tanned by our own secret process.

This is our specialty. Our every energy is bent on making the world's strongest work shoes. To insure the best wearing leather we do our own tanning, in our own specialized tanneries. We tan horsehide, and it is known as the toughest fibre leather on earth, yet we make it soft and pliable as buckskin. Horsehide is used to cover league baseballs because it is the only leather tough enough to stand the pounding.

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You'll say that Rouge Rex Shoes are the most economical shoes you ever owned, and you'll rejoice in the comfort they give you. Notice how thick the leather is, and then feel how soft it is. Just like velvet. Yet Rouge Rex wear like iron. And they never tire your feet.

We make a Rouge Rex work shoe for every purpose. All are horsehide through and through. For field and factory, for lumber and mining camp or oil fields, for hunting and motoring, where a husky, hard-wearing, comfort-giving shoe is needed, there is a special Rouge Rex shoe.

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Rouge Rex Comfort Shoe



This Rouge Rex is so pliable and soft you can double it up like a moccasin. It wears like iron but you'll hardly know you have a shoe on, it is so soft and easy. For tender feet, or where you do not encounter wet weather, wear this Comfort Shoe. You'll find it a blessing to the feet.

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Dept. K230 Grand Rapids, Mich.

The Truth About Henry Ford

By Sarah T. Bushnell

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The Conclusion

FOR five years foreign-born laborers have received diplomas symbolic of nine months training in citizen-making. I sought a man to whom Mr. Ford had said: "The Bible is the most valuable book in the world. If it could be written in the language of today, I would scatter a million copies among the people who never read it and who fail to grasp its worth and beauty." I asked this man, Mr. Brownell, this question: "How has this great millionaire made the educational department of this plant the very dynamo of its success, and why has he given a clergyman such wide and sweeping power?"

Mr. Brownell took off his glasses and laid them carefully on the desk. "He does it by dispensing practical Christianity, interpreted through dollars and cents; in the sharing of profits with employees; in opening the doors of employment to maimed and crippled men, and to men who have unfortunately run into debt to society, but who have paid such debts in full. His has been the humane recognition that all men are of common clay and that all, barring none, are entitled to a helping hand."

"You shall meet Dean Marquis, head of the educational department, and Mr. DeWitt, head of the English school, which should really be called the American school, for its scholars are from fifty-eight countries and they speak one hundred different dialects. They have been taught one language and have been trained to become citizens of our own American nation. But first let me tell you an incident that will illustrate how men have been reclaimed in this factory. "One cold night in December an official of the company was called to the front door of his house. Outside was the half-wreck of a man, who plunged into complaint without formality. "They say Henry Ford gives the fellow who is down and out a chance—that he thinks there is some good in the worst of us, but it is a lie—a black, barefaced lie. I have stood in line at his plant trying to get work and never have been given a look-in. I'm at the end of my rope and I've got to go back to my old ways."

"The company official interrupted him. 'Mr. Ford wants to give every man who deserves it a chance,' he said. The other man shivered. 'Ever since they turned me loose, two years ago, I've tried to go straight, and every time I get a job a dick passes the word and I'm fired. If I can't get steady work I'll have to be a crook again. To-night they—'

"Don't worry about tonight," the company official told him; "come to the factory tomorrow and a place will be found for you. We have more than five hundred men who have served penitentiary sentences and only two of them have disappointed us. When you begin work no one will be against you so long as you do what is right."

Somewhere in that great factory that man made good and he is still working there.

The probation period, formerly six months, has been reduced to thirty days, the minimum salary raised from five to six dollars a day. There has been no strikes nor is there any labor discontent. The power of discharge has been taken out of the hands of superintendents and foremen. They can discharge from their departments, but not from the factory. The employment office investigates and places the laborer in that other department to which he is better adapted.

The Educational Department, through the advisors, or helpers, has a record of the living conditions of each employee. They know his habits, good or bad. They know what money he has saved, if any. They know what insurance he carries. They consult with him as to his bank savings. They have taught him how and why to save. In rare cases they have moved his family to Detroit and provided a home in which to shelter them. There is nothing of the spy or detective methods in their visits

and interest. They teach the employee hygienic living and how to buy food. While teaching him how to earn money they also teach him—which is more important—how to spend it. They have taught him that debt is the result of poor management or misfortune.

Take for example the case of an employee who wages were garnished month after month. He was industrious and hard-working; the bills were not of his making. An advisor was sent to his home. He met the wife, a nice little woman who believed in a happy-go-lucky existence, and who made expenditures out of all keeping with her husband's salary. That she was a woman of sense was proven when she grasped the idea that this sort of thing could not continue. A scientific housekeeper was sent to instruct her in up-to-date economics. She welcomed the suggestions made. To-day the bills are paid, the man and his wife own their home and have money in the bank.

There is another rule on which the cornerstone of right living must be laid—an employee, if it be thought justifiable, is required to produce his marriage license. No recognition is given socialism or free love. This is mentioned because a case of this sort was recently made an issue. An important ruling of the Ford company in 1913 covers such questions.

The legal department aids the workers by examining deeds to property they wish to buy, assessing its value and passing on the validity of the contracts.

In the Ford English school are natives of Arabia, Persia, India, Poland, Armenia, Turkey, Chaldea, Albania, Serbia, Korea, Macedonia and other innermost parts of Asia, Europe and obscure regions of the world. Each of these foreigners speaks two or more dialects, but has no knowledge of our own language. They are taught reading, writing, arithmetic and grammar according to the modernized methods of Francois Guoin, who lived in 1710. The everyday problems of life are the keynote of each lesson, and a new psychology of good fellowship and interest accents the instruction. Mr. DeWitt was recently borrowed by Pennsylvania to demonstrate to the teachers of that state his original experiments. Mr. Ford watches the lessons. The one on birds, which emphasizes the great American bird, the soaring eagle, the emblem of freedom, is his favorite. There are other lessons which Mr. Ford personally supervises—for this department is the child of his brain and is dear to his heart. The foreigners are taught cleanliness, table manners, courtesy in public places and also, when possible, they are instructed in gardening. As an evidence of the eager earnestness of the pupils the case may be cited of a Macedonian who learned the Constitution of the United States verbatim in four days.

The nine months' course has been turning out annually between three and six thousand graduates. The diplomas, signed by Henry Ford, Dean Marquis and Mr. DeWitt, state that "the holder has been given ground work in English which enables him to write it and to read it within certain limitations. It gives him a definite comprehension of the rudiments of government, national, state and municipal, and fits him to become a citizen of the United States and to understand the obligations thereof."

The day war was declared Mr. Ford instructed the chief of his medical staff to ascertain accurately the exact number of positions that might be filled with disabled soldiers. Every wheel and cog of the factory was devoted to winning the war, and openings have been made for those who served. Dr. Mead reported that four thousand maimed and injured could be used. The factory was then using thirty-seven deaf men, two hundred and seven civilians blinded in one eye, sixteen who were deaf and



fore peace was signed the Ford factory had employed seven hundred and eighty-three disabled soldiers. Positions have been given to five thousand and four hundred and eighty returned soldiers and sailors, and more are constantly being added. Direct instructions have been issued that soldiers are to be given preference over all other applicants.

A great problem in every factory is tuberculosis. It has been demonstrated in the salvaging section that tubercular patients are as productive as any other class of workmen. Hospital treatment is given free. The state law of compensation allows ten dollars weekly to a bedridden man; the Ford company gives eighteen to twenty dollars. Mr. Ford believes that regular wages and light work will drive away worry and expedite a man's recovery. Hence handiwork is taken each day to patients able to sit up, and they are enabled to earn full wages.

Just as he conceived the perfection of his tractor while on a vacation by watching the movement of a horse's legs, so Mr. Ford's mind reaches out to help humanity. Indifferent to the usual hobbies and amusements of men of the world, he has his own interests and recreations. He believes in practicing the gospel, "Give a man the chance he deserves, not charity." The following incident is so unusual as to seem improbable, yet it is true. As Mr. Ford was driving one day he passed a much be-draggled tramp to whom he gave a lift. The tramp claimed to be penniless and without work, and for that reason was walking to his sister's home in Connecticut. The next day he was given a position in the Ford plant. The employment office was instructed to equip him with the necessary clothes and report his progress to the office. All moved smoothly for a while, but, unlike the usual fairy tale, the end of the month found a restless worker instead of a diligent one. He was moved to another department, but when pay day came his restlessness had grown to loud protests, and to Mr. Ford was brought the news that wanderlust was beckoning his protégé, who had threatened to quit.

"What's this I hear?" asked Mr. Ford when the prodigal came to his office. Into his ear was poured, forthwith, a story of homesick yearning for the far-away sister that would have done credit to an expert. Mr. Ford listened patiently. "See here, Bill," he said then, "you have no idea of going to Connecticut. You want to quit so that you can be a plain shiftless tramp."

The ex-hobo studied the carpet.

"Yes, that was it," he admitted. "A factory is no place for me; I'm lazy. I've lived the old life so long that I like it."

"All right," said Mr. Ford, "You can quit. I've told them not to bother with you any longer. But remember one thing, I am not going to let you slip back into your old ways. I'm going to employ a man to follow you everywhere you go and watch everything you do. If you ever feel sorry for the way you have treated me you can come back to your old place, provided you are willing to work. Until you do I am going to watch you every minute. Perhaps you will decide to brace up and be a man."

"Gosh," said the surprised man. "If you are going to do that I might as well give in right now."

This ex-tramp is now a faithful worker. Again the theory succeeded.

The next five years will witness the most important readjustment period in our national history. It will be a time when capital and labor must throw off their shackles and meet on a middle ground of consideration, each recognizing the rights of the other. Organized labor will have to make great concessions. Capital will have to make even greater concessions. Neither group can strangle the other if the principles for which our boys fought and died are to survive. Is it right that the soldiers who fought to save this country be assailed by food profiteers, by rent pirates, by selfish capitalists and dictated to by labor organizations? What is to be the ideal solution? Will practical education be incorporated into the new order of American industry? Is real Americanism to be the foundation stone of the nation, or will the

(Continued on Page 13)

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Uncle Rube Spinach Says:

WHAT "THEY" SAY

SAY! Do you know that 'bout the biggest family of busy body's this world has ever known is "They," an' what "They" say, an' what "They" think, causes us human bein's more misery an' more troubles than most any other thing on earth. What "They" will say or what "They" will think, sometimes—not often—makes people do good deeds, not 'cause its in 'em partic'larly to do it, but 'cause they are afear'd of the "They" family an' what they'd think. An' on the other hand the same bunch of "They's" keep us from doin' the things we know to be right. If we have done wrong—have gone the fast pace an' wish to turn about an' go right—if we would like to go to church or do good deeds, would like to help our fellows an' try an' be somebody, we are quite often held back by the fear of what "They" would say if we suddenly changed our ways an' tried to make good.

What "They" would say has separated many families an' has kept families apart when they wanted to get back together again. The fear of what "They" would say has kept young couples from gettin' married an' has caused marriages where none should have occurred. The "They" bunch, an invisible group of nothing, is the foundation of nine or ten tenths of all the good an' all the evil that has ever come into our lives.

The fear of what "They" would say has made thieves of honest men—men who on account of this fear have tried to live way beyond their means to keep up appearances; an' has caused thieves to become honest—not often the latter case, but many of the first. The fear of what "They" would say has kept many preachers from preachin' the Gospel as God would have 'em preach it. It has kept men from tellin' the truth; has made liars of otherwise honest men; has kept women from goin' wrong an' saved men from temptation. What "They" would say has more to do with the runnin' of our government than almost any other thing I know.

There ain't hardly a thing we can think of but what "They" take an important part. I know of families

that have been seprated for some time—mabbe through drink, mabbe jealousy, mabbe something else—any way the cause has been removed, but yet they are kept apart on 'count of what "They" would say if the families should be reunited.

Men an' women have been sent to prison—or have escaped just punishment, because the judge an' jury wuz afraid of what "They" would say if things went diff'rent. Ah, the "They" family sure is numerous as the sands of the sea an' jest 'bout as treach'rous. "They" smile at us to-day and curse us tomorrow. We are all, slaves of the family known as "They." An' really now, who an' what is this—Well—who are "They?" "They" are just an imaginary thing—a nothing, 'cept what we, in our ignorance, conjure up in our own mind. What "They" say 'bout us, what "They" do, makes no real difference to us—can not change our lives only as we let this bogey-man sway us.

What "They" say makes no difference to me—my life is my own—mine to live as I think best. Your life belongs to you—"They" cannot make nor break you, nor I. If we do a wrong thing "They" don't have to tell us—our own conscience tells us an' yet "They" are the things we fear more than most anything else in all the world.

Let us forget all about the little thing called "They." Let's jest be our own self, doing the best we know how. If we are seprated from those we love an' are bein' kept apart on account of what "They" might say, let us be good forgetters. Let's forget there is any such thing as a "They" family an' jest get together on our own account—let us be ourself regardless—kiss an' make up. Make things right between us. "They" are small pumpkins compared to real happiness an' what "They" say can't make a bit of difference if we jest for get that any such thing as a "They" family exists.

What "They" say an' what "They" think, makes no partic'lar difference to me if I really think I'm right, an' if "They" or any of the "They" relation are keepin' you from happiness jest forget the whole tribe an' be happy in spite of 'em. Cordially yours, UNCLE RUBE.

FARM MECHANICS

THE SLUMP TEST

DO you know that the Slump Test is the simplest and most practical way of determining the proper amount of water to use in mixing concrete?

The correct cement-water ratio for any concrete mixture will develop the maximum strength of the concrete. A knowledge of how to determine this ratio is a matter of importance to the builder.

The slump test is a simple, easy, and practical method of making this determination. The only apparatus necessary is a special mould, made from sheet metal, preferably non-corrosive, in the form of a frustum of a cone 4 inches in diameter at the top, 8 inches in diameter at the bottom, and 12 inches in vertical height.

After thorough mixing the concrete is placed in the mould in three or four successive layers, each layer carefully puddled or rammed with a blunt-pointed 5-8-inch round rod. The metal mould is then removed with a steady, vertical lift, leaving the concrete free to spread at the base. The "slump," or reduction in vertical height of the pile of concrete which results, is an indication of the consistency of the mixture.

The consistency which produces concrete of maximum strength is known as a "normal" mixture, and has a slump of about one inch. A reduction in the amount of water of 10 per cent below that required for a normal mixture will change the slump to only one-half inch, and decrease the strength of the concrete about 30 per cent. Increasing the water 10 per cent above normal will increase the slump to about 1 1/2 inches, and a loss of at least 15 per

result in a slump of almost three cent in strength.

A portion of the strength of the concrete must sometimes be sacrificed in order to obtain the plasticity of mixture required by the manufacturing processes employed. For payments, floors and large foundations, the slump should not exceed 3 inches. For thin, reinforced concrete walls where smoothness is required but compacting is difficult, a mixture with a slump of 6 or 7 inches is permissible because its wet consistency practically eliminates the necessity of tamping. Remember: Do not make your mixture more plastic than is required by the nature of your work.

POWER FROM STREAM TO RUN GENERATOR

I have a stream of water five inches in diameter, that flows continually year around on my farm from three springs, with a fall of twenty feet (overhead). Is it possible to obtain enough power from it to run a 32 volt generator to store up current in fifteen cell battery? If so, by what mechanical means would be least expensive to construct, overhead wheel or turbine type?—F. X. D., Grand Traverse County, Mich.

I have calculated that the theoretical power of a 5 inch stream falling 20 feet would be three-quarter of a horse power on the assumption that the rate of flow of water through the pipe is 100 feet per minute. Considering that there would be a considerable loss of power through friction on the water wheel or turbine and some loss of power also on the generator, it is not prob-

(Continued on Page 19)

VISIONING OUR TASK

A SERMON BY REV. DAVID F. WARNER

INTRODUCING DAVID F. WARNER

THE first appearance of a sermon in the columns of The Business Farmer, is our answer to readers, like C. S. of Oscoda, whose letter was printed on page 16 (392) of the March 17th issue. When we searched for a minister who would fill our needs; a man who believed in his Bible, his fellowmen and who lived among and knew the problems of the farmer and his family; a man who, above all, would be a non-sectarian, we found him in the person of Reverend David F. Warner, whose photograph, with Mrs. Warner in the center of page 5, will tell you what kind of folks they are. I hope you will like the Warners, as well as I know they are going to like you!—Editor.

TEXT: Where there is no vision, the people cast off restraint.—Prov. 29:18.

VISION caused Moses to give his life to the freeing of the Israelites from Egypt. Vision made Lincoln declare if he ever got a chance he would strike slavery in America and strike it hard! And, lo! the "Emancipation Proclamation." Vision led Woodrow Wilson to issue a pronouncement for universal freedom from the bondage of war. (No, not yet. How depraved our politics and diplomacy!). And vision will move Christian forces out to make men like Christ and the kingdoms of men to become the Kingdom of Christ.

Reader, listen! Isn't the world in appalling need of real brotherhood; of a fellowship of kindness; of a community spirit of love and sympathy? Hasn't the recent war with its aftermath emphasized this need? Hasn't it created for the church a spiritual crisis? You know that it has! And it has made for us a problem to solve so stupendous in its magnitude as to well tax our faith to its limits. But the Christianity of vision is the Christianity that is prepared to match its faith by its works. To-day we hold the key to the new epoch of tomorrow; and that epoch, if we will, will be a brighter and more glorious one. The church is mistress of that key.

We have faith that the Business Farmer has a clear vision of its task. Our paper's slogan "Hew to the line, let the chips fall where they may," is a good index. The editorials are fitting and ornamenting this rallying cry. And, I take it, these sermons should line up also. To make the printed page warm with the urge and challenge of the higher life, is not easy. This is no sinecure. But the time seems auspicious, and we shall start expecting happy results.

But indulge me a word about preaching. Don't you think sermons and theology are given a disproportionate honor and emphasis? Isn't the pulpit too far from the pew? Aren't they both too far from the unregenerate? I believe, myself, that preaching, polemics, dogma—all are out of all proportion to the time we give to vital religion. As for theology, that is definition. But as for religion, that is life. Jesus placed his emphasis upon life, character, conduct; upon doing righteousness. Since early Christianity men have been fighting over theology, and are as I write. Pathetic, isn't it? But now, let us understand one another at the outset. Let us vision our task to be in agreement with our Master and emphasize religion on conduct. We come to easy agreement here, don't we?

So we are called, not to dissension or destruction, but to harmony and construction. Not to criticism, but to Christian evangelism. What is that? Evangelism is Christianity at work regenerating society. The work is exacting. It means a constant drain upon your strength; a losing of your life. It is not enuf to make a cross upon your heart. You must set up the Cross in your life. It takes a crucified man to promote a crucified Christ. This man is constantly radiating the virtues of the Christ. This is constructive living. This is progress. Any man who is not in sympathy with this onward, upward, society-saving movement is surfeiting and polluting the stream of progress for the aspiring folks about him. "Live fish swim up stream." I felt we should understand one another from the beginning.

But you say, I am a Methodist, a

Baptist, or a Presbyterian, and the dogmas of my church are my truth-containers. Yet another said: "I (personally) am the truth." He also said: "Ye are the light (truth)." So we can agree after all that our common task is to translate literal truth into living truth; into personality. This is religion. This incarnate Truth is to cover the earth as the waters cover the sea. Just this gave us a restless Paul and filled his heart with a pure and ardent passion. It was that pulse-beating of life that gave the world a Justin Martyr, a John Huss, a Wesley, a Luther, a Judson, a Stover, and other bright lights in the spiritual firm-

ament. It is giving us such moderns as Jno. R. Mott and Sherwood Eddy. And it will make you a soul of power and blessing in your community.

But, once more, what is our task? Ask the friendless and the needy; the lonesome and the suffering; and the many that have been stricken by the demons of liquor and war and industrial oppression. Ah, the world is yet a caldron of hate. Her soul is groaning under severest travail. And your church and mine must overcome the racial hatreds and the social misery which have become intensified and embittered by this woe-ful condition. Thru the extension of Christian ministries we must appease the spirit that is crying out for greed and revenge. We have urgent need to set up the fellowship of reconciliation in the midst of the nations. And doesn't it look as tho our biggest assignment is to spiritualize our own? And we are not going to let pettiness over ecclesiastical differences kill the ennobling spirit which we must bring to this need. Now, we are getting better acquainted with our common task, I am sure.

So, dear friends, sermons alone as a regenerating agency have been weighed in history's balances and found socially wanting. There is but one solution. Jesus injected that solution into a selected twelve and said "Go." Have you made your "mustard-seed" beginning? Then leaven your community. He said it was a leavening, a personal

contact process. Think of that when you inoculate your soil for that alfalfa crop. If you believe that Christ is the hope of the world; if you are inoculated with that belief; live it out in your community and you shall witness a consequent luxurious crop in community righteousness.

In the business world the cry is "What can you do?" That measures your worth. In the religious world in that newer, brighter day, it will be, similarly, "What are you doing for others?" That will measure your moral worth. But that must be our measure now. The standard of Christ is "My father worketh hitherto and I work." Heaven's test is "Each man's work shall be made manifest." Would you rest from your labors? Then your works (character worth) must follow you into that earthless, timeless realm.

So our task, as we see it together, will be to build and transmit moral worth, character, life. This, we may be sure, is Christianity. Tho, forsooth, in attempting it we can not hope to satisfy every dogmatic demand of a divided "churchianity."

To estimate the number of bushels of grain in a bin, multiply the number of feet of the inside length by the number of feet of the width of the bin, then multiply the product by the number of feet of the average depth of the grain. This gives the cubic feet, multiplied by fourfifths, gives the number of bushels.

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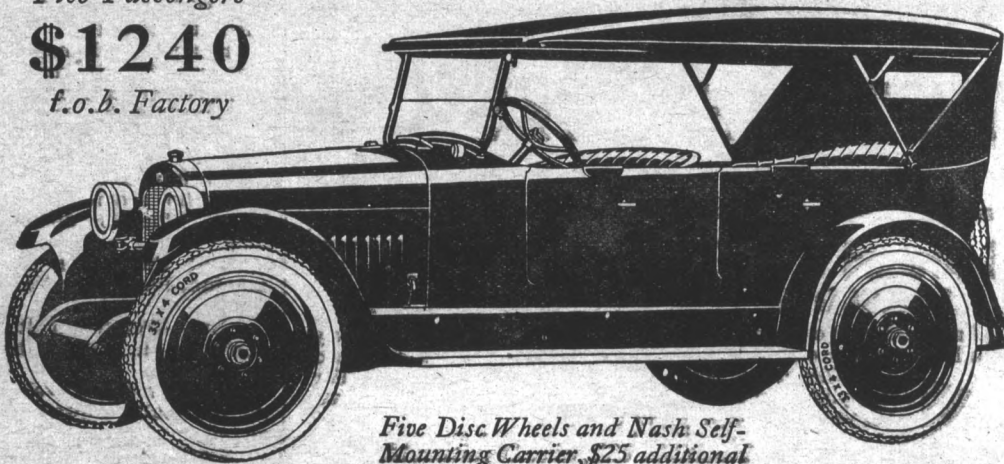
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Did you ever stop to think how many revolutions the wheel of a windmill makes? If the wheel of an Aermotor should roll along the surface of the ground at the same speed that it makes when pumping water it would encircle the world in 90 days, or would go four times around in a year. It would travel on an average 275 miles per day or about 30 miles per hour for 9 hours each day. An automobile which keeps up that pace day after day needs a thorough oiling at least once a week. Isn't it marvelous, then, that a windmill has been made which will go 50 times as long as the best automobile with one oiling?

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The Hunted Woman

By James Oliver Curwood

Michigan's Own and America's Formost Author of the Great Northwest

Copyright by James Oliver Curwood

(Continued from March 31 issue)

"THERE—I've got the lantern!" exclaimed Blackton. "There isn't any danger, not a bit. Wait a minute and I'll tell you about it." He lighted the lantern, and the glow of it Joanne's and Peggy's faces were white and startled. "Why, bless my soul, I didn't mean to frighten you!" he cried. "I was just telling facts. See, we're standing on a solid floor—four feet of packed rock and cement. The dynamite and black powder are under that. We're in a chamber—a cave—an artificial cavern. It's forty feet deep, twenty wide, and about seven high."

He held the lantern even with his shoulders and walked deeper into the cavern as he spoke. The others followed. They passed a keg on which was a half-burned candle. Close to the keg was an empty box. Beyond these things the cavern was empty.

"I thought it was full of powder and dynamite," apologized Peggy.

"You see, it's like this," Blackton began. "We put the powder and dynamite down there, and pack it over solid with rock and cement. It we didn't leave this big air chamber above it there would be only one explosion, and probably two thirds of the explosive would not fire, and would be lost. This chamber corrects that. You heard a dozen explosions last night, and you'll hear a dozen this afternoon, and the biggest explosion is usually the fourth or fifth. A 'coyote' isn't like an ordinary blast or shot. It's a mighty expensive thing, and you see it means a lot of work. Now, if some one were to touch off those explosive at this minute—What's the matter, Peggy? Are you cold? You're shivering!"

"Ye-e-e-s!" chattered Peggy.

Aldous felt Joanne tugging at his hand.

"Let's take Mrs. Blackton out," she whispered. "I'm—I'm—afraid she'll take cold!"

In spite of himself Aldous could not restrain his laughter until they had got through the tunnel. Out in the sunlight he looked at Joanne, still holding her hand. She withdrew it, looking at him accusingly.

"Lord bless me!" exclaimed Blackton, who seemed to understand at last. "There's no danger—not a bit!"

"But I'd rather look at it from outside, Paul, dear," said Mrs. Blackton.

"But—Peggy—if it went off now you'd be in just as bad shape out here!"

"I don't think we'd be quite so messy, really I don't, dear," she persisted.

"Lord bless me!" he gasped.

"And they'd be able to find something of us," she added.

"Not a button, Peggy!"

"Then I'm going to move, if you please!" And suiting her action to the word Peggy led the way to the buckboard. There she paused and took one of her husband's big hands fondly in both her own. "It's perfectly wonderful, Paul—I'm proud of you!" she said. But, honestly, dear, I can enjoy it so much better at four o'clock this afternoon."

Smiling, Blackton lifted her into the buckboard.

"That's why I wish Paul had been a preacher or something like that, she confided to Joanne as they drove homeward. "I'm growing old just thinking of him working over that horrid dynamite and powder all the time. Every little while some one is blown to nothing."

"I believe," said Joanne, "that I'd like to do something like that if I were a man. I'd want to be a man, not that preachers aren't men, Peggy dear—but I'd want to do things, like blowing up mountains for instance, or finding buried cities, or"—she whispered, very, very softly under her breath—"writing books, John Aldous!"

Only Aldous heard those last words, and Joanne gave a sharp little cry; and when Peggy asked her what the matter was Joanne did not tell her that John Aldous had almost broken her hand on the opposite

side—for Joanne was riding between the two.

"It's lame for life," she said to him half an hour later, when he was bidding her good-bye, preparatory to accompanying Blackton down to the working steel. "And I deserve it for trying to be kind to you. I think some writers of books are—perfectly intolerable!"

"Won't you take a little walk with me right after dinner?" he was asking for the twentieth time.

"I doubt it very, very much."

"Please, Ladygray!"

"I may possibly think about it."

With that she left him, and she did not look back as she and Peggy Blackton went into the house. But as they drove away they saw two faces at the window that overlooked the townward road, and two hands were waving good-bye. Both could not be Peggy Blackton's hands.

"Joanne and I are going for a walk this afternoon, Blackton," said Aldous, "and I just want to tell you not to worry if we're not back by four o'clock. Don't wait for us. We may be watching the blow-up from the top of some mountain."

Blackton chuckled.

"Don't blame you," he said. "From an observer's point of view, John, it looks to me as though you were going to have something more than hope to live on pretty soon!"

"I—I hope so."

"And when I was going with Peggy I wouldn't have traded a quiet little walk with her—like this your suggesting—for a front seat look at a blow-up of the whole Rocky Mountain system!"

"And you won't forget to tell Mrs. Blackton that we may not return by four o'clock?"

"I will not. And"—Blackton puffed hard at his pipe—"and, John—the Tete Jaune preacher is our nearest neighbor," he finished.

From then until dinner time John Aldous lived in an atmosphere that was not quite real, but a little like a dream. His hopes and his happiness were at their highest. He knew that Joanne would go walking with him that afternoon, and in spite of his most serious efforts to argue to the contrary he could not keep down the feeling that the event would mean a great deal to him. Almost feverishly he interested himself in Paul Blackton's work. When they returned to the bungalow, a little before noon, he went to his room, shaved himself, and in other ways prepared for dinner.

Joanne and the Blacktons were waiting when he came down.

His first look at Joanne assured him. She was dressed in a soft gray walking-suit. Never had the preparation of a dinner seemed so slow to him, and a dozen times he found himself inwardly swearing at Tom, the Chinese cook. It was one o'clock before they sat down at the table and it was two o'clock when they arose. It was a quarter after two when Joanne and he left the bungalow.

"Shall we wander up on the mountain?" he asked. "It would be fine to look down upon the explosion."

"I have noticed that in some things you are very observant," said Joanne, ignoring his question. "In the matter of curls, for instance, you are unapproachable; in others you are—quite blind, John Aldous!"

"What do you mean?" he asked, bewildered.

"I lost my scarf this morning, and you did not notice it. It is quite an unusual scarf. I bought it in Cairo, and I don't want to have it blown up."

"You mean—"

"Yes. I must have dropped it in the cavern. I had it when we entered."

"Then we'll return for it," he volunteered. "We'll still have plenty of time to climb up the mountain before the explosion."

Twenty minutes later they came to the dark mouth of the tunnel. There was no one in sight, and for a moment Aldous searched for matches in his pocket.

"Wait here," he said. "I won't be gone two minutes."

He entered, and when he came to

the chamber he struck a match. The lantern was on the empty box. He lighted it, and began looking for the scarf. Suddenly he heard a sound. He turned, and saw Joanne standing in the glow of the lantern.

"Can you find it?" she asked.

"I haven't yet."

They bent over the rock floor, and in a moment Joanne gave a little exclamation of pleasure as she caught up the scarf. In that same moment as they straightened and faced each other, John Aldous felt his heart cease beating, and Joanne's face had gone as white as death. The rock-walled chamber was atremble; they heard a sullen, distant roaring, and as Aldous caught Joanne's hand and sprang toward the tunnel the roar grew into a deafening crash, and a gale of wind rushed into their faces, blowing out the lantern, and leaving them in darkness. The mountain seemed crumbling about them, and above the sound of it rang out a wild, despairing cry from Joanne's lips. For there was no longer the brightness of sunshine at the end of the tunnel, but darkness—utter darkness; and through that tunnel, there came a deluge of dust and rock that flung them back into the blackness of the pit, and separated them.

"John—John Aldous!"

"I am here, Joanne! I will light the lantern!"

His groping hands found the lantern. He relighted it, and Joanne crept to his side, her face as white as the face of the dead. He held the lantern above him, and together they stared at where the tunnel had been. A mass of rock met their eyes. The tunnel was choked. And then, slowly, each turned to the other; and each knew that the other understood—for it was Death that whispered about them now in the restless air of the rock-walled tomb, a terrible death and their lips spoke no words as their eyes met in that fearful and silent understanding.

CHAPTER XIX

JOANNE'S white lips spoke first.

"The tunnel is closed!" she whispered.

Her voice was strange. It was not Joanne's voice. It was unreal, terrible, and her eyes were terrible as they looked steadily into his. Aldous could not answer; something had thickened his throat, and his blood ran cold as he stared into Joanne's dead-white face and saw the understanding in her eyes. For a space he could not move, and then, suddenly as it had fallen upon him, the effect of the shock passed away.

He smiled, and put out a hand to her.

"A slide of rock has fallen over the mouth of the tunnel," he said, forcing himself to speak as if it meant little or nothing. "Hold the lantern, Joanne, while I get busy."

"A slide of rock," she repeated after him dumbly.

She took the lantern, her eyes still looking at him in that stricken way and with his naked hands John Aldous set to work. Five minutes and he knew that it was madness to continue. Hands alone could not clear the tunnel. Yet he worked, tearing into the rock and shale like an animal; rolling back small boulders, straining at larger ones until the tendons of his arms seemed ready to snap and his veins to burst. For a few minutes after that he went mad. His muscles cracked, he panted as he fought with the rock until his hands were torn and bleeding, and over and over again there ran through his head Blackton's last words—Four o'clock this afternoon!—Four o'clock this afternoon!

Then he came to what he knew he would reach very soon, a solid wall! Rock and shale and earth were packed as it by battering rams. For a few moments he fought to control himself before facing Joanne. Over him swept the grim realization that his last fight must be for her. He steadied himself, and wiped the dust and grime from his face with his handkerchief. For the last time he swallowed hard. His soul rose within him almost joyously now in the face of his last great fight, and he turned—John Aldous, the superman. There was no trace of fear in his face as he went to her. He was even smiling in that ghostly glow of the lantern.

"It is hard work, Joanne."

She did not seem to hear what he had said. She was looking at his hands. She held the lantern nearer.

"Your hands are bleeding, John!"

It was the first time she had spoken his name like that, and he was thrilled by the calmness of her voice, the untrembling gentleness of her hand as it touched his hand. From his bruised and bleeding flesh she raised her eyes to him, and they were no longer the dumb, horrified eyes he had gazed into fifteen minutes before. In the wonder of it he stood silent, and the moment was weighed with an appalling silence.

It came to them both in that instant—the tick-tick-tick of the watch in his pocket!

Without taking her eyes from his face she asked:

"What time is it, John?"

"Joanne—"

"I am not afraid," she whispered.

"I was afraid this afternoon, but I am not afraid now. What time is it, John?"

"My God—they'll dig us out!" he cried wildly. "Joanne, you don't think they won't dig us out, do you? Why, that's impossible! The slide has covered the wires. They've got to dig us out! There is no danger—none at all. Only it's chilly, and uncomfortable, and I'm afraid you'll take cold!"

"What time is it?" she repeated softly.

For a moment he looked steadily at her, and his heart leaped when he saw that she must believe him, for though her face was as white as an ivory cross she was smiling at him—yes! she was smiling at him in that gray and ghastly death-room of the cavern!

He brought out his watch, and in the lantern glow they looked at it.

"A quarter after three," he said.

"By four o'clock they will be at work—Blackton and twenty men. They will have us out in time for supper."

"A quarter after three," repeated Joanne, and the words came steadily from her lips. "That means—"

He waited.

"We have forty-five minutes in which to live!" she said.

Before he could speak she had thrust the lantern into his hand, and seized his other hand in both her own.

"If there are only forty-five minutes let us not lie to one another," she said, and her voice was very close. "I know why you are doing it, John Aldous. It is for me. You have done a great deal for me in these two days in which one 'can be born, and live, and die.' But in these last minutes I do not want you to act what I know cannot be the truth. You know—and I know. The wires are laid to the battery rock. There is no hope. At four o'clock—we both know what will happen. And I am not afraid."

She heard him choking for speech.

In a moment he said:

"There are other lanterns—Joanne. I saw them when I was looking for the scarf. I will light them."

He found two lanterns hanging against the rock wall. He lighted them, and the half-burned candle.

"It is pleasanter," she said.

She stood in the glow of them when he turned to her, tall, straight, and as beautiful as an angel. Her lips were pale; the last drop of blood had ebbed from her face; but there was something glorious in the poise of her head, and in the wistful gentleness of her mouth and the light in her eyes. And then, slowly, as he stood looking with a face torn in its agony for her, she held out her arms.

(Continued April 28th issue)

THE TRUTH ABOUT HENRY FORD

(Continued from Page 9)

country wait until the evil conditions of today become a menace?

Are Henry Ford's theories and their practical workings during the last five years worth while? Many industries and department stores are putting the interests of their workers above the volume of their profits. They are doing their utmost to benefit their workers, to pay them fair wages and to maintain helpful welfare departments, somewhat similar to the Ford Educational department. There are still some concerns where women and girls are paid wages that are disgraceful and utterly destructive to the morale of the country. Is it right or even necessary? Or is it better to give labor a square deal and to do it on the basis of honest-to-goodness Americanism?

THE END

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RELIABLE ADVERTISERS

We will not knowingly accept the advertising of any person or firm who we do not believe to be thoroughly honest and reliable. Should any reader have any cause for complaint against any advertiser in these columns, the publisher would appreciate an immediate letter bringing all facts to light. In every case when writing say: "I saw your advertisement in The Michigan Business Farmer!" It will guarantee honest dealing.

"The Farm Paper of Service"

THE STATE INCOME TAX.

IT is hardly conceivable that there is any division of opinion among the farmers of Michigan regarding the Byrum bill now before the Michigan legislature, which provides for an immediately effective tax on the income of citizens of the state.

That it will meet with militant opposition from the representatives of the urban centers which it will directly effect is equally as certain.

It would behoove the city dweller to ponder the present situation casually at least, before arriving at too hasty a conclusion regarding the income tax. If he has given any thought whatever to the subject he must realize that the city or town where he resides is largely engaged in taking the products of the farm and making them into salable products for the world's markets. The largest market for the sale of his manufactured product, must always be on the farms of this country.

Property taxes in Michigan, as in other states, has advanced during the past few years to a point where they are actually driving thousands of families off the farms. Forcing them to become competitors in the labor markets and consumers of farm products, where before they were producers.

Any individual can certainly afford to pay a direct tax as low as four per cent on his net income, after exemptions have been made for his dependents. There is not a farmer in Michigan who will not gladly pay his share on the basis of the net income derived from his farm and if the farmer is willing to pay such a tax, why is it not equitable for the city man no matter what his work or his earning.

Thousand of citizens live in flats, apartment houses or hotels and owning no real estate or other property pay no direct state tax whatever for the privilege of enjoying the facilities which the state affords for their well being. The state income tax is as sound in principle as the federal income tax and altho faulty, that law is today an accepted fact.

It is claimed that the vote taken in Michigan on the tax amendment to the state constitution voiced the sentiment of the people but we challenge this statement in view of the voluminous correspondence received by this publication immediately following that voting which proved that the farmers, at least, were not sufficiently acquainted with its purpose to vote intelligently on it. We commend to every reader the action suggested in the statement on page three of this issue.

NATIONAL REVIVAL TESTS COUNTRY CHURCH

ALTHO newspaper heads scream with murder, crime and degradation which seem national in their scope, the United States is being swept with a religious revival which is apparent to all who have observed the growth of the church and church activities during the past eighteen months.

Some lay credit for this national revival to prohibition, some to the natural working of the inevitable law which swings from one extreme to the other, some to the depression and slowing-up which followed in the wake of the war and some to the frightful nearness to death, which the war brought to all who were a part of it or had loved ones in it.

In any event the revival is here and the cities

which have felt the wave of crime most, now boast of crowded churches at all services. The city church too, has taken its rightful place as the center of community life. No longer a place to be sanctified in silence and opened on Sunday only, the modern church is a bee-hive of activity from Monday morning to Sunday night. Young and old are brought under the influence of clean living and the right attitude, (which is after all the whole foundation of Christ's teaching) not only thru meditative study of the Bible, but through play and entertainment. Many city churches now boast gymnasiums, swimming pools, dining rooms and always good libraries.

Has the revival come to the country church? Are the pews filling up again with the old-time standbys or the newcomers? If not, it is not because the cycle of time has not brought this condition to within reach again, but because the country church is not living up to its opportunity to become the center of social life in the community where it exists.

With the coming of the automobile the country church suffered immeasurably. Some country churches have turned the automobile to their advantage, however, by extending the radius of their activity the distance which this more comfortable means of conveyance brought within easy range.

If the cross-roads church no longer has its place, it is because the nearby town or city churches have opened their arms to the neighbors without their gates and perhaps this is only in keeping with the trend of times, with is for consolidation. If the country church still has a place, now during this wave of a nation-wide revival is the time to prove it.

TARIFF VS. INCOME TAX

FINANCIAL circles are said to be in high glee over the possibility that the large returns to the government from the present Fordney tariff, will make it possible to reduce the present income tax rate which is six per cent, to three per cent next year.

Let's see now—

The tariff money comes from the people who buy the ordinary things of life, such as sugar, woollens, coffee, tea, etc., in a much larger proportion than from those who buy the luxuries. It is the family, which in the great measure pays the tax, as indirectly collected by the high tariff wall. That ought to be pretty well understood by now!

From this source then comes the extra money which is going to lower the income tax.

Who pays the income tax? Quite generally the men and women who can afford to pay it, many of whom spend less in the United States than does some struggling family of eight on a northern Michigan forty.

We are inclined to believe that this is a step towards unjust taxation, whether you label it "protective" tariff or not, it comes home to the same point; that those who can least afford to pay a high tax for the privilege of bringing up their families in the United States of America would be asked to pay what their prosperous neighbor could pay without feeling it.

The income tax can be made the most equitable means of raising the necessary money for national government operation. It operates most equitably when applied only to net individual incomes. A real saving to all the people could be effected through abolishing altogether the corporation income tax, because it is only passed along to the people in higher prices for the products of these corporations which they buy.

The corporation income works this way. Two persons, one rich the other poor, each own a share of stock in a corporation. A profit is made. The corporation pays a tax on that income. The tax is taken out of the profit due the poor man in exactly the same measure it is taken out of the rich man.

If no corporation income tax were levied, both stockholders would receive the same income from their individual shares of stock, but each would then pay their tax on this income in relation to the amount of their total income from labor and investments. The poor man would pay little or no tax on his dividend from the cor-

poration, the rich man with returns from many investments would pay a high rate, inasmuch as the return from this one share was only a small part of his total income.

There is much evading and many flaws in the present income tax system, as pointed out, but in comparison to a tax, from high tariffs, it is boon to the mass of American citizens.

THE BRANCH THAT THOUGHT IT WAS A TREE

IT had every right to be proud of itself—this grafted branch. In the blooming season, its flowers were large and the creamy petals red on the edges, while the other blossoms on the tree were small and scraggly and dirty-white.

When Autumn changed the flowers to fruit, the apples on this branch were big, deep-red, with hearts as white as snow.

And the branch, seeing this, was swollen with pride.

"Why should I remain a part of this poor tree. I give more fruit than the rest of the branches combined. I will be a tree unto myself that men may know me and give me credit for my fruits."

The next time a strong wind blew, the branch strained and pulled and twisted and finally tore itself from the tree. The tree died at the wound for a little time, but the gardener came along and grafted another branch in the place. But the branch that tore itself away died very quickly.

It did not realize that the sap—the life-blood that gave it health and strength to produce—came from the roots of the tree. The branch could not see that because the tree had other branches it was able to drink in more sunshine and rain—that all the branches drew life from the soil and air and gave it gladly that the one branch could flourish and produce much fruit.

So the grafted branch, that thought it could be a tree, died. The tree lived on.

The moral of this old fable is that there are a lot of men in every business, or profession, including farming, who consider themselves and their work, so superior to their neighbors in the organization to which they have joined for a common purpose, that they finally break away and end up, whether they know it or not, just where the branch did.

IOWA FARMERS ELEVATORS SUCCEEDED

FROM 1904 to 1922 there were 532 farmer-owned elevators organized in the state of Iowa and during the same period only 51 ceased business. Where in 1904, nineteen years ago there were only 43 elevators in operation, at the close of 1921 there were 511. These facts are obtained from a very interesting bulletin just issued by the agricultural college of that state entitled "Fifty Years of Farmers' Elevators in Iowa".

We republish these figures here because they prove that farmer-owned elevators can be operated successfully and at a profit. There are always plenty of those who like to say "I told you so!", and usually they make the same remark no matter which way the venture goes.

In the state of Michigan many earnest men have tried to solve the marketing problem, which dominates every other in the profitable operation of agriculture in this country. Many of these men have worked night and day, usually without profit to themselves to try and make the co-operative plan a practical and profitable success. We know of this type of men in our state who have actually killed themselves, worrying over the problems of the cooperative elevator.

And yet, when similar figures for the state of Michigan are produced, we believe a record equal, proportionately, to that of Iowa, the home of the cooperative elevator will be shown. We commend the suggestion of a similar summary for early publication by our own agricultural college. It might be a practical tribute to some of these men who are still alive.

THE FLAT DWELLER'S LAMENT

I live in a flat where I hang my hat,
And I don't own a farm or a home.

I earn the fat pay but I'm not the jay,
Who gets tied so I can't ever roam!

Do I give a care, how much taxes rare?
I pocket my salary and smile.

But sometimes I get dizzy for fear they'll get bizz,
An' collect income tax once in a while!

Co-operative marketing and controlled production are economic twins. Neither can be fully efficient alone.

A ten million wheat acreage in the four big spring wheat states will beat an act of Congress a mile as a price raiser.

EFFECTIVE April 2nd, the subscription price of The Business Farmer was reduced to:

One Year, 60c
Two Years, \$1
Five Years, \$2

and new or renewal subscriptions will hereafter be accepted at these rates.

PUBLISHER'S DESK

It is not hard to sound the depth of human emotion and universal sympathy. Under the heading "A SORRY FLIGHT", in our last issue, I told of the experience of a poor cripple who had been taken in by an agent who sold him the formula for an automobile polish, charging him \$20 for it, which was purely a fraud. Our unfortunate neighbor also asked as to our experience with the so-called "Auto Knitters", and I had to advise him that I had never known of one in successful operation, that is, of one that was being continuously operated to produce hosiery on a profitable basis.

In response to this article, I have received a large number of letters offering suggestions. Two of these letters were from cripples who themselves were operating auto-knitters satisfactorily, but, in each case they were buying their own wool, and selling their products in their own locality. In view of these two statements, it may be that a cripple who can afford to spend the necessary time, can operate one of these machines successfully, where a person in normal health could employ his or her time more profitably at some regular occupation.

I can assure you the publisher was highly gratified to find sympathetic response which the mere publication of these facts brought forth from our readers. With this spirit of helpfulness The Business Farmer can live up to its highest ideals.

THE IMP-O-LUCK

Several readers have asked me whether or not they were responsible for the package sent them C. O. D. \$1, by the Imp-O-Luck Company of Spencer, Indiana, and I want to assure them that they are most certainly not responsible for anything which they did not order.

The scheme is not in compliance with Post Office regulations, and we shall bring it to the attention of that department. No company, or individual has a right to send a package which is not ordered, by C. O. D. parcel post, and if you receive a package of this kind from a source which you did not know, do not under any consideration pay the charges. The Imp-O-Luck consists of a cheap Billiken in which can be burned the common incense, which can be purchased in any Five and Ten Cent Store. In their advertising this company claims that to breathe this incense will bring "success." They also sell "Love Cones," which burned in a similar way will, 'tis said set the heart of an old maid or old bachelor aflame with new hopes and desires.

Will some good reader who lives near Paw Paw, Michigan, tell me who W. J. Barnard is, what he does, and how he earns his living. A reader sends me a newspaper clipping referring to statements which he is said to have made before the Allegan County Milk Producers Association, in which he attacked President Friday, county farm agents and farm paper publishers. Generally, I would like to know about this gentleman. Perhaps he is the Moses who has come to lead the agricultural business out of the desert! If so, we wonder what he charges for piloting.

I have been asked about the Railway Educational Association, 227 Monroe Street, Brooklyn, New York, who promised to teach the art of becoming a locomotive fireman, with the assurance that their students will earn from \$200 to \$250 a month, and I want to repeat that there is no other way to test out the merits of a Correspondence School than to ask them for the name of a student in your locality who you can see and talk to, or at least write for their advice.

Most correspondence school schemes depend on the students who start the work and never finish. A student who goes all the way through the course and passes their examination is usually the exception, and costs them more to teach, than they charge for the course. They have to depend on the fellow who drops out, after one or two lessons, and whom they usually force to pay

the entire amount he originally contracted. My advice again is, don't sign up until you know you are going to complete the course.

THE GREEN EGG COMPANY

Has any reader had experience with the Green Egg Company, of St. Louis, Mo., who we understand are soliciting shipments of eggs in Michigan, and regarding whom we cannot secure reports which would lead us to encourage shipments to them. If any of our readers had experience with this company, we would like to hear from them.

HEIR TO MILLIONS

Some of my readers are in high glee! They have been notified by lawyers somewhere that they are far distant relatives of Anneka Jan Bougardus, and therefore are the lawful claimants to part of 163 acres in the very heart of the city of New York, where giant skyscrapers tower heavenward from tiny patches of ground which are therefore worth millions.

Think how you would feel if you were heir to the very heart of the richest city in the world! Would there be any reason why you should not contribute to these lawyers to fight your claim for this property.

Well to make a long story short, we would say that there were several good reasons why we wouldn't offer any heir to this, or any similar estate more than five cents on the million of the legacy that he or she expects to get, and then it would be on gambling spirit, and not our better judgment that was making the speculation.

FAT REDUCERS

Lately we have had several letters from corpulent ladies who are regretting the fact that although they have sent their \$5, \$10 or \$20 for treatment, which ranged all the way from phonograph records to powder they put in their coffee or tea, they have not been able to reduce in weight so they resemble the Venus-like figure shown in circulars!

It is hard to keep a straight face and read some of these letters, because if it is true that "everybody loves a fat man," it must be equally true that the average corpulent lady is usually endowed with two of God's rarest talents, which He can give to womankind: The habit of laughing at trouble and the ability to turn ordinary food stuffs into delectable dishes which hold their men folks. You seldom see a fat lady who is not a good cook. If these fat reducing schemes are going to lessen their cooking ability, God save us!

Seriously it is not necessary for any person to be overly fat. Proper food and proper exercise will bring sure reduction. There is a splendid book on this subject called "Eat and Grow Thin." If any of you fat men and women are interested apply at your nearest library for it.

CLAIM SETTLED IN TEN DAYS

In regard to the claim which you took up for me will say they made a satisfactory adjustment within ten days. The number of claim was 1181. Many thanks to you for the help and you may rest assured I will always be a booster for your paper which I would not be without.

—R. J. R., So. Lyon, Mich.

Book Review

(Books reviewed under this heading may be secured through The Business Farmer, and will be promptly shipped by parcel post on receipt of publisher's price stated.)

THE 50-50 FARM, by Dr. C. L. Wendt—The author has in this 105 page volume covered in full the Wendt Farming agreement, which has been discussed in The Business Farmer and other farm papers during the past year. It is an exposition of the earnest attempt of a student of farm tenantry in America to arrive at an equitable contract which gives both landlord and tenant a square deal. Whether you are in one class or the other this book ought to save you many times its original cost and your effort in studying it. (Manilla Covers, \$1.)

First Mortgage Real Estate Gold Bonds

The general attitude of mind of the American public seems to be to concede Federal first mortgage bonds a place and position all their own as a sound, safe investment.

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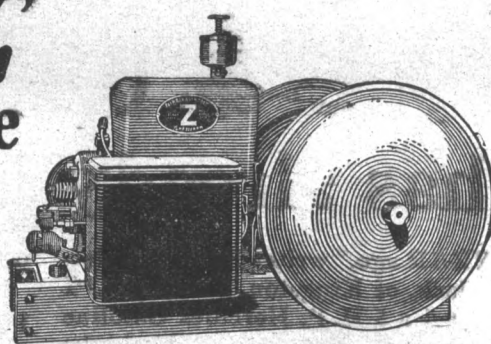
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'Z'
Engine

only \$48

F. O. B.
FACTORY
1½ H. P.
Battery
Equipt



Make more money on your farm

"Time is money" on the farm today. Every farmer knows that he must make every minute count to get the most production and profit out of his place. You can save time—and "time saved is money made"—with a Fairbanks-Morse "Z" Engine.

This famous helper is now at work on more than 350,000 farms. At present remarkably low prices the 1½ H. P. Battery Equipt Model is the cheapest farm help any man can have. It does more work for less money than any other machine or man you can employ. It has been in such great demand all over the country that for many months the factory was unable to build enough of them.

Uses gasoline alone. Has high tension battery ignition, hit-and-miss governor and balanced safety flywheels. Control lever gives six speed changes. Carburetor requires no adjusting. A remarkable value.

The magneto equipt 1½ H. P., 3 H. P., and 6 H. P. are real kerosene engines, but operate equally well on gasoline. Have simple high tension oscillating magneto. Throttling governor assures steady speed. Prices, F. O. B. Factory. Add freight to your town.

1½ H. P. \$71 3 H. P. \$105 6 H. P. \$168
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Write for complete details. See the engines at your dealer's.

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\$10 Puts a Hercules to Work

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My new reduced 1923 prices and easy terms place a Hercules stump puller within reach at lower cost than ever. Hercules is the easiest-operating stump puller ever made. Four machines in one. Moves like a wheelbarrow. No heavy lifting or straining. Handles any stump. One man pulls big stumps easy. Hand or horse power machines. Write for Free Catalog. Send name and address today for full details.

HERCULES MANUFACTURING CO., 350 29th St., Centerville, Iowa

KEEP THE BUSINESS FARMER COMING
SEE PAGE 25

What the Neighbors Say

TOO MUCH CREDIT

I AM writing these lines in hopes some of the readers will see what credit, credit and more credit can and does do for the majority of small farmers. I know all this from experience, but, thank goodness, I have profited by a most expensive lesson. Credit was the name and about \$1,500 the cost.

When I first came to this state to start farming I had no money to buy for cash, so I, like most all farmers are doing today, started going to sales. My banker said my credit was good. It was, too. I bought what I needed to farm with. Then he told me "Here's a good buy" and "There's a good buy." Oh, yes, he was very accomodating then (and is to everybody now till he get them to buying).

The first year I paid all my notes. That fall I bought more cows. The second year crops were not extra good so I paid every cent I had and still had to renew some. High interest had to come in advance so I had to make a note, due in the spring, for interest. In the winter I had sickness and was not able to pay the interest. I got word that the sheriff would be my next visitor. I went to a lawyer. He said the bank could not foreclose on an advance interest note which was an unlawful note to start with. This proved so. Then by selling all the young stock I had I paid off the interest and some on the principal. But the banker tore up the note instead of stamping it paid and giving it to me. Then the third year my crop drowned out.

I could pay nothing. I was told to have an auction sale, which I would have been forced to do if I had not had a friend of true blue. He helped me out, and seen to it that my notes were made out at 7 percent interest and no interest in advance and I will always keep them that way. For if I can't do business with one that will do it lawfully, I will go without. Since I have started on this system I am getting ahead instead of sinking with excessive interest as a dead weight.

I am not the only one that was so foolish, for literally speaking the majority of this country belongs to the bank as I once did.

Why is it the law makers are forever thinking up some law to punish the small offender, and never make a law that would take care of bolder and much greater offenders. Many of the small country bankers can put on a white collar and tie, get behind their cage and rob every one that comes that way—they call it a bonus. If the people won't be robbed peacefully, they are told to have an auction sale. Oh, yes, then they are a big man. It certainly would be the work of providence if all the small banks could be—well, just put out of business. I hope many of the readers will see what credit will do, and will profit by another's experience.—P. B., Gladwin County, Mich.

MORE ABOUT TAXES

NOTICE in the February "Review of Reviews" Dr. Friday's computations show that "the farmers were paying 26 percent of all the

taxes in the year 1913-14 and 18 percent in 1921-22. Putting it somewhat different the farmer shouldered \$774,000,000 out of a total of \$5,362,000,000. He had been paying one fourth of all the taxes before the war, but he assumed only one seventh of the additional burden which has been laid upon the public." He also computes that the farmers only assumed slightly over one ninth of the increase of the direct taxes. This information should be a great comfort to the farmers, no doubt they will now be able to meet this small proportion of the taxes with no inconvenience.

Wonder if the Doctor will find that the dairymen are not carrying their just burden in supplying milk for the City of Detroit.

In discussion of taxes, Dr. Friday might have brought out the fact that property assessment is computed generally from the income of the property. But this rule does not apply to farm property. I do not think that farmers would ask that this rule be strictly adhered to, as they would have paid no taxes the past two years on that basis. But the rule should not be ignored.—Howard Smith, Saginaw County.

BAD CASE OF "CARNIVALITIS"

AT one of our Northern Michigan fairs we have developed one of the worst cases of "carnivalitis" that you ever saw for a fair its size. From every known form of gambling, dancing girls, gypsy fortune tellers, and all are there in fine form (???)

I never could see the advantage of inviting other horses in to run away with fat purses when the local interest is twice as great in local horses at one fourth of the money

needed to induce outside horses to race.

After a recent fair I overheard a conversation between two little boys. They were joshing each other about seeing one of the tent attractions reserved for men, and from what I gathered neither was very proud of having seen that particular "show."

I hear some one person say, "O pshaw, they must bump into such things sooner or later." But I think most mothers would rather it would be later.

To me it seems to be the most unfair thing to have a fair like this when we have such wonderful agricultural resources with which we could have such a good fair. Personally, I know of a number of farmers that will have nothing to do with a fair of this kind that would enter heart and soul in the right kind of a fair.

What is more stimulating than a friendly rivalry as to who can raise and exhibit the best potatoes, corn or fruit and what is more interesting and instructive than a good livestock exhibit, besides see the opportunities for advertising one's particular specialty.

I am sure from the comments heard on all sides that the farmers prefer an agricultural fair to a carnival every time. Let the State Fair have their carnivals if they want to but I hope to see the day when our own particular fair will have all such objectionable features eliminated.—Mrs. E. J. C., Alpena County, Michigan.

THE FARMER AND HIS TROUBLES

THE farmer is receiving his full share of adverse criticism and free advice as usual. I read an article in a farm paper recently which implied that the farmer is better off than he thinks he is. It enumerated a long list of things which a farmer with intelligence and gumption, "should do when times are hard and work slack (as if work on a farm ever was slack) such as grubbing stumps, cutting fence posts, breeding better cattle, culling poultry, repairing buildings, raking the yard, making flower beds and being more civil.

It also said that with proper management the farmer can always have fine potatoes, choicest beef and pork (fresh), fried chicken or chicken-pie when his fancy dictates. Eggs without number, cream and the finest of fruit and vegetables. No mention was made of the work necessary to produce all these or their worth in the market.

I quite agree that it requires gumption and intelligence to manage a farm properly and profitably. One can't be on the job today and off tomorrow. I also maintain that the majority of farmers possess the necessary qualifications.

Also there is no business in which man invests so much, runs so great a risk on his investment, works so hard to make it pay and where the outcome is so uncertain. He may prepare the ground for seed, plant, or sow the best, cultivate and hoe, but if weather conditions are unfavorable, he loses.

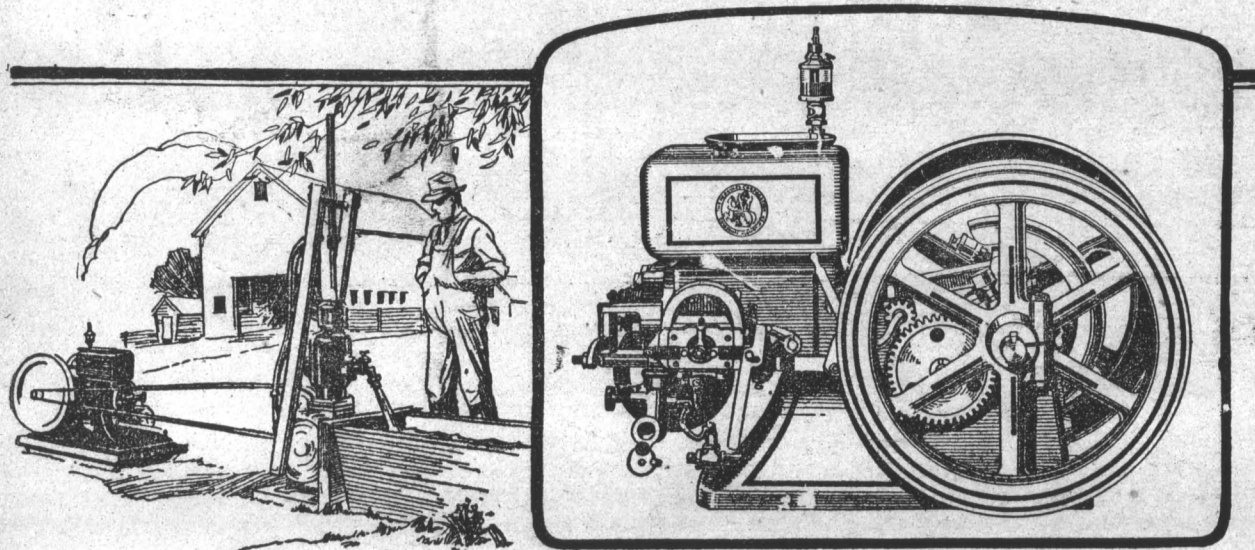
The crop may grow and flourish and a wet harvest ruin or hamper. Also there is the fly for the wheat, smut for all grains, bugs and blight for potatoes, anthroenose for beans, and WEEDS for all.

The garden where all those wonderful fruits and vegetables are produced does not, like Jonah's gourd, spring up in a night, but is the result of constant and patient labor with the hoe and rake, in the cool hours of morning and late evening, by each member of the family in turn. And many more hours before those same delicious things stand in shinning jars on the shelf.

The city woman can go to the early morning markets and buy in quantity from trucks at a reasonable price and all the same kind of jars with equally delicious fruits and vegetables if she possesses the same brand of gumption and intelligence as the farmer's wife.

As for meats, she also has the privilege of going to the market, buying in quantity, curing and canning as cheaply as the farmer's wife. We often do this rather than dress at home as it costs no more, after counting pounds an animal dresses away and cost of dressing.

As for fried chicken and chicken pies, we never grow them that way.



"It has already paid for itself"

"A YEAR ago," writes Benjamin Gerlack, of Kingston, New York, "I purchased a 5 H. P. Hercules Gasoline Engine, thinking that it would help the hired man and me about the barn and farm.

"It has done more than that. It has saved me the wages of one man, besides making the work easier for all of us. It has already paid for itself. . . . I call it my partner."

The Hercules is a partner that does more than its share of the work without asking a share in the profits. And its work is the hard work, the back-breaking, uninteresting work. It saws the wood, pumps the water, runs the dairy, the washing machine, the feed grinder, the machine shop—the jobs that no one else wants to do. And it

does them faithfully the year 'round.

On your farm there is work for the Hercules. There is a Hercules designed to do that work so efficiently, so much better and more quickly and at such a saving that, like Mr. Gerlack, in a short time you can say, "It has paid for itself."

Hercules Engines range in size from 1½ H.P. to 12 H.P.—both gasoline and kerosene types. They are equipped with the latest type of magneto—one that keeps the engine at work out-of-doors in any conditions of weather.

There should be a Hercules dealer near you. If there is not, write us and let us advise you about the ideal power for your farm—the size and type of engine that will best suit your requirements.

THE HERCULES CORPORATION

Engine Division

Evansville, Ind.

HERCULES ENGINES

It takes our eggs 3 weeks to hatch out fluffy balls that must be kept warm and well fed for many weeks before they are large enough to dress and fry. We usually use one dozen to 15 from August 15 to Nov. 30. Then cull out old hens and undesirable pullets and sell them. Also all except a few choice roosters to sell for breeding. This leaves a flock of the desired number and my fancy never dictates killing a laying hen.

The endless number of tasks Mr. B. would have us do when times are hard, have always been part of our yearly routine. The lawn, back and front is always raked in spring and mowed as long as grass grows. There are flowers in the flower-graden from spring's first kisses until snow flies.

Stumps are unknown, the wood lot is quite diminished and coal a necessity.

The farmer must work and fight against odds continually. He has crop failures, loss of stock, low prices, sickness, taxes and interest and "hard times" is often the knock-out blow. He earns every cent he gets but he does not get every cent he earns by any means.

It requires the same gumption and intelligence to live and learn in any walk of life, and the farmer is no better off than he thinks he is. He knows his needs and his limitations.

The foolish farmer, so they say,
Grumbles louder ev'ry day;
Tho' sixteen hours of daily toil
No man's temper ought to spoil.
'Tis only "gumption" that he needs,
To create a zest for feeds
Of richest viands with dearth
With no thot of what they're worth.

The envied farmer is, they say,
Growing richer day by day.
This hard time talk is just a bluff.
He is farming well enough.
Six hours of chores are only fun
Quite forgotten soon as done.
'Tis finer sport to pitch manure,
Aching back to thus insure.

The fabled farmer must, they say,
Show his mettle all the way—
Plowing, rolling, discing, dragging,
Countless miles, never lagging;
Sowing, planting, using hoe,
For the weeds begin to grow;
Not for a moment dare he rest
Since with 'tater bugs he's blest.

Lucky farmer, if he but knew,
Is much better off than you,
When times are hard and spirits low,
Still his "gumption" make him go.
Stumps to grub and yard to rake,
Flower beds for wifie's sake,
Cows to breed and his poultry cull,
Times for him can not be dull.

Greedy farmer, your sumptuous fare
Comes like manna from the air;
Choicest beef and juiciest pork,
Chickens fried and with no work,
Scores of eggs, oodles of cream—
Sounds like a fanciful dream.
Tax forgotten, int'rest unpaid,
Annual payment no yet made—
Hurrah for the farmer! Lucky guy!
Who cares a fig? Not I.
—Bessie O. Roberts, Saginaw Co.

CHANGING TIMES

By JOHN T. BARTLETT

A GREAT FUTURE FOR HONEY

EVEN most young folks, and certainly very readily older ones, can recall the day when honey meant just one product—comb honey. The general introduction of strained or extracted honey, only a comparatively few years ago, was an event the economic importance of which was little guessed at the time. It gave seven league boots to the beekeeping industry. Before comb had been a commodity not easily shipped and handled. Now, honey could be put in glass jars and pails. It was readily shipped, readily displayed by the dealer, readily kept in the home. An enormous increase in production and consumption followed.

The advance of honey has just begun. Low prices contended with the past two years are "growing pains," met with in the expansion of any industry.

Here are straws which prove a great future.

The public is being educated to larger purchases. Hundreds of retailers the present year have picked honey to use for price specials, selling at nearly cost. Most of them

have priced 10 pound pails, many 60 pound pails, as well as smaller sizes. Many families have been educated to buy the larger sizes, most economically and certain to encourage greater use.

There are new honey products of great possibilities. A live Pacific Northwest beekeeper packages and distributes granulated honey. This makes a great spread for bread, and, besides secures an economy in container cost. "Honey-nut" butter, under this name or others, is being regularly retailed in various places. It is a simple combination of honey and peanut butter. It makes a splendid filling for candies. Its much wider use is as a spread supplanting peanut butter. When one realizes how enormous is the peanut butter traffic, it is easy to glimpse the expanded market for honey being sold on an increasing scale. Watch honey consumption increase.

NEW IDEAS IN CONTAINERS

MAKING a container which the producer can pack, and which as packed can go through to the consumer unbroken; half bushel baskets are in limited use in a considerable number of shipping districts. Their use will probably grow.

A Michigan fruitgrower has invented a bushel basket with a detachable bottom. It is packed upside down. The top, that is, is put on, the basket inverted, the bottom removed, and the basket packed.

Then the bottom is put on. Time is saved in packing, less skill is required, and when the retailer removes the top for display, the top apples are uninjured.

Onions and other products now go to market from the South and some other sections in fibre boxes. A nifty package! The shipper put his advertisement on the box.

Things are happening fast these days in the field of fruit and vegetable containers. The use of bushel baskets for apples and other fruits and vegetables has had astonishing growth. It is now the commonest package in some districts which, four years ago, had hardly seen a basket used for apple shipment.

Several points have established the basket in use. First, it is economical. Nested, it is readily shipped from factory to country shipper, and readily stored prior to use. Numerous efficient ways of tiering baskets in cars have been originated. Retailers like baskets for display purposes; something about the rounded effect is very appealing to customers. With its handles, the basket is very conveniently handled—all along the route from producer to consumer. Improved methods of manufacture have made the modern basket light, yet strong.

Finally, the bushel basket is of a size adapted to modern conditions. Retailers like to buy in bushel units; the unit suits consumers.

More than any other thing one

condition gave the bushel basket its initial foothold in many localities—its low cost. When apple barrels reached over \$1.50 in the East, combined with the low market prices for apples, there was a landslide to the basket. In boxed territory, the basket is much used for the lower grades.

MIDWAY UNNECESSARY

IN answer to your recent query: "Is the Midway Necessary to Support Our Fairs?" I am expressing my views. To my mind the midway is both vulgar and unnecessary. It awakens the gambling spirit and caters to the morbid and curious. I have seen with disgust the hardboiled proprietors of games of chance rake in the children's hard-earned coins with brawling and unconcerned manner.

A fair should be free from vulgar and grotesque carnival features, and instead, foster a keen and honest spirit of worthy competition in all lines. It should encourage the young generation to higher ideals, not lower. It is not desirable to deprive the youngsters of all wholesome amusements at a fair, so by all means let us retain a clean and first class free grandstand show, and the ferris wheel, whip and frolic, they all have their places. A good movie, musical treats or even a public dance pavilion, conducted by proper officials would be a vast improvement instead of the now prevailing and undesirable Midway.—J. J. G., Akron, Mich.

McCormick-Deering 15-30 Tractor Offers You Power Based on Five Construction Principles

1. Sturdy Unit Main Frame—

Extends the entire length of the tractor; its shape and design make it an unfailing foundation for the working parts. No twisting nor yielding. Permits the entire tractor to be built with greater precision, which reduces wear and vibration.

2. Ball and Roller Bearings at 28 Points—

The power of the sturdy McCormick-Deering engine is carried without unnecessary loss through smooth-running ball and roller bearings to the drive wheels or belt pulley—steady, dependable power, at your command through long years of service.

3. Unit Construction—Easily Accessible—

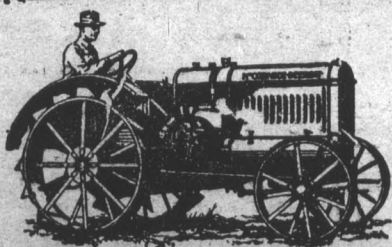
Every important part [engine, transmission, steering assembly, etc.] of the McCormick-Deering 15-30 is built and tested as a separate unit, then bolted securely into place in the rigid main frame. Easily removed and repaired in the field or shop. No unnecessary delay and expense.

4. Ball-Bearing Engine—

The crankshaft has two heavy-duty ball bearings. This design minimizes friction and shaft breakage—a feature years ahead of general practice. All wearing parts are replaceable, including the cylinder walls. There should be no limit to the life of this engine.

5. Operator Comfort, Convenience and Safety—

Assured by the roomy platform, wide fenders, adjustable seat and foot levers, minimum vibration, well-balanced weight, adjustable drawbar, throttle governor and Alemite lubricating system. All gears and important bearings are enclosed and run in an oil bath. No moving parts exposed.



Every farm power user should know this modern farm tractor. If you will go to the store of the nearby McCormick-Deering Dealer he will point out the many exclusive features that place the McCormick-Deering 15-30 ahead of the field.

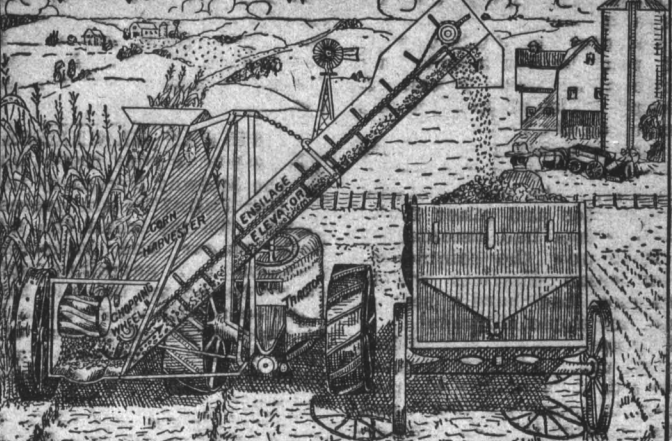
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Mrs. Hurst has nothing to sell. Merely mail your own name and address, and she will gladly send you this valuable information entirely free. Write her at once before you forget.

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MARYLAND HAS—

321 days of sunshine every year. 185 growing days—45 inches of rainfall. Maryland is a land of Good Farms—Good Roads—Good Schools—Good Homes—Good People. Maryland is one of the garden spots of the world.

Farming pays in Maryland and good farm land is still available at reasonable prices. Our catalog of farms and country estates will interest you. Sent free. Address: Dept. G, CHAS. H. STEFFEY, Inc., 338 N. Charles Street, Baltimore, Md.

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Chesaning, Michigan.

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KENTUCKY TOBACCO—BEST OBTAINABLE
2-year-old leaf. Free flavoring and directions. Pay for tobacco and postage when received. Chewing 10 lbs. \$3.25; smoking 10 lbs. \$2.75. **OLD HOMESPUN CO.,** Hawesville, Ky.

HOMESPUN TOBACCO. CHEWING 5 pounds \$1.75; 10 pounds \$3.00; 20 pounds \$5.25. Smoking 5 pounds \$1.25; 10 pounds \$2.00; 20 pounds \$3.50. Send no money, pay when received. CO-OPERATIVE TOBACCO GROWERS, Paducah, Kentucky.

NATURAL LEAF TOBACCO. CHEWING 5 pounds \$1.75; 10 pounds \$3.00. Smoking 5 pounds \$1.25; 10 pounds \$2.00. Send no money, pay when received. TOBACCO GROWERS' UNION, Paducah, Ky.

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Any Assembly

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WHEN ORDERING GIVE MAKE OF CAR AND YEAR MADE. A \$5.00 DEPOSIT MUST ACCOMPANY ALL ORDERS. ALL BATTERIES SHIPPED EXPRESS C.O.D. SUBJECT TO INSPECTION. A \$1.00 DISCOUNT WILL BE ALLOWED IF THIS ADVERTISEMENT IS RETURNED WITH ORDER.

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Apples—Peaches and Other Fruits

It is now acknowledged by the best horticultural authorities in the United States that early Spring applications of

Nitrate of Soda

5 pounds to 10 pounds per tree according to age and condition produce great improvement in tree growth, quantity and quality of fruit.

Ask your neighbor who has used it, your experiment station or Farm Bureau or write for my free Bulletin Service to supply you with the best information on Orchard Fertilization.

Dr. William S. Myers, Director
Chilean Nitrate Committee
25 Madison Avenue, New York

CONCORD 1-Yr. OLD, Heavily Rooted 3 GRAPE VINES Only 25c POSTPAID!

Selected small-size vines from the Michigan Grape Belt where the finest Concord vines in the world are grown. Hardy, healthy, bushy vines, bred up to yield a BUSHFUL of the finest Concord from EVERY vine! Three vines planted in your garden will make a vigorous start. Of rapid growth, they will soon amply supply your table. They will grow and fruit in very cold locations with a little simple winter covering. Our Big Fruit and Garden Magazine Sent Free Months to Help You Start RIGHT! Filled with illustrated, interesting practical stories of success with "Money Crops." To encourage a more general planting of Grapes we make this liberal offer, and a silver Quarter takes it all. Send name and address today to:

THE FRUIT BELT
15 Market St., Grand Rapids, Mich.

The Children's Hour

DEAR Nieces and Nephews:—Last week a letter came to me from one of my nephews (I will not tell his name) that contained the following:

"I would like to get a squirrel for a pet. Would you please give me some instructions on making a trap that would catch them and not harm them? They are such frisky little fellows that I would like to catch one."

He must be a new member of the Children's Hour because if he has been a reader of our department for some time he should know what I think of capturing the animals that roam the woods and fields to make pets of them.

I will not tell him how to make a trap. God did not put the squirrel on earth to be caged up as a pet for man. What would you think if some great giants captured us and placed us in cages and made us stay there the rest of our lives? We would not like it, would we? Of course not, and neither would the squirrel.

If you wish to make a pet of a squirrel it is not necessary to catch it and put it in a cage. If you have ever been to Detroit and visited Belle Isle you no doubt have noticed how friendly the squirrels are on the island. Some of them will even eat from your hand if you are very quiet. Squirrels in the country will be just as tame if you are careful. Spread food where they can find it, keep some distance off while they eat for several days, then each day come a little nearer and before you know it you will be able to stand within a short distance of them and they will not be afraid. Within a few weeks they will expect you to feed them and watch for your coming. With kindness and patience you will be able to win their friendship.

Our contest is coming along nicely as shown by a few samples on this page of the letters I have received so far. Most of the letters are very well written and show careful thought and I am sure we are going to have considerable trouble in deciding the winner.—UNCLE NED.

OUR GIRLS AND BOYS

Dear Uncle Ned:—I was reading about which was the most interesting part of the Business Farmer and so I thought I would tell you what I thought the people like best.

I think the Farm Home department is what interests our mothers because it tells all about how to get stains, contains recipes, and the poems are beautiful. I think that for the men the story about Henry Ford and the front part of this paper is good. I know my father is interested in it and I have heard many other men speak about it. My mother likes the Farm Home department and I have heard many other women speak about it. I expect you know what part I am interested in. The Children's Hour. I was sick about three weeks ago and my mother read them to me. There was quite a few in the paper that time, there was about two pages of them. I like the poems you print. I speak pieces quite a lot. I like the piece you wrote in the paper this time on the poem that was put in the Farm Home department last issue or the Easter hymn.

I must describe and tell you about myself now. I have blue eyes, medium brown hair, am thirteen years old and in the eighth grade. We live four miles from Charlotte, two miles from Potterville. I would like to have the children write to me. I will answer their letters as soon as I receive them. I will close with a riddle, when is a nose not a nose? The one's that guess this riddle I will write a letter to, I will have to close for this time, your niece, Miss Isadora Perry, R. 8, Charlotte, Michigan.

Dear Uncle Ned:—May I join your merry circle? I have written before but did not see it in print. I am a boy 12 years and in the sixth grade. My birthday is the 4th of June. I wish any boys whose birthday is on that date, would write to me.

The best department of the M. B. F. is the "Poultry for Profit." I like it because it's about poultry and I like to take care of chickens, especially when they are small. They are so cute, it is fun to see them quarreling over a worm or see them step on one another's feet and get in a fight. I like to make pets of them so they will come up to the doorway where I feed them. I hope I will win a prize.

Well I will close with a riddle: Round as the moon, black as a cat, and has a tail on it. Answer: A frying pan. Well I think I have written enough so good-bye to Uncle Ned and the boys and girls. Harold Snyder, 2130 Laella St., Kalamazoo, Michigan.

Dear Uncle Ned:—This is the first letter I have ever written to you. But have thought of writing lots of times. I do not live on a farm just now. We sold our farm last fall and took a trip to southern Georgia. I liked it quite well there but I like Michigan best.

I am 13 years old. I have no pets now, but when I lived on the farm I had about 60 rabbits and a big shepherd dog.

What I think is best in your paper is the Children's Hour. My mother likes the stories and the Farm Home department. My father likes it all. He says he never saw a paper with so much of interest to the farmer and it is so much help to him. I like also to read the M.

B. F. better than any paper but I think the Children's Hour is of most interest to the boys and girls. Also the picture page. Your loving niece.—Sussie Tompkins, R. 5, Reed City, Mich.

Dear Uncle Ned:—I was reading in your letter last night that you are going to have a contest. May I tell you which part I choose? I choose the Children's Hour because I understand it better and I choose it because there are more children in it.

I am a Girl Scout of Huron City. There are forty-six scouts. I have four sisters and two brothers and two nephews. I live on a farm of 160 acres. We have six cows, four horses, ten young cattle, five small calves and five pigs. We have a pet goose. Its name is Peggy. I am eleven years of age and in the fifth grade. My birthday is on the 14th of January. I will close with some riddles. When is a sheep and ink alike?—Answer: When it is in a pen. Spell black water with three letters.—Answer: I-n-k. What is all patches and no stitches?—Answer: Cabbage. Why don't they collect fare from a policeman on a street car?—Answer: Because you can't take a nickel from a copper. What is the difference between a pen and a pencil?—Answer: One is drove and the other has to be lead. Always a liquid but sometimes gets hard?—Answer: Cider. Your niece, Katherine Berry, Grindstone City, Michigan.

Dear Uncle Ned: May I join your merry circle? I am a girl 15 years old and I thought I would try the prize winning contest for our Boys and Girls, that you mentioned in the March 31st issue of the M. B. F. The department that I think is the best in the March 31st issue is as follows:

Poultry for Profit

The reason why I think this is the best department is because most all people raise poultry. The city people, as well as the country people most always raise poultry. In the M. B. F. of the March 31st issue, is mentioned the facts that all people need to know in order to get the best results in poultry raising. I will now mention a few of the facts below. First of all comes careful feeding. You must feed the baby chicks just a little at a time, and feed them three or four hours apart so as they will have enough saliva to moisten the food and then be able to digest it properly. Second, is the moisture that is needed to satisfy the little chicks thirst. At first, until they are about three days old, there is moisture enough in their food for them, but after that you will have to set a dish of water in their pen for them, as they will need quite a lot of water as they grow older. Third, is the chickens shelter or coops. Their coops should be set facing the east so they will get the first rays of sun in the morning. This is necessary because chickens are always up as soon as it is day light, and as it is generally cool then they need all the warmth they can get. They should have plenty of room in their coops and as they should have roosts to set on when they go to bed for the night. With the facts mentioned I think people can take care of their chickens so as to get the best results in the meat and eggs. Well good-bye Uncle Ned.—Isabel Mamary, Auburn, Michigan, Route 1.

Hello Everybody:—As I have never won a prize yet, I thought I would try and win this one. I think that "The Truth About Henry Ford" is the most interesting article in the Business Farmer because the older people enjoy reading the life of this rich man. I heard that he had three million dollars in the bank and had forgotten all about it so he must be pretty rich, don't you think so, Uncle Ned? I do. The older people enjoy reading this story because it tells all about the life of Henry Ford and some of his adventures and what inventions he has made.

Well Uncle Ned, do you think you could answer some riddles if I asked you some? I will ask some and give the answers too. What is the best material for airplanes? Answer: Flypaper. What ship carries the most passengers? Answer: Courtship. Round as an apple, flat as a cup all of kings horses can't pull it up. Answer: Well, Round as an apple, flat as a chip, has two eyes and can't see a bit? Answer: Button. Round as an apple, busy as a bee, the prettiest little thing that you ever did see. Answer: Watch. Now the one that answers this one, I will write a letter to telling about what I seen in Detroit the last time I was down. Little Nancy Ediecat, standing in a petticoat; the longer she stands the smaller she grows. How many of the cousins got over 20 valentines? I'll say I did. I got 23. What do you think about that? It has not thawed here yet. I mean we still have a little snow. It thawed about two weeks ago but it snowed after that. I heard that they have five feet of snow in Alpena county. I was 12 years old on the 24th of March. Is there anyone whose birthday is on the same day as mine? If there is I wish they would write to me and I would answer all letters received, and from any other cousins too. I am in the sixth grade. Well Uncle Ned, I would like to win the prize but don't know whether I will or not, and my letter is getting pretty long and if I do not quit pretty soon Uncle Ned will be getting a switch off the old willow tree and getting after me for writing so long a letter so I will say good-bye Uncle Ned and Cousins.—Hazel Baker, in care of J. Baker, Elkton, Michigan.

Dear Uncle Ned:—First, I think that the farm crops, and veterinary departments are the most interesting parts of the M. B. F. because they give opinions of other people, facts that have been proved, and last but not least the cures for the farm animals. It tells how to improve your crops, and which crops to grow in rotation. Second, I think that the Farm Home department is next best, for it gives good recipes for cooking and baking. It tells how to keep the house clean and how to take dirty and greasy spots off. It has patterns that are all up-to-date. Third, I think that the children's department is next in line. It brings the lonely and sad, the happy and gay children closer together, and the contests you have help them also, because some of them may be inclined toward writing and this helps very much in penmanship. Next comes the story, Collection Box. "What the Neighbors Say" and other numerous departments of the paper.—Mary James, Sheridan, Michigan.

Dear Uncle Ned:—I have been a silent reader for sometime. May I join your merry circle? When we get the paper the first thing I look for is the Children's Hour. I am in the seventh grade at school, and am 13 years old. I have to walk one mile and a half to school. We have stone roads all the way so you see it is not hard walking. Good-bye from Neola, Townsend, R. 2, Freeland, Michigan.

SAVING MOTHER THOSE EXTRA STEPS

(Continued from Page 4)

"Roll rim sinks with a back attached are usually provided with nickel plated traps, either extending to the floor or to the wall. Extending to the floor is usually better for sinks attached to outside walls. Traps to the wall leave the floor beneath the sink free from piping.

"Nickel plated traps may be attached to either lead or iron pipe if the proper fittings are provided. When attached to an iron pipe a slip joint is used. The nickel plated pipe is inserted into the iron pipe; then the slip nut is screwed down onto a rubber gasket. A nickel plated pipe may be attached to a lead pipe by soldering, or by a union and a short piece of iron pipe. The lead pipe is inserted in the lower half of the union and beaded over, the nickel plated pipe is then inserted in the iron pipe and the slip nut screwed down.

"In some installations it is impossible to have the sink on an outside wall or near an outside wall. In such cases it will be necessary to have a low waste pipe."

"Just a minute, Dan," interrupted his father. "How about bad odors that might come back through the sink owing to the accumulation of waste matter in the longer waste pipe."

"To overcome that it is necessary to insert a trap in the pipe just below the floor, where you make the bend," explained Dan. "There is a picture in the book that shows just how it is done."

"Traps are usually placed directly beneath the fixture, but since in a great many cases sinks are installed in houses not heated by a furnace, the trap will be less likely to freeze if placed just below the floor line, as shown.

"In cases where a long waste pipe is necessary, it will be best to use 1 1/2 inch iron pipe with threaded fittings. The trap used is a half S sact trap provided with a cleanout plug at the bottom, for use in case it becomes clogged. Elbows, tees, etc., used in connecting the waste pipe should be special drainage fittings if they can be secured.

"It will be necessary to have a special fitting to attach an iron pipe to the sink.

"Occasionally a lead trap is used beneath the sink, and sometimes this is attached to an iron waste pipe. This connection can be made with an ordinary cast union (a union with a brass seat is better). Screw the lead pipe into the half of the union having the brass seat until it projects through about 3/4 of an inch; then flange over. The flange on the lead pipe will serve as a gasket.

"The best location for the grease trap is close to the cellar wall. This location reduces to a minimum the possibility of clogging in the sewer.

"Procure a barrel of large size; it need not be perfectly tight. Dig a hole in the ground close to the wall at the point where the waste pipe comes through. This hole should be about 8 inches larger than the diameter of the barrel and about 15 inches deeper than the barrel is high.

"Put about 3 in. of concrete in the bottom of the hole and tamp down. About 16 inches of the lead waste pipe should extend into the hole. It need not be bent downward until after the barrel has been removed. Place the barrel in the center of the hole, letting the waste pipe rest on top of the barrel; then fill around the outside with concrete. When nearly full remove the upper hoop of the barrel and cut a notch deep enough to receive the waste pipe. At the point where the tile drain is to be attached, leave a notch deep enough for the outlet tile elbow.

"Remove the barrel when the concrete has set, bend down the waste pipe as shown in Fig. 12, and the outfit is ready for the drain and elbow to be attached.

"The tile from the grease trap may be run directly into the farm drainage system if convenient, or, if the soil is sand or gravel, about 75 feet of ordinary drain can be attached to the trap. If the soil is clay, it may be necessary to put six inches of gravel in the trench before putting in the tile."

Dan laid the bulletin one side and yawned, his father looked at his watch.

"Why it's a quarter past ten," ex-

claimed Mr. Baxter. "Time all good boys like you and I were in bed."

He rose and stretched.

"We'll go to town tomorrow and get that stuff," he remarked to Dan as the latter sat removing his shoes. "And maybe mother won't be glad when we tell her in the morning—yes, maybe she won't."

With a pleasant "Goodnight" Dan went to his room. His father knocked the ashes from his cold pipe and as he turned out the light he mused to himself:

"The trouble with us men-folks is that we don't always appreciate the women, and what they do for us. Guess I'd better figure on putting in running water and the fixtures that go with it this fall."

(Editor's Note: We are indebted to Prof. O. E. Robey, Extension Specialist, M. A. C., for the facts used in this article and cuts used to illustrate it.)

POWER FROM STREAM TO RUN GENERATOR

(Continued from Page 10)

able that it would be possible to make more than one-third of this amount available for actual power which would be not more than one-quarter H. P., this would be sufficient to operate a few lights without storage batteries, provided it would

not have to be transmitted a great distance.

It might be possible that one of either two plans of storage could be used in this case. If a reservoir could be built to store the water then a large flow might be used for a shorter period of the day. To illustrate one-quarter H. P. useable for 24 hours of the day would be equal to 1 H. P. useable for one-quarter day or 6 hours or 2 H. P. for 3 hours. If the water was stored so that the light and power could be used only as needed then a larger wheel and generator could be used, probably this would be a more practical installation. However if developed at the slower rate through the stored in a 16 cell battery so as to generate 32 volts.

Home made machines could be constructed for this purpose but are rather impractical because they do not show very high efficiency. It is very likely with the amount of head available the water-wheel would be found more practical than the turbine.—H. H. Musselman, Professor of Farm Mechanics, M. A. C.

QUACKGRASS DIFFICULT TO EXTERMINATE

QUACKGRASS can rarely be exterminated on large areas, but it can be brought under reasonable control, says the United States Department of Agriculture. The

best plan, according to Farmers' Bulletin 1307, Quackgrass, by L. W. Kephart of the Bureau of Plant Industry, is to allow it to form a sod and then plow it in midsummer during dry, hot weather. After plowing, the field should be harrowed frequently until winter and the following year planted with a cultivated crop.

To be effective against quackgrass cultivation and harrowing must be thorough, frequent, and persistent. Half way cultivation is worse than none. Certain systems of cropping are suggested in the bulletin as a means of holding quackgrass in check on large areas. The use of smother crops that make a heavy, dense growth and kill the weeds by crowding and shading is also suggested under certain conditions. Miscellaneous methods of control for small areas are discussed. On small patches tar paper covering can be used effectively to smother the quackgrass, but this method is too laborious for large areas.

Those interested in the methods of quackgrass control may have the bulletin free of charge by writing to the U. S. Dept. of Agriculture.

WANT A NEW ACCOUNT BOOK?

The Paper Machine Co., 178 Main St., Shortsville, N. Y., offer again this year to send readers of the Business Farmer a copy of their new 50-page Farmers Record and Account Book, free if you mention the size of your silo and the name of your implement dealer. There is no other obligation involved. Better send for your copy now!



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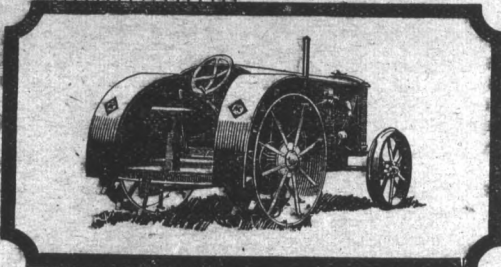
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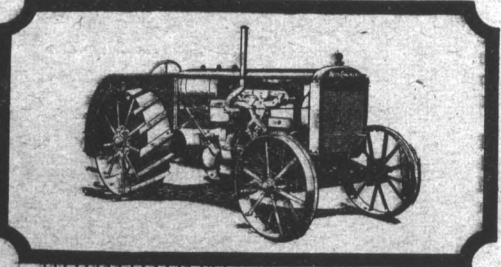
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ALLIS CHALMERS

A GARDEN SONG

HERE, in this sequestered close
Bloom the hyacinth and rose;
Here besides the modest stock
Flaunts the flaring hollyhock;
Here, without a pang, one sees,
Ranks, conditions, and degrees.

All the seasons run their race
In this quiet resting-place;
Peach, and apricot, and fig
Here will ripen, and grow big;
Here is store and overplus—
More had not Alcinous.

—Austin Dobson

GETTING THE GARDEN SPIRIT

WHEREVER there is soil, plants grow and produce their kind, and, all plants are interesting. Every family should try and make their home their castle and be proud of it. What difference does it make if you do rent the land. The outside of one's home speaks very plainly what kind of folks dwell within. One plant in a tin can may be a more helpful and inspiring garden to some mind than a whole acre of lawn and flowers may be to another. The satisfaction of a garden does not depend on the area, nor happily on the cost or rarity of the plants. It depends on the temper of the person. One must first seek to love plants and nature and then to cultivate the happy peace of mind that is satisfied with what they have.

We are won't to covet the things that we cannot have, but we are happier when we love the things that grow because they must. A patch of lusty pigweeds growing and crowding in luxuriast abandon may be a better and more worthy object of affection than a bed of coleuses in thick every spark of life and spirit and individuality has been sheared out and suppressed. The man who worries morning and night about the dandelions in the lawn will find great relief in loving the dandelions. Each blossom is worth more than a gold coin, as it shines in the sunlight of the growing spring, and attracts the insects to its bosom.

Little children like the dandelions. Why not we? Love the things nearest at hand; and love intensely. If I were to write a motto over the gate of a garden, I should choose the remark that Socrates the great philosopher made as he saw the luxuries in the market: "How much their is in this world that I do not want."

VEGETABLES AS HEALTH-BUILDERS

IF any of you folks attended Farmers' Week in Lansing this winter I am sure you must have been impressed with the wonderful program of talks on life on a farm and some of the remedies these speakers tried so hard to have the farm mother take home with her.

It is hard to make our women folks believe they are not bringing up the family right. Too little has been said to help us realize the importance of vegetables in our diet and the wonders that these vegetables do for our bodies in making us strong and healthy.

Altho strange as it seems, the farmer usually tills his fields and raises food for the market and the garden for the family is forgotten.

Why not this year have a small plot laid aside and have the children take an interest. Make them feel responsible for the weeding and if it is necessary and I think it only right, suggest a small amount to be paid them or else the promise of the treat in town when you go.

Children are told to eat carrots if they want color in their cheeks and beets to be strong and able to romp and play. Just how much there is to this is hard to say, but all the root crops are rich in vitamins and the elements that aid digestion. Carrots are rich in the coloring matter known as "carotin," which is also present in green grass and gives the rich color to the cow's milk during the early summer. Radishes are effective for warding off scurvy and similar disorders and are eaten more as a salad than a true vegetable.

Root crops such as carrots, beets, parsnips and salsify, yield large quantities of actual food from a small space of ground and for this reason are adapted for growing in the small garden. Parsnips may be grown as an early spring crop in the south and used before the ex-

The Farm Home
A Department for the Women

Edited by MRS. ANNIE TAYLOR

HOW TO EARN MONEY AT HOME

THERE seems to be a call from all the women to help in some way to swell the bank account. It just seems possible that some work could be done at home and a little spare time taken to do or make these things that will bring in more money. Surely there are some of our readers who have found a way to help and I think a good plan would be to pass it on. Tell me your experience, how you go about the task and some idea of how much time is spent upon the enterprise. Tell me approximately how much money you think you have made by these efforts. I have received several letters asking me how my readers could make a little extra money. Let us try and help our neighbors by telling them of our own experiences. God has made us all alike in our desires and it just seems that some have more fore-sight than others but we all can have the same ambitions if we only know how to go about our tasks.

Your Friend,
Mrs. Annie Taylor

Address letters: Mrs. Annie Taylor, care The Business Farmer, Mt. Clemens

tremely hot weather of summer. In the north parsnips require the entire growing season for their development and may be left in the ground during the winter and to a certain degree improve with freezing.

The essentials for growing root crops are a deep, rich, well-drained soil, good seed proper thinning and frequent shallow cultivation. None of the root crops, with the possible exception of beets, can be transplanted successfully as the breaking of the tap root in transplanting causes them to grow rough and distorted. The proper method is to spade and pulverize the soil 8 to 10 inches deep, working fine fertilizer to the full depth of spading, then sow the seeds where they are to grow and thin out the plants so that every plant left has room to develop. In the case of beets what appears to be a seed is really a seed "ball" containing one to three seeds, consequently beets usually come up much thicker than the gardener expects. Carrot and parsnip seed lose their vitality or power to grow very quickly and seed of last year's production should always be used.

When it comes to planting the beets, carrots and other root crops the soil which has been spaded and fertilized should be raked smooth and the little rows or furrows formed by means of the hoe handle or a rounded stick drawn along a tight line. The distance between rows may be about 18 inches for beets and carrots and at least 24 inches for parsnips and salsify. The seeds should not be covered more than one inch deep on sandy land and less on heavy soils, and the soil used for covering them should always be fine and mellow. If the soil is in the least dry it should be firmed over the seeds by laying a board on top of the row after the seeds are covered, then walking on the board.

Beans and peas make muscle and backbone.

BLUE AMONG YOUR FLOWERS

BLUE is a color that is not common among garden flowers, and yet there are some very pretty blues we may have. The blue cornflower has long been a garden favorite. No blue makes much of a showing unless planted with white or perhaps a decided pink or bright red. In some cases several colors are combined. I do not like these mixtures, however, as one companion color with blue always looks best.

White sets off the blue without being too "showy," or in a background where display is desirable bright red is effective with a bright blue. Altho the cornflower (centaurea cyanus) is planted more than any other tall blue flower, there are five blues among the annual larkspurs and asters which are very desirable. Larkspurs bloom a long time in sum-

mer, and the asters bloom late in the fall when the flowers are scarce.

Larkspurs are more showy than cornflowers. Whites and reds can be obtained in each of these, or some other flower that is taller and blooms with them may be used as a background. Nicotiana makes a nice companion plant to grow with cornflowers. Asters, however, are massive flowers, so are prettier when grown in a mass with whites or reds of the same flower.

Ageratums, pansies, verbenas and lobelias are all low growing flowers with good blues. The ageratum comes in blue and white only. It is easy to grow and quite popular, but I do not admire it very much. The verbenas are one of our finest flowers a trailer much valued for planting among gladioli or other tall plants. The pansy is too well known and loved to need praise. The lobelia is not so well known as it deserves, for it is very pretty, grows low, is compact, likes shade and is an intense blue.

BIRD HOUSES ON THE GROUNDS

THIS year would be a splendid one to have John build you a bird house or purchase one. Birds are one of our best friends and they help in their own way to prevent insect life getting too far with our trees and shrubs. A bird making ready his home for the mate teaches us humans a great deal in love and respect. They bring happiness untold with their songs of love.

Henry Ford is a great lover of birds, and his home and other properties he owns are just alive with birds making their nest ready in the many bird-houses he has had put up on his ground. Let us take a little while this spring and see if we cannot improve our surroundings.

SWEET PEAS FOR EVERY GARDEN

THE sweet pea deserves a place in every garden for it is not to be surpassed by any other annual when it comes to beauty, fragrance, range of color, and usefulness for cut flowers.

For early flowers the winter flowering type is useful. The Waved or Spencer varieties are much superior to the Grandiflora varieties. These are older types of the flower which will be discarded by all growers of sweet peas when once they have tried the Spencer variety with the long stems and beautiful waved edges.

Location and Soil

Choose a site for your sweet peas that will give them plenty of sun and allow you to run the rows north and south, for by so planting, the tops shade the base of the plants and keep the soil cool.

Sweet peas will grow in any good garden soil if it is well drained so that the water does not stand around the plants during rainy periods. Although ordinary preparation of the

soil will give reasonably good sweet peas if the season is favorable; if the summer is hot and dry, the peas will bloom for only a short period. If the soil has not been prepared in the fall, the first thing to do as soon as the ground will allow working is to spade a trench about a foot wide and approximately two deep. If the subsoil is not good, it should be removed and replaced with good garden loam which has been mixed with well-rotted manure. A heavy application of superphosphate of lime should be worked into the soil. Sweet peas do best in heavy soil if it is sweetened with lime and loosened with manure. By all means plant your peas as soon as you can work the ground so that they get a good root development.

As soon as the plants send forth tendrils, some support should be provided. In the country where good twiggy boughs are easily obtained, such support is best.

Sweet peas make a beautiful bouquet with baby breath.

GREENS AS A MEDICINE

ONE of the ways of preventing the human system from suffering from digestive monotony is to provide plenty of green or leaf vegetables in the diet. Fresh green food not only serves as the broom for the stomach, but supplies the human system with the mineral elements that are so essential to health.

Spinach, kale, mustard, dandelion, sour grass and other kinds of greens taste best in spring because they are more tender and fresher at that time.

By the use of coldframes, coverings of straw or pine boughs and other means of protection, spinach and kale may be carried through the winter rather far north.

Beds on which late fall, winter and early spring kale and spinach are grown should be raised three to six inches above the surrounding surface so as to drain well. They are best located on a southern or eastern exposure to get the full benefit of the sun. A shelter of pine boughs or corn fodder along the north and west sides of the beds is a great protection against cold and wind. Plenty of fertilizer is essential where fall plantings are made for spring use.

Highly nitrogenous fertilizers should not be applied until after the cold weather or until active growth of the plants begins.

The season for greens on the table can be prolonged during the spring and summer. Mixtures of young, tender beet tops, swiss chards, mustard and other greens may be made. In combining the mixture for canning only a small proportion of mustard or of any pungent green material should be used.

Mothers Problems

TRAIN CHILDREN TO MEET EMERGENCIES

NO child is too young to be trained for an emergency: yet accidents, with their terrible consequences, are not good subjects for a child to dwell upon. The knowledge of "what to do if—" must be imparted in a pleasant way—and there is no pleasanter way than by means of a game which Mother and the children can play whenever they are together.

Says the mother: "What would you do if your clothes should ever catch on fire?" The children will probably give varying answers, some good, some highly impractical, even dangerous. Finally the mother tells what she would do, which is, of course, the correct course to pursue in such an accident.

It is then time for the child who gave the best answer to ask Mother a question. She may think of some big accident, such as burning, drowning, being run over and the like, as she may be more interested in knowing what Mother would do in case her "nose got to bleeding and wouldn't stop," or she "got caught in a snowstorm and couldn't see a thing." In either case the information gained would be invaluable if ever she was called upon to meet such an emergency.

Fewer fatalities would result from accidents if people were only trained to do the proper thing. Mothers who play this game with their children will find out that they must study up on "emergencies and how to meet them," in order to impart

TIME EXTENDED TO WEDNESDAY, APRIL 18TH FOR GARDEN LETTERS

IN order that all our readers might have an opportunity to send in their suggestions on making the front of the house beautiful with flowers and shrubs with the least cost possible, we are extending our contest over to the next issue and will then print some of these suggestions.

SULPHUR AND MOLASSES

By JAMES M. WOODMAN

In them good old days back yonder th' home-folks useter make Th' tonics which our mothers were so prone t' have us take, When th' Springtime's balmy breezes began t' gently blow— They had th' modern "dopes" outclassed a mile, I'd have you know. E'en now I see our healthy brood, each take his turn by gee! When mother dealt th' sulphur an' molasses out t' me.

Some folks tuk sassafras, an' some, et slipp'ry elum bark; An' some used yaller-dock, but say! jest please let me remark Uv all th' tonics ever made t' set yer teeth on edge, An' make y' squirm an' argue back, an' duck around and hedge, If there is anything on earth, much worse, what could it be Than that old sulphur and molasses mother gave t' me.

Er I should live a millyun I don't think I'd forget Th' taste uv that old medicine—by jing! I see it yet Up in th' big old tumbler glass, upon th' kitchen shelf, A-sort o' sayin', "come along, old chap, an' help yourself," Still, could I be a boy again, I'd take it willingly— Th' sulphur and molasses which my mother gave t' me.

the correct knowledge to their children. And they will find that their children will think up all sorts of accidents which it had never occurred to them to warn against.

What would you do if—"you tumbled into a well?"—"if you almost stepped on a rattlesnake?"—"if you swallowed a penny?"—"if you nearly cut your foot off and nobody was at home?" Such questions your children would like to have answered, and ought to have answered. Could you answer them? If not, "brush up" on first-aid and interest the children in the "game" mentioned above.—Margaret Bartlett.

Personal Column

Would like to know if any reader has the story "Pam De cides" by Bettina Van Hutten? If so, will they sell it or lend it, or exchange it, and for how much? I have the first story, "Pam". Would like very much also to secure the Geographical magazine for January, February, March, April, 1923. Willing to buy or exchange magazines such as Ladies' Home Journal, Woman's Home Companion, McCall's, Today's Housewife, and Saturday Evening Post. Or, I have a year's number (1922) of The Mentor, that I would exchange for these numbers of The Geographic.

Is there any one having a receipt for canning horse-radish, so it will keep.—Mrs. C. F.

Miss M. M.—Here is the poem you asked for and I hope it will bring you much joy. I could

AIDS TO GOOD DRESSING

THE vogue for one-piece frocks has made the top coat and wrap a necessity. And the new spring models are not only necessities, but are things of rare beauty and convenience, and there are wraps and coats for all occasions and ones for general wear as well. The cape is considered the last word in all our large cities, especially New York. Any good coat material for summer suiting cloths in plain colors such as black, tan, brown, navy-blue are very popular. Will try and have some patterns in next issue.



A Model Good For Stout Figures
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buy this in sheet music for the piano if you care to send the money. I think I could get it for twenty-five cents. Verse sent in by Mrs. Harvey Gable, Ithaca, Michigan.

ALWAYS IN THE WAY.

Please Mister take me in your car
I want to see my mama
They say she lives in Heaven
Is it very very far.

Cho.
Always in the way
So they always say
I wonder why they don't kiss me
Just the same as sister May
I dare never play
My own mother would never say
You're always in the way.

The song it ended all too soon
She toddled off alone
A Light shone in the window
And she peeped into the room
Please tell me is this Heaven
And will they let me stay
Forever child for this is Heaven
And you are not in the way.

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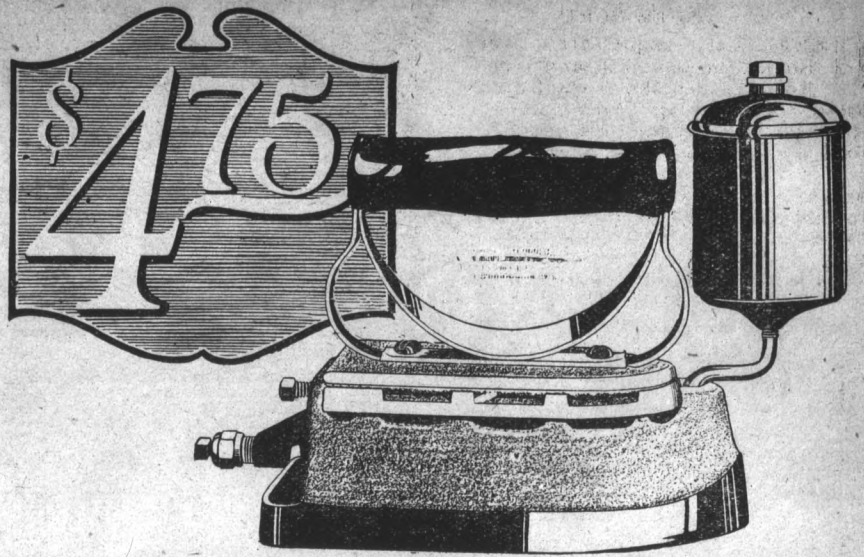
FOR him who must run and yet would read, and particularly for her who at seventeen has already begun to run, these commands and promises of Holy Writ are gathered and grouped by one who while running has felt the need.

I am going to give you a few that's each week from this wonderful book and let us try and see if it will not help to make our days happier for having read them.

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If your general store or hardware dealer has none in stock we will gladly tell you the nearest one who has.



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Central States Managers,
MARION, IND.

85 Pound Standard Slate Surfaced Roofing

\$2.00 Per Roll
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Do it in your spare time. No experience needed. Only hammer and jack knife required. Use our standard Radio Slate Surfaced Roofing.

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Best Standard Quality You Can Buy
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Red or Green
Non-fading crushed slate surface beautifies as well as protects your home. Guaranteed for 15 years but should last longer.

Send for FREE SAMPLES
It puts you under no obligation to buy. \$2.00 per roll includes all nails and cement. (Add 8c if wanted with extra long nails.)

Shipped from Chicago, Kansas City, St. Paul, York, Pa.; Southern, Ill., or New Orleans, La. (\$2.10 per roll from Kansas City or St. Paul.)

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and all good leather

Stylish, long-wearing Men's and Boys' oxfords and shoes for dress and business wear



At \$5 to \$6

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PATENTS

Write today for free instruction book and "Evidence of Conception" blank. Send sketch or model for personal opinion. CLARENCE O'BRIEN
Registered Patent Lawyer, 1053 Southern Building, Washington, D. C.

A GARDEN SONG

HERE, in this sequestered close
Bloom the hyacinth and rose;
Here besides the modest stock
Flaunts the flaring hollyhock;
Here, without a pang, one sees,
Ranks, conditions, and degrees.

All the seasons run their race
In this quiet resting-place;
Peach, and apricot, and fig
Here will ripen, and grow big;
Here is store and overplus—
More had not Alcinous.

—Austin Dobson

GETTING THE GARDEN SPIRIT

WHEREVER there is soil, plants grow and produce their kind, and, all plants are interesting. Every family should try and make their home their castle and be proud of it. What difference does it make if you do rent the land. The outside of one's home speaks very plainly what kind of folks dwell within. One plant in a tin can may be a more helpful and inspiring garden to some mind than a whole acre of lawn and flowers may be to another. The satisfaction of a garden does not depend on the area, nor happily on the cost or rarity of the plants. It depends on the temper of the person. One must first seek to love plants and nature and then to cultivate the happy peace of mind that is satisfied with what they have.

We are won't to covet the things that we cannot have, but we are happier when we love the things that grow because they must. A patch of lusty pigweeds growing and crowding in luxuriant abandon may be a better and more worthy object of affection than a bed of coleuses in thick every spark of life and spirit and individuality has been sheared out and suppressed. The man who worries morning and night about the dandelions in the lawn will find great relief in loving the dandelions. Each blossom is worth more than a gold coin, as it shines in the sunlight of the growing spring, and attracts the insects to its bosom.

Little children like the dandelions. Why not we? Love the things nearest at hand; and love intensely. If I were to write a motto over the gate of a garden, I should choose the remark that Socrates the great philosopher made as he saw the luxuries in the market: "How much their is in this world that I do not want."

VEGETABLES AS HEALTH-BUILDERS

IF any of you folks attended Farmers' Week in Lansing this winter I am sure you must have been impressed with the wonderful program of talks on life on a farm and some of the remedies these speakers tried so hard to have the farm mother take home with her.

It is hard to make our women folks believe they are not bringing up the family right. Too little has been said to help us realize the importance of vegetables in our diet and the wonders that these vegetables do for our bodies in making us strong and healthy.

Altho strange as it seems, the farmer usually tills his fields and raises food for the market and the garden for the family is forgotten.

Why not this year have a small plot laid aside and have the children take an interest. Make them feel responsible for the weeding and if it is necessary and I think it only right, suggest a small amount to be paid them or else the promise of the treat in town when you go.

Children are told to eat carrots if they want color in their cheeks and beets to be strong and able to romp and play. Just how much there is to this is hard to say, but all the root crops are rich in vitamins and the elements that aid digestion. Carrots are rich in the coloring matter known as "carotin," which is also present in green grass and gives the rich color to the cow's milk during the early summer. Radishes are effective for warding off scurvy and similar disorders and are eaten more as a salad than a true vegetable.

Root crops such as carrots, beets, parsnips and salsify, yield large quantities of actual food from a small space of ground and for this reason are adapted for growing in the small garden. Parsnips may be grown as an early spring crop in the south and used before the ex-



The Farm Home

A Department for the Women

Edited by MRS. ANNIE TAYLOR

HOW TO EARN MONEY AT HOME

THERE seems to be a call from all the women to help in some way to swell the bank account. It just seems possible that some work could be done at home and a little spare time taken to do or make these things that will bring in more money. Surely there are some of our readers who have found a way to help and I think a good plan would be to pass it on. Tell me your experience, how you go about the task and some idea of how much time is spent upon the enterprise. Tell me approximately how much money you think you have made by these efforts. I have received several letters asking me how my readers could make a little extra money. Let us try and help our neighbors by telling them of our own experiences. God has made us all alike in our desires and it just seems that some have more fore-sight than others but we all can have the same ambitions if we only know how to go about our tasks.

Your Friend,
Mrs. Annie Taylor

Address letters: Mrs. Annie Taylor, care The Business Farmer, Mt. Clemens

tremely hot weather of summer. In the north parsnips require the entire growing season for their development and may be left in the ground during the winter and to a certain degree improve with freezing.

The essentials for growing root crops are a deep, rich, well-drained soil, good seed proper thinning and frequent shallow cultivation. None of the root crops, with the possible exception of beets, can be transplanted successfully as the breaking of the tap root in transplanting causes them to grow rough and distorted. The proper method is to spade and pulverize the soil 8 to 10 inches deep, working fine fertilizer to the full depth of spading, then sow the seeds where they are to grow and thin out the plants so that every plant left has room to develop. In the case of beets what appears to be a seed is really a seed "ball" containing one to three seeds, consequently beets usually come up much thicker than the gardener expects. Carrot and parsnip seed lose their vitality or power to grow very quickly and seed of last year's production should always be used.

When it comes to planting the beets, carrots and other root crops the soil which has been spaded and fertilized should be raked smooth and the little rows or furrows formed by means of the hoe handle or a rounded stick drawn along a tight line. The distance between rows may be about 18 inches for beets and carrots and at least 24 inches for parsnips and salsify. The seeds should not be covered more than one inch deep on sandy land and less on heavy soils, and the soil used for covering them should always be fine and mellow. If the soil is in the least dry it should be firmed over the seeds by laying a board on top of the row after the seeds are covered, then walking on the board.

Beans and peas make muscle and backbone.

BLUE AMONG YOUR FLOWERS

BLUE is a color that is not common among garden flowers, and yet there are some very pretty blues we may have. The blue cornflower has long been a garden favorite. No blue makes much of a showing unless planted with white or perhaps a decided pink or bright red. In some cases several colors are combined. I do not like these mixtures, however, as one companion color with blue always looks best.

White sets off the blue without being too "showy," or in a background where display is desirable bright red is effective with a bright blue. Altho the cornflower (centaurea cyanus) is planted more than any other tall blue flower, there are five blues among the annual larkspurs and asters which are very desirable. Larkspurs bloom a long time in sum-

mer, and the asters bloom late in the fall when the flowers are scarce.

Larkspurs are more showy than cornflowers. Whites and reds can be obtained in each of these, or some other flower that is taller and blooms with them may be used as a background. Nicotiana makes a nice companion plant to grow with cornflowers. Asters, however, are massive flowers, so are prettier when grown in a mass with whites or reds of the same flower.

Ageratums, pansies, verbenas and lobelias are all low growing flowers with good blues. The ageratum comes in blue and white only. It is easy to grow and quite popular, but I do not admire it very much. The verberna is one of our finest flowers a trailer much valued for planting among gladioli or other tall plants. The pansy is too well known and loved to need praise. The lobelia is not so well known as it deserves, for it is very pretty, grows low, is compact, likes shade and is an intense blue.

BIRD HOUSES ON THE GROUNDS

THIS year would be a splendid one to have John build you a bird house or purchase one. Birds are one of our best friends and they help in their own way to prevent insect life getting too far with our trees and shrubs. A bird making ready his home for the mate teaches us humans a great deal in love and respect. They bring happiness untold with their songs of love.

Henry Ford is a great lover of birds, and his home and other properties he owns are just alive with birds making their nest ready in the many bird-houses he has had put up on his ground. Let us take a little while this spring and see if we cannot improve our surroundings.

SWEET PEAS FOR EVERY GARDEN

THE sweet pea deserves a place in every garden for it is not to be surpassed by any other annual when it comes to beauty, fragrance, range of color, and usefulness for cut flowers.

For early flowers the winter flowering type is useful. The Waved or Spencer varieties are much superior to the Grandiflora varieties. These are older types of the flower which will be discarded by all growers of sweet peas when once they have tried the Spencer variety with the long stems and beautiful waved edges.

Location and Soil

Choose a site for your sweet peas that will give them plenty of sun and allow you to run the rows north and south, for by so planting, the tops shade the base of the plants and keep the soil cool.

Sweet peas will grow in any good garden soil if it is well drained so that the water does not stand around the plants during rainy periods. Although ordinary preparation of the

soil will give reasonably good sweet peas if the season is favorable; if the summer is hot and dry, the peas will bloom for only a short period. If the soil has not been prepared in the fall, the first thing to do as soon as the ground will allow working is to spade a trench about a foot wide and approximately two deep. If the subsoil is not good, it should be removed and replaced with good garden loam which has been mixed with well-rotted manure. A heavy application of superphosphate of lime should be worked into the soil. Sweet peas do best in heavy soil if it is sweetened with lime and loosened with manure. By all means plant your peas as soon as you can work the ground so that they get a good root development.

As soon as the plants send forth tendrils, some support should be provided. In the country where good twiggy boughs are easily obtained, such support is best.

Sweet peas make a beautiful bouquet with baby breath.

GREENS AS A MEDICINE

ONE of the ways of preventing the human system from suffering from digestive monotony is to provide plenty of green or leaf vegetables in the diet. Fresh green food not only serves as the broom for the stomach, but supplies the human system with the mineral elements that are so essential to health.

Spinach, kale, mustard, dandelion, sour grass and other kinds of greens taste best in spring because they are more tender and fresher at that time.

By the use of coldframes, coverings of straw or pine boughs and other means of protection, spinach and kale may be carried through the winter rather far north.

Beds on which late fall, winter and early spring kale and spinach are grown should be raised three to six inches above the surrounding surface so as to drain well. They are best located on a southern or eastern exposure to get the full benefit of the sun. A shelter of pine boughs or corn fodder along the north and west sides of the beds is a great protection against cold and wind. Plenty of fertilizer is essential where fall plantings are made for spring use.

Highly nitrogenous fertilizers should not be applied until after the cold weather or until active growth of the plants begins.

The season for greens on the table can be prolonged during the spring and summer. Mixtures of young, tender beet tops, swiss chards, mustard and other greens may be made. In combining the mixture for canning only a small proportion of mustard or of any pungent green material should be used.

Mothers Problems

TRAIN CHILDREN TO MEET EMERGENCIES

NO child is too young to be trained for an emergency: yet accidents, with their terrible consequences, are not good subjects for a child to dwell upon. The knowledge of "what to do if—" must be imparted in a pleasant way—and there is no pleasanter way than by means of a game which Mother and the children can play whenever they are together.

Says the mother: "What would you do if your clothes should ever catch on fire?" The children will probably give varying answers, some good, some highly impractical, even dangerous. Finally the mother tells what she would do, which is, of course, the correct course to pursue in such an accident.

It is then time for the child who gave the best answer to ask Mother a question. She may think of some big accident, such as burning, drowning, being run over and the like, as she may be more interested in knowing what Mother would do in case her "nose got to bleeding and wouldn't stop," or she "got caught in a snowstorm and couldn't see a thing." In either case the information gained would be invaluable if ever she was called upon to meet such an emergency.

Far fewer fatalities would result from accidents if people were only trained to do the proper thing. Mothers who play this game with their children will find out that they must study up on "emergencies and how to meet them," in order to impart

TIME EXTENDED TO WEDNESDAY, APRIL 18TH FOR GARDEN LETTERS

IN order that all our readers might have an opportunity to send in their suggestions on making the front of the house beautiful with flowers and shrubs with the least cost possible, we are extending our contest over to the next issue and will then print some of these suggestions.

SULPHUR AND MOLASSES

By JAMES M. WOODMAN

In them good old days back yonder th' home-folks useter make Th' tonics which our mothers were so prone t' have us take, When th' Springtime's balmy breezes began t' gently blow— They had th' modern "dopes" outclassed a mile, I'd have you know. E'en now I see our healthy brood, each take his turn by gee! When mother dealt th' sulphur an' molasses out t' me.

Some folks tuk sassafras, an' rome, et slipp'ry elum bark; An' some used yaller-dock, but say! jest please let me remark Uv all th' tonics ever made t' set yer teeth on edge, An' make y' squirm an' argue back, an' duck around and hedge, If there is anything on earth, much worse, what could it be Than that old sulphur and molasses mother gave t' me.

Er I should live a millyun I don't think I'd forget Th' taste uv that old medicine—by jing! I see it yet Up in th' big old tumbler glass, upon th' kitchen shelf, A-sort o' sayin' "Come along, old chap, an' help yourself." Still, could I be a boy again, I'd take it willingly— Th' sulphur and molasses which my mother gave t' me.

the correct knowledge to their children. And they will find that their children will think up all sorts of accidents which it had never occurred to them to warn against.

What would you do if—"you tumbled into a well?"—"if you almost stepped on a rattlesnake?"—"if you swallowed a penny?"—"if you nearly cut your foot off and nobody was at home?" Such questions your children would like to have answered, and ought to have answered. Could you answer them? If not, "brush up" on first-aid and interest the children in the "game" mentioned above.—Margaret Bartlett.

Personal Column

Would like to know if any reader has the story "Pam De cides" by Betina Van Hutten? If so, will they sell it or lend it, or exchange it, and for how much? I have the first story, "Pam". Would like very much also to secure the Geographical magazine for January, February, March, April, 1923. Willing to buy or exchange magazines such as Ladies' Home Journal, Woman's Home Companion, McCall's, Today's Housewife, and Saturday Evening Post. Or, I have a year's number (1922) of The Mentor, that I would exchange for these numbers of The Geographic.

Is there any one having a receipt for canning horse-radish, so it will keep.—Mrs. C. F.

Miss M. M.—Here is the poem you asked for and I hope it will bring you much joy. I could

AIDS TO GOOD DRESSING

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ALWAYS IN THE WAY.

Please Mister take me in your car I want to see my mama They say she lives in Heaven Is it very very far.

Cho. Always in the way So they always say I wonder why they don't kiss me Just the same as sister May I dare never play My own mother would never say You're always in the way.

The song it ended all to soon She tottled off alone A Light shone in the window And she peeped into the room Please tell me is this Heaven And will they let me stay Forever child for this is Heaven And you are not in the way.

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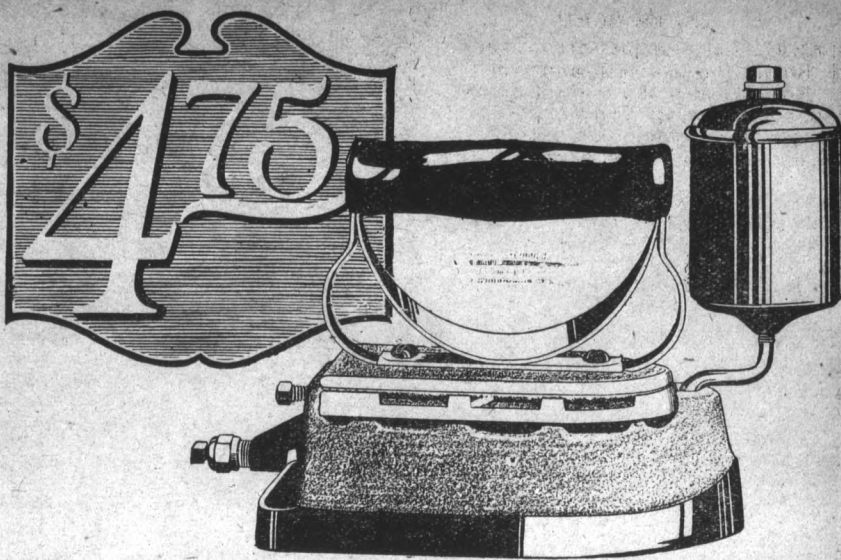
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Red or Green

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At \$5 to \$6

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KEEP THE BUSINESS FARMER COMING SEE PAGE 25



Spring is Here

All out-of-doors is filled with the bleat of the lamb, the bawl of the calf, the grunt of the pig, and the whinny of the colt.

Youth asserting itself everywhere!

Keep their bodies healthy, and stomachs full.

You can then count on good growth—quick development—and begin to cash in on them before the summer-end.



Let

DR. HESS STOCK TONIC

be your insurance policy

against disease, insurance of good appetite, good digestion. It keeps the worms away.

Then, there are the mothers:

Your COWS need it for its system-toning, bowel-cleansing, appetizing effects. Puts them in fine condition for calving.

Your BROOD SOWS will be relieved of constipation and put in fine fettle for farrowing.

Excellent for MARES in foal—and EWES at lambing time.

It makes for good appetite, and more milk to nourish the offspring.

Tell your dealer what stock you have. He has a package to suit. GUARANTEED.

25 lb. Pail, \$2.25 100 lb. Drum, \$8.00

Except in the far West, South and Canada.

Honest goods—honest price—why pay more?

DR. HESS & CLARK Ashland, O.



I spent 30 years in perfecting this Tonic.
GILBERT HESS
M.D., D.V.S.

Dr. Hess Dip and Disinfectant
For Sheep Ticks - for Hog Lice - for Health

BREEDERS DIRECTORY

Advertisements inserted under this heading for reputable breeders of Live Stock at special low rates to encourage the growing of pure-breds on the farms of our readers. Our advertising rate is Thirty Cents (30c) per square line per insertion. Fourteen square lines to the column inch or \$4.20 per inch, less 2% for cash if sent with order or paid on or before the 16th of month following date of insertion. SEND IN YOUR AD AND WE WILL PUT IT IN TYPE FREE, so you can see how many lines it will fill. Address all letters, BREEDERS DIRECTORY, MICHIGAN BUSINESS FARMER, MT. CLEMENS, MICH.

CLAIM YOUR SALE DATE

To avoid conflicting dates we will without cost, list the date of any live stock sale in Michigan. If you are considering a sale advise us at once and we will claim the date for you. Address, Live Stock Editor, M. B. F., Mt. Clemens.

May 9—Guernseys, Wigman & Suroto, Holt, Michigan.
Oct. 18—Holsteins, Howell Sales Company of Livingston County, Wm. (Gen'l) Sec'y, Howell.

SHORTHORNS

Richland Shorthorns

SPECIAL OFFER: Two choicely bred cows. One roan—One white—One with bull calf at foot by son of IMP. Rodney. This show stock of real caliber and great foundation material. A bargain at the price.

C. H. Prescott & Sons.

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

SHORTHORNS

Home of Merry Commander, Junior Champion at the recent International. Now is the time to buy. We have several young cows and heifers, bred to this wonderful bull, for sale. Also, several bulls and heifers of breeding age, from our other noted sire, Perfection. Hair 3rd. Visit or write us at once.
S. H. PANGBORN and SONS, Bad Axe, Mich.

RAISE SHORTHORNS WITHOUT HORNS Like Kelley does. U. S. Accredited Herd No. 28945. For description and price write, L. C. KELLY & SON, Plymouth, Michigan.

FOR SALE: SHORTHORNS: 5 YEARLING Heifers, 2 calves, 1 bull calf, selected for beef and milk. Farmers prices.
Alfred L. Priemer, R. 4, Harbor Beach, Mich.

HOLSTEINS

Net Profit!



Every man who milks cows for a living knows that net profit—income over labor and feed costs—determines the value of a dairy herd.

Holstein Herds Assure Net Profit—

through large, economical production of milk and butter-fat, regular crop of healthy calves, greater salvage value from animals after milking days are ended.

Holsteins Will Increase Your Net Profit

Let Us Tell You the Story of the Holstein Cow.

EXTENSION SERVICE,
The Holstein-Friesian Association of America,
230 East Ohio Street, Chicago, Ill.

HOLSTEINS

DAIRY and LIVESTOCK

MARKETS WANT LIGHTER WEIGHT LAMBS

THE number of heavy, fed lambs weighing from 45 to 50 pounds dressed weight marketed during recent months has been considerably in excess of the demand. An investigation recently made by the Bureau of Agricultural Economics, United States Department of Agriculture, to determine the reasons for the discrimination against heavy lamb developed the fact that hotels, restaurants, railroad dining car systems and steamship lines are able to utilize heavy lamb cuts to advantage, but that the average housewife, with a small family considers lighter weight cuts more economical for family use.

As a result of improved breeding for the production of wool and mutton, flocks in general have increased somewhat in average weight. Producers complain that they are unable properly to furnish lambs for the market under 90 to 100 pounds, which means a dressed carcass weighing from 45 to 50 pounds. On the other hand, consumers' preference has turned toward lighter cuts of all classes of meat, and for this reason heavy lamb has been at a disadvantage. The additional amounts of fat found on heavy lamb cuts is also responsible for some of the prejudice against this class of meat, as lamb fat is not relished by most meat consumers.

A cutting test was recently made by the department on five light and five heavy lambs of good grade. The light lambs averaged 33 pounds and sold at wholesale at 26 cents per pound. The heavy lambs averaged 45.80 pounds and brought 24 cents per pound wholesale. The price of the light lambs therefore was \$8.58 and that of the heavy lambs \$10.99. In other words the heavy lambs were worth \$2.41 more than the light lambs on a carcass basis. The carcasses were divided into the usual wholesale cuts, namely rattles, racks and saddles, and the percentage weights of these cuts were practically the same in both instances.

The rattles, consisting of the shoulder, neck and breast, and the racks, of 8 ribs, were valued at 12 cents and 4 cents per pound respectively in both cases. However, the saddles consisting of the leg and loin, sold at 34 cents per pound when cut from the light lambs, while the heavy saddles sold at 30 cents per pound. The higher prices which retailers were willing to pay for the former is due to the consumers' preference for light legs of lamb.

Retail prices at cash and carry and credit and delivery markets during the same period were as follows: Legs 35c-45c per pound, loin and rib chops 45c-60c, breast for stewing 10c-15c, shoulders 20c-25c. These prices represent the general range covering retail cuts from light and heavy lambs.

Most retail dealers who cater to family trade are averse to purchasing heavy lamb except in limited quantities on account of the difficulty of disposing of the legs. The greatest demand is for legs of lamb weighing from 5½ to 6 pounds. These are obtained from lambs weighing from 33 to 35 pounds dressed weight, whereas a 45 to 50 pound lamb produces a leg weighing 8 pounds or more. Some retailers have attempted to solve this difficulty by cutting off enough chops or steaks from the leg to reduce it to the most desired weight, and others have made price differentials amounting to fully 6 cents per pound in favor of the heavy legs, without being able to materially widen the outlet.

Forequarters, which are used for stews, roasts and shoulder chops, can easily be divided into cuts of any desired weight, and for this reason little distinction is made in prices between light and heavy rattles, unless the latter are excessively fat. Furthermore, little difficulty is experienced in disposing of the racks when cut into rib chops. However the housewife who plans to purchase a certain number of chops for a certain number of people, dislikes to buy an extra pound or more of meat at present prices to provide the requisite number of chops. This has had the effect of reducing somewhat the sale of heavy chops, although

not to the extent of causing a material difference in price, as chops are in fairly good demand most of the time.

The tendency toward lighter cuts of meats is not confined to lamb. As a result of the demand from consumers for lighter cuts, the average weight of beef cattle marketed has been tending lower for the past several years. Beef producers have recognized this and have changed their methods of marketing accordingly.

Apparently the problem for the lamb producer is to determine whether he will realize the greatest net return by marketing his lambs at an earlier age and at lighter weights thereby obtaining a higher price, or by producing heavier lambs and trusting the increased weight to compensate for the lower price per pound which he will have to accept.

RUSSELL BROTHERS' SALE OF ABERDEEN ANGUS

ALTHOUGH our sale did not break any records for high prices, we feel that it was above the average made by a good many pure bred sales held in the last year. A average of \$128.00 per head was made on females. Hall Orchards, Inc., of Belding, Michigan, took the largest allotment and tops of the sale. The remainder went to Gratiot, Isabella and Saginaw counties to found new Aberdeen-Angus herds. We have every reason to believe these cattle will do good in their new homes and create a demand for more Aberdeen-Angus. Thanking you for the good work, our advertisement in your paper did for our sale and assuring you our patronage in the future, we beg to remain, Russell Bros., Merrill, Mich.

GRATIOT LIVE STOCK ASSOCIATION FORMED

PERHAPS the most concerted move ever attempted in Gratiot county to put the county at the top of the list as a good livestock center was started at the Farm Bureau office in Ithica, Saturday, March 17th, when the Gratiot Live Stock Breeders' Association was formed. Original intent of the meeting was only to find out the sentiment of the breeders toward a general organization. The discussion brought out so many benefits possible that an organization was effected and committees appointed to promote the various activities desired.

VETERINARY DEPARTMENT

TREAT HOUND FOR BEALED EARS

What will it be necessary for me to do in treating a hound for bealed ears? He wants his ears ruffer and they irritate him very much.—E. S., Winegar, Mich.

—Wash and disinfect ears thoroughly, dry and apply zinc oxide ointment to bealed parts and then apply a bandage loosely over the head to keep the hound from shaking the ears until they are well. It will be necessary to repeat the treatment daily.—Prof. John P. Hutton, Dept. of Med. & Surg., M. A. C.

CASE INCURABLE IF OF LONG EXISTENCE

I have a two year old heifer that is out in both stifles and I don't want to kill her if I can do any thing for her.—C. M., Macomb County, Mich.

—You do not say how long this condition has existed. I judge from however, that is a chronic condition. If so, it is incurable. The best thing to do would be to send the heifer to the butcher at once.—John P. Hutton, Assoc. Prof. of Surg. and Med., M. A. C.

COLT BOTHERED WITH LICE

I have a three year old colt and I curry and brush him every morning and for the past month he is troubled with lice. Will you please tell me some good remedy.—G. M., Bay City, Mich.

—Lice are blood-sucking parasites. Each of the domestic animals harbors its own species. Occasionally lice will pass from one host to an-

FOR SALE—HOLSTEIN BULL CALF, BORN March 8th, 1923. Color nearly white. Fine individual. Dam just completed record of 26.26 lbs. butter and 543.3 lbs. milk in seven days as a senior three years old. Sires dam 22.74 lbs. butter in seven days. First check for \$75 takes calf with papers complete.
F. R. HOWARD, R. 3, Ionia, Michigan.

YEARLING BULL BARGAIN—DAM A 25 LB. Junior 4-year-old Pontiac Komitche-King Sire breeding. Sire 32 lb. grandson of 35 lb. Michigan Champion. Calf well built, nicely marked. Pedigree noted. Pedigree photo and bargain price on request.
RUSSELL JONES, White Pigeon, Michigan.

4 EXTRA FINE BULL CALVES ALL BORN in January. From heavy milking Dams and Sires by "Homo King Regis Pontiac Komitche." Sired T. B. tested. Bargain prices to move quick. Write today. Pedigrees free.
SCHAFER BROS., R. 4, Oxford, Michigan.

FARMINGTON FARM, VASSAR, MICHIGAN. Holsteins, registered fully accredited 22% to size. Write your want.

GUERNSEYS

FOR SALE—REGISTERED GUERNSEY HEIFERS at reasonable prices, also choice bull calves of May Rose breeding.
M. W. WAGMAN, Lansing, Mich., Box 42.

MASSAQUE GUERNSEYS, A NEW CROP of calves coming soon. No females for sale. Order your new bull calf A. R. Sire and Dam.
A. M. SMITH, Lake City, Michigan.

FOR SALE: MAY ROSE GUERNSEY BULL Calf. Born on Nov. 20, 1922. Dam on A. R. Test. National Accredited Herd.
CLAUDE BROTHERS, Camden, Michigan.

GUERNSEYS—Registered Bull Calves, Cheap also grades. Best of breeding for production and size. George Danken, North Manchester, Indiana.

REGISTERED GUERNSEYS—FEMALES AND Bull Calves. A. R. Sire and Dam. DR. W. R. BAKER, 4809 West Fort St., Detroit, Michigan.

ANGUS

WE HAVE SOME FINE YOUNG ANGUS BULLS from International Grand Champion Stock at reasonable prices. E. H. KERR & CO., Addison, Mich.

JERSEYS

Jersey Breeders Attention!

DO YOU WANT A YOUNG BULL OUT OF A Silver Medal Sire and R. O. M. Dam? Good looking individuals, priced to sell. Photos and prices on application.
Samuel Odell, HIGHLAND FARM, Adolph Hees, Owner, Shelby, Mich. Farm Supt.

REG. JERSEYS, POIS 99th OF H. F. AND Majesty breeding. Young stock for sale. Herd fully accredited by State and Federal Government. Write or visit for prices and description.
GUY C. WILBUR, Belding, Mich.

HEREFORDS

HEREFORDS

Young Cows with calves by side consisting of blood from America's foremost herds at prices that enable them under Earle's Hereford Beef Plan to pay for themselves within a year to 18 mos. Bulls including prize winners at the larger shows at practical prices. Herds headed 1189788, one of two sons of the famous Disturber.
by Straight Edge
Perfection Fairfax out of a daughter of the famous Disturber.

T. F. R. SOTHAM & SONS
(Herefords since 1839) Saint Clair, Mich.

HEREFORDS FOR SALE. SEVEN CHOICE yearlings and heifer calves and seven yearling bulls sired by Wyoming 9th International Prize winner. Farmers' prices. Herd established in 1860 by Gov. H. H. Crapo. Write for information.
CRAPO FARMS, Swartz Creek, Michigan.

REPEATER BRED HEREFORDS. YEAR Bulls, price \$75.00. Good individuals.
JOSEPH FELDPAUSCH, Fowler, Michigan.

BROWN SWISS

FOR SALE: BROWN SWISS BULL, TEN Months old. Carries the blood of Colage Brava 2nd. FRANK POET, R. 3, Clare, Michigan.

Registered Brown Swiss Cow For Sale. 8 yr. old, to freshen May 10. Splendid milker. T. B. tested. Price \$180. Dewey Hartley, Kalkaska, Michigan.

REGISTERED BROWN SWISS CATTLE FOR Sale. Bull, cows and calves. For information write, ED. CRISWOLD, R. 1, Betts, Mich.

RED POLLED

RED POLLED CATTLE—A few choice bulls and heifers for sale.
ROYSTON STOCK FARM,
Will Cottle, R. R. 1, West Branch Michigan

AYRSHIRES

FOR SALE—REGISTERED AYRSHIRE bulls and bull calves, heifers and heifer calves. Also some choice cows.
FINDLAY BROS., R. 5, Vassar, Mich.

SWINE

DUROCS

THE BEST FALL DUROC PIGS IN MICHIGAN is at Michigan Farm, Pavilion. They are sired by State Fair winners of Sensation and Pathfinder breeding. Sept. pigs tall and growthy weigh from 200 to 240 lbs. Oct. pigs 165 to 200 lbs. Priced to move in a hurry.
MICHIGAN FARM, Pavilion, Michigan.

Duroc Jersey Bred Sows and Gilts

Plenty of size bone and quality. April and May farrow, bred to grandson of International Stock Show Champion.

JOS. SCHUELLER, R. 2, Weldman, Michigan.

HILL CREST DUROCS, PERRINTON, MICH. We are breeding twenty sows and sixteen gilts to a son of GREAT ORION SENSATION. Long leg, spring and fall born. NEWTON & SLANK, Farm 4 miles south of Middleton, Gratiot Co., Mich.

PEACH HILL FARM offers choice weanling Duroc pigs, either sex. Priced very reasonable. Write us.
HAYWOOD BROS., Rome, Mich.

\$10.00 FOR A DUROC PIG FALLOWED IN March, shipped in May. Express paid. Registered free. Write for pedigree.
D. W. SUTHERLAND, Grand Lodge, Michigan.

other of a different species. Chicken lice will attack horses and human beings. A two per cent solution of creolin rubbed well into the skin with a brush is good treatment, a warm day, however, needs be selected for a treatment of this kind. If the calf has a heavy hair coat have him clipped then apply above treatment.—John P. Hutton, Assoc. Prof. of Surg. & Med., M. A. C.

THE EXPERIENCE POOL

Bring your everyday problems in and get the experience of other farmers. Questions addressed to this department are published here and answered by you, our readers, who are graduates of the School of Hard Knocks and who have their diplomas from the College of Experience. If you don't want our editor's advice or an expert's advice, but just plain, everyday "business farmer" advice, send in your question now. We will publish one each week. If you can answer the other fellow's question, please do so, he may answer one of yours some day! Address: Experience Pool, c/o The Business Farmer, Mt. Clemens, Mich.

CURE FOR COW POX

In your issue of March 17th, V. B. Dryden wants a cure for cow pox. I have been in the dairy business for 25 years and find the following a sure cure: Take well salted butter and put in enough carbolic acid to singe the scores. Apply to the scores and it will heal them up and kill the germ. It is also good for barnyard itch or ring worms, but do not use quite as much acid.—H. E. Coblenz, Charlevoix County.

REMOVING WARTS

I read in the Business Farmer of March 17th about removing warts on cattle. Several years ago I had a fine heifer that had warts on the side of her head covering a space as large as a saucer. I removed them inside of four weeks by greasing them four or five times with castor oil. It will not leave any scars.—W. L. Hersha, Charlevoix County.

TO CURE HENS OF EATING EGGS

"How can I keep my hens from eating eggs?" was asked in a recent issue. I am not an inventor but have made a great many useful articles and here is one. Take an old cheese box, bore a 2 1/4 inch hole in the center of the bottom. Then take some straw or old burlap (burlap is better) and put it around the edge of the inside of the box. Take 6 or 8 strips of burlap and tack one end of each strip to the top of the box and the other to the edge of the hole. The strips are to be placed at an even distance from each other around the edge of the box. When you have this completed take a piece of burlap a little larger than the top of the box and cut a hole in the center large enough to allow an egg to pass through easily. Then place the burlap across the top of the box allowing the center to sag until it touches the bottom of the box with the hole in the burlap coming directly over the one in the box. Tack the edge of the burlap to the top of the box and your job is done. Now put the box over a nest where the hens lay and you will laugh to see the hen that lays and eats her eggs when she looks for the egg and cannot find it.—C. E. S., Glennie, Mich.

ANOTHER WART REMEDY

I know from my own experience that warts on a cow can be cured and are not very hard to cure either. Just take a pair of sheep shears and clip off the tops of warts and apply a mixture of sulphur, castor oil and salt. Sulphur and salt equal parts and enough castor oil to make a paste just thick enough so it will not run. Apply this every third day and within six weeks you will find all your warts will be gone.—Alex Bruce, Huron County.

The insurance man was putting questions to a former cowboy, as he wrote out his application.

"Ever have any accidents?"

"No," was the reply.

"Never had any accidents in your life?"

"—ope. A rattler bit me once, though."

"Well, don't you call that an accident?"

"Hell, no! He bit me on purpose!"

Wanted—General office position by young married man with five years experience.—Wausau, Wis., Record-Herald.



"As a mortgage lifter the hog has nothing on a De Laval Cream Separator"

"My work as field man for the Wisconsin State Dairymen's Association," says Herman Marx, in a recent letter, "brings me into contact with a great many farmers and a great many separators. Of all the farmers who own separators, I find about 80% of them own a De Laval."

"For close skimming, low upkeep, easy running and long life it is hard to beat a De Laval. I have adjusted a good many separators and I find that the easiest one to adjust is a De Laval."

"A hog has always been called a mortgage lifter, but he has nothing on a De Laval Separator. I have known several instances where the buying of a De Laval

in place of some other they were using saved enough money to pay the interest on a fair sized loan."

—A remarkable tribute to the De Laval Separator, not only because it shows that the majority of experienced farmers in the great dairy state of Wisconsin use and appreciate the De Laval, but because it proves that it makes them money as well.

The present De Laval is the best De Laval Separator ever made. It skims cleaner, lasts longer and is easier to clean and operate than any other. It will pay for itself in a year's time, and is sold on such easy terms that you can use it while it is doing so. See your local De Laval Agent or write us for complete information.

The De Laval Separator Co.

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



DISSOLUTION SALE!

Bon Ayre Farm Guernseys

OWNED BY

WIGMAN & SURATO, HOLT, MICH.

May, 9th, 1923

65 Head of high class, pure bred GUERNSEYS 65

This great herd of cows, several with fine official records, together with their offspring, make an aggregation that has rarely been placed at the disposition of the buying public through the medium of the auction sale ring.

Included will be 20 daughters of Uplands Monarch of the May, a grandson of Ne Plus Ultra out of Ellen May Queen of Glenmore with 16369 lbs. milk and 816 lbs. fat. All females of breeding age are bred to May King's Prince of Bon Ayre (1st at Mich. state fair 1921), a son of Uplands Monarch out of Gala of Weston with 13545 lbs. milk and 760 lbs. fat.

For catalogue, address

H. W. WIGMAN

LANSING, MICH.

O. I. C.

O. I. C. BIG TYPE GILTS FALLOWED MAY 15th, 22 weighing 300 lbs. Bred to Leighty Monster, an outstanding boar. We have been breeding and shipping O. I. C.'s for 20 years. NEWMAN'S STOCK FARM, Marietta, Michigan.

REGISTERED O. I. C. BRED GILTS FOR sale. Weighing 250 lbs. A few fall born. J. R. VAN ETTEN, Olford, Mich.

CHESTER WHITES

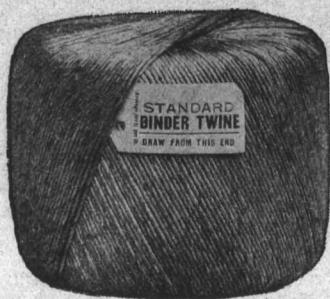
CHESTER WHITES All sold out of bred sows, but will sell hard born No. 107095 far. Nov 1, 1921. Assure breeder with large litters. Price \$50. Also looking orders for Mar. 1st. Boar pigs for Apr. delivery. Will ship O. I. C. D.
WILBUR JONES, Rome, Michigan

Other Livestock Ads. on Page 31.

MR. FARMER!

Mr. Dealer Mr. Jobber

IT
Is
THE
BEST



THE
PRICE
IS
RIGHT

Are you remembering in purchasing your binder twine that you have a factory of your own at Jackson?

It is making the best twine that can be placed on the market and has a mixture of fiber this year. Manila is added to the sisal to give extra strength.

The State Farm Bureau and other organizations and dealers of the state are in position to handle your twine. If they do not, write direct for prices as we want you to use your own twine as we make 14,000,000 lbs. more than Michigan can use.

Michigan State Prison

HARRY L. HULBERT, Warden
JACKSON, MICH.

PETOSKEY Potatoes

"Rural Russets"
King of the Late Potatoes!
Resists heat, drought and disease.

Potato producers growing for market or home consumption are paying 100% production costs for 65% crops. Disease takes the other 35%.

Some diseases can be controlled by spraying—some by seed treatment—but others, some of the worst, can be controlled only by planting disease free seed.

Michigan certified seed potatoes are the best insurance for 100% production.

Safe requirements for certification and rigid inspections eliminate diseases.

If your Local Cooperative Association or County Agent cannot take your order write to

Michigan Potato Growers' Exchange
Cadillac, Michigan or

Michigan State Farm Bureau
SEED DEPARTMENT
Lansing, Michigan

Get Jim Brown's new FACTORY PRICES

Write quick for my big new book of money-saving factory prices on highest quality Fences, Gates, Steel Posts, Paints, Roofing.

FREIGHT PREPAID

Don't pay a penny more than Jim Brown's factory prices. Highest Quality, backed by guarantee. Write for 104-page money-saving bargain book.

Brown Fence & Wire Co., Dept. 3902 Cleveland, O.

Only \$2 DOWN ONE YEAR TO PAY

\$44 Buys the New Butterfly Jr. No. 23

Light running, easy cleaning, close skimming, durable, EASY TO CLEAN.

NEW BUTTERFLY Separators are guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 5 1-2 shown here; sold on 30 DAYS' FREE TRIAL and on a plan whereby they earn their own cost and more by what they save. Postal brings Free Catalog Folder. Buy from the manufacturer and save money.

ALBAUGH-DOVER CO. 2260 Marshall St. Chicago

GALLOWAY'S BIGGEST BARGAIN

On cream separators. A tried, tested, high quality separator. Famous for close skimming, modern improvements, economical operation, at a price that makes the Galloway the world's greatest bargain. **CASH OR CREDIT.** PAYMENT PLAN makes it easy to own a Galloway. Write today. **WILLIAM GALLOWAY CO.** Dept. 363 Waterloo, Iowa

HOISTS FOR FORD TRUCKS \$27

Fully Guaranteed. We pay the Freight, Circular Free. Dependable Mfg. Co., Streator, Ill.

Raise Silver Foxes

Most Profitable Livestock.

We sell outright or for monthly payments within your reach. Write NOW.

SILVERPLUME FOXES
Box B-31 Keeseville, N. Y.



Give your potato crop the right start by planting the best seed.

Better Potato Prices Expected This Year

IT is not my intention to pose as an expert nor as a large grower with a lifetime of experience; but I have raised a good many potatoes over a period of several years and it is my opinion that given a normal season and careful attention the 1923 potato crop will again be on the profit side of the grower's ledger.

There will surely be a considerable decrease in acreage this year unless human nature has subjected itself to great and sudden change.

The enormous increase in acreage in 1922 was due obviously to the nice profits obtained by the 1921 grower, and a general feeling that in the face of the disastrous year of small grain anyone who planted potatoes would just as surely take a good profit for his trouble.

Farm papers and near farm papers were full of propaganda, devoting page on page to potato profits, potato culture and seed treatment, grades and what not, until everyone was willing and anxious to snuggle and cuddle up to the winsome spud.

I know of those whose experience was limited to about a couple of rows grown in the garden, plunging in with anywhere from 20 to 60 acres. This may not sound so much to some; but if it is properly and thoroughly done it is undoubtedly "a right smart of a chaw" for those who have yet to cut their wisdom teeth on the ring of experience.

I feel it is safe to opine that, in the face of the high cost of production on last year's crop, the difficulties encountered in transportation and the continued demoralized condition of the market, we will have with us this year very few of last year's fledglings.

For the same reasons, the regular grower who expanded his operations last year will likely drop back to his normal acreage again.

There are many old saws current among us, some wise and some otherwise. One that I have heard many times, most emphatically belongs to the latter class: "Oh! if you can get two bits a bushel you can make a little money on spuds." If this were ever true, it is certainly obsolete under present conditions and methods of culture.

What with scab, wilt and bugs common in all sections, and the blight rapidly encroaching on our territory, 25 cents per bushel falls considerably short of paying for pro-

duction. With all the material, machinery and labor involved in protecting the crop from pests and diseases, comes a much heavier production expense than was the case when the country was new and spraying and treating were not necessary. The coming of these pests also greatly increased the chances of failure.

Under the conditions existing here in the north central part of South Dakota, where the yield will hardly average 90 bushels to the acre, I hardly think a real profit will materialize much below 75 cents per bushel. When I say profit, I have in mind more than merely getting the cost of production along with ordinary wages for the labor involved. No one takes longer chances than the farmer, and few average businessmen have anything like as much capital invested as has the average land-owning farmer. By the same token, few deserve the same margin of net profit that he should have for bucking these long chances.

While the potato grower is undoubtedly a great gambler, he certainly is not in all cases a good one, as there always has been and probably always will be many who will quit while they are losers and a great many more who in spite of all experience and advice to the contrary, will continue to quit one year and plunge the next in a hopeless attempt to be always on the right side of their pocketbooks.

Another old saw that is current with all, has been handed down from our grandfathers' day and is just as applicable today as the day it was coined: "When everyone else runs, stand still." It is the grower who stays in the game year in and year out who plants potatoes on a plan consistent with the rules of common sense. He knows that over a period of years the good crops will certainly outweigh the bad and when there are any grapes he is there to pick them while the picking is good. It is the guesser, the plunger, and the spasmodic planter that spoil the game for themselves as well as everyone else.

I doubt if any grower ever lost money in a period of five straight years. If we will all do the sensible thing, the conservative and the consistent thing, there should be a nice feeling of satisfaction among us all after shipping time next fall.—J. H. Piercy.



Two Beauties.

White Diarrhea

Remarkable Experience of
Mrs. C. M. Bradshaw in Pre-
venting White Diarrhea

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

"Gentlemen: I see reports of so many losing their little chicks with White Diarrhea, so thought I would tell my experience. I used to lose a great many from this cause, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 687, Waterloo, Iowa, for their Walko White Diarrhea Remedy. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after giving the medicine and my chickens are larger and healthier than ever before. I have found this company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

Cause of White Diarrhea

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

Never Lost a Single Chick

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

Never Lost One After First Dose

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

You Run No Risk

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

WALKER REMEDY CO., Dept. 687
Waterloo, Iowa.

Send me the () 50c regular size for () \$1 economical large size package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to instantly refund my money if not satisfactory 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 desired. Large package contains nearly three times



POULTRY

POULTRY MORE THAN MERE
SIDELINE

THE day of the hit-or-miss method of handling poultry in the United States is over. The farmer considers his wife's chickens as something worth while. Many a farmer has paid his grocery bills the last two years with the returns from the flock of hens that he once looked on as his wife's fad. Today this same farmer is looking for better stock. He says that with good pure-bred stock he can always get the market for his eggs and surplus birds. However, he finds it difficult to supply the demand for this class of stuff at several times the market price. He has found, too, that there are several things that enter into the poultry business that make it interesting, as well as profitable.

Several years ago E. Philo of Elmira, New York, published a book on how to raise poultry on a fifty-foot lot. Since that book first came out there have been several proved tests that the old idea the hen has to have large runs is not altogether correct. Some of our foremost poultrymen of California and the East claim that better egg production is obtained if the hens are confined to pens. Some are using an eight-foot-square pen to care for fifteen hens, or a twelve-foot-square space to accommodate fifty hens. There is one man at Riverdale, California, that has 2,500 hens on one acre that earned \$2 per head, last year.

The whole year's profit on an egg farm depends on the kind of chicks and the way they are brooded. Chicks must be from hens not less than two years old, mated to males whose ancestry has been bred for vigor and heavy egg production for generations. Without a vigorous, well-bred chick to start with, nothing can be accomplished. Too many baby chicks are cast upon the beginners that are hatched from pullet's eggs. Nine times out of ten this means disaster right from the start.

After securing good chicks the next step is to brood them properly. I believe the one great mistake in brooding chicks is to put too many together. Nature never intended for 500 to 1,000 chicks to be raised together. Best results are obtained with not over 150 chicks in one flock. It only takes six weeks to brood chicks and poultrymen would find it more profitable to spend more time on quality instead of on quantity. Better take more time and care the first six weeks than to have an inferior bunch of poultry on your hands for the balance of the year. There is a knack in brooding chicks which requires time and study and the more you can give it the greater the success. Good, well-bred from correct matings, not over 150 together in brooders with no foul corners, cleanliness, and good balanced feeds are sure to bring success.

Growing is more than a matter of mere energy relations. It is associated on the one hand with the factors of heredity and evolution, and on the other hand with the factors of environment. The first is sometimes spoken of as the internal factor and the latter as the external factor. As S. D. Wilkins puts it, pronounced results in modifying the external factors is perhaps more quickly realized than in the consideration of the former factors.

While, then, it is important for the breeder to utilize every source of improvement in growing his birds, the part played by the exercise of the external factors warrents much attention and study. At the outset we must realize that neither of these factors are independent of the other.

External Factors

The external factors are represented by such conditions as climate, habitat, temperature, air, food, water, soil, use, and disuse. Without doubt the most important of these is the question of the food supply and since the supply of food cannot stimulate growth beyond the limits predetermined by the internal or growth impulse factor, the importance of understanding fully the feed requirements during the period of growth is at once apparent.

In general, poultrymen consider the nutritive requirements of poultry as being satisfied when the ration

A Better Cutter for Less Money

YOUR dollars buy more when invested in the 1923 Papec. It has positive-action Self-feed that saves a man at the feeding table. Also other important improvements. Retains the simple, sturdy Papec construction that means long life. Tremendous production in a specially-equipped factory enables us to offer

The 1923

PAPEC
Ensilage Cutter
at a New Low Price

You can depend on the Papec for long, hard service. Ames Bros. of Weaver, Minn., write: "We are still using our N-13 Papec after nine years of service and it is going strong." Hook up a Papec to your Fordson or other light tractor. Even a farm gas engine 3 h. p. and up will run our smaller sizes.

SAVES
ONE
MAN

PAPEC MACHINE COMPANY

178 Main Street, Shortsville, New York

36 Distributing Houses Enable Papec Dealers to Give Prompt Service



**Catalog and Farm
Account Book FREE**

Our new Catalog pictures and explains the improved 1923 Papec. Write for it. If you will also tell us the size of silo you own or intend to buy, and the name and address of your dealer, we will include with catalog our 50-page Farmer's Record Book free. A few entries weekly will show you the profit or loss in any branch of your farming business. Send data for both books today.

High Producing Vigorous Purebred BabyChicks

Capacity 150,000 healthy chicks
at a setting



Fully guaranteed, direct from Trapnested, Pedigreed Tom Barron and Hollywood Imported White Leghorns. World's champion layers. Not just a few 300-egg birds, but a high flock average egg production—that's where you make your profit. Hatched in the largest and finest Hatchery in Michigan, by those who know how. Bargain prices if you order now. We can also save you money on Brown Leghorns, Anconas, Barred Rocks, Rhode Island Reds and White Wyandottes. Satisfaction guaranteed or your money back.

Handsome, complete catalog free for the asking. Write for it today.

SUPERIOR POULTRY FARMS, Dept. 104 Zeeland, Mich., U.S.A.



Attractive Chick Investments

FROM SELECT PURE-BRED FLOCKS

WHITE and BROWN LEGHORNS, ANCONAS, 50, \$7.50; 100, \$14; 500, \$65. BARRED ROCKS, REDS and MINORCAS, 50, \$8.50; 100, \$16.50; 500, \$75. Discount on orders of 1,000 or more. From extra select flocks \$2 per 100 higher. Postpaid to your door. Full live count guaranteed. Bank reference. Free Catalog. We know it will be to your advantage to get our catalog and full price list before making a final decision regarding your investment in Chicks this season. Send for it TODAY.

COLONIAL POULTRY FARMS Box B, Zeeland, Michigan

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The Michigan
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(Effective April 2nd, 1923)

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FROM HOGAN TESTED, FREE RANGE HEAVY LAYING FLOCKS. ALL VARIETIES.
WHITE, BROWN and BUFF LEGHORNS and ANCONAS. \$13.00
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All lots of 500 or more discounted.

EXTRA SELECTED FLOCKS. \$2.00 per 100 higher.
Postpaid full live delivery guaranteed. Hatched by the most modern method of incubation from good, vigorous, pure-bred varieties carefully selected and safely packed. No catalogue. Order right from this ad and save time and disappointment. Reference Chesaning State Bank or any business in Chesaning. Address BABION'S FRUIT AND POULTRY FARM, Guy L. Babion, Prop., Chesaning, Mich.

Karsten's --Quality Chicks-- Farm

that will lay and pay. The famous BARRON STRAIN ENGLISH WHITE LEGHORNS, ANCONAS and BROWN LEGHORNS QUALITY BABY CHICKS CAN NOW BE PURCHASED AT PRICES UNHEARD OF BEFORE. SEND FOR CATALOG IT TELLS HOW AND WHAT TO FEED YOUR POULTRY FOR PROFIT. REMEMBER WE SHIP DIRECT FROM THE KARSTEN'S FARM, Zeeland, Michigan, Box 102.

300,000 Chicks Guaranteed Michigan Bred and Hatched

ENGLISH WHITE and BROWN LEGHORNS, 50, \$7; 100, \$13; 500, \$60. BARRED ROCKS, R. and S. C. REDS, 50, \$8.50; 100, \$16; 500, \$75. 1,000 orders at 500 rate. Postpaid, full live delivery guaranteed. Strong, vigorous chicks from heavy laying flocks. Order right from this ad. WE SATISFY OUR CUSTOMERS. Catalog free. Reference: Holland City State Bank.

KNOLL'S HATCHERY, Box 1, Holland, Michigan



TIMMER'S HATCHERY



PROFIT-MAKING CHICKS
WHITE and BROWN LEGHORNS
ANCONAS
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QUALITY CHICKS at REASONABLE PRICES. Bank reference.
TIMMER'S HATCHERY, Route 3A, Holland Michigan.

Hardy, healthy chicks from selected, heavy-laying flocks. Carefully packed and shipped. Post paid to your door, and full live count guaranteed. Send for our new, free catalog TODAY.

CHICKS, \$10 per 100 and up Postpaid to your door and full live count guaranteed

WHITE, BROWN and BUFF LEGHORNS. \$7.00; 100, \$13.00; 500, \$60.00. BARRED ROCKS, BLACK MINORCAS and ANCONAS. \$8.00; 100, \$15.00; 500, \$72.00. 1,000 orders at 500 rate. Postpaid, full live delivery guaranteed. Strong, vigorous chicks from heavy laying flocks. Order right from this ad. WE SATISFY OUR CUSTOMERS. Catalog free. Reference: Holland City State Bank.

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Only 7 hours from Grand Rapids. Can reach any point in Michigan in 24 hours.

BRED TO LAY CHICKS

DIRECT from large Modern 65 acre Poultry Farm. Result of ten years of careful breeding for heavy egg production. Winners at leading shows. M. A. C. Inspected and Approved. 100% live arrival guaranteed. Shipped Postpaid. Bank reference. Order at once at these prices or write for Catalog. BARRON ENGLISH WHITE LEGHORNS, BROWN LEGHORNS and S. C. ANCONAS. 100, \$15; 500, \$75.00. 1,000, \$125.00. EXTRA SELECT, 50, \$7.50; 100, \$14.00; 500, \$65.00; 1,000, \$125.00. SELECT, 50, \$8.50; 100, \$12.50; 500, \$60.00; 1,000, \$115.00.

TOWNLINE POULTRY FARM, Box 27, Zeeland, Michigan



GUARANTEED RURAL CHICKS

EXCEPTIONAL VALUES IN HIGHEST QUALITY, proven layers. Pure-bred S. C. Barron White Leghorns, Heavy Laying Brown Leghorns, Select Anconas. Heavy Winter Layers. Result of constant breeding for high flock averages. Buy direct from large modern hatching and breeding institution. All stock scientifically culled and approved and headed by large vigorous males. New low prices. Sent postpaid. 100% live delivery guaranteed. Write for fine 1923 catalogue. Its free. Reference: Two Banks.

RURAL POULTRY FARM, DEPT. B. R. 1, ZEELAND, MICH.



DeKoster's Hatchery



Strong, vigorous Chicks from selected heavy laying ENGLISH STRAIN WHITE LEGHORNS and BROWN LEGHORNS. 100, \$12.50; 500, \$60. THOMPSON & HOLTERMAN STRAIN BARRED ROCKS and ANCONAS. 100, \$15; 500, \$75.00. Postpaid, full live delivery guaranteed. Catalog free. Bank reference.

DE-KOSTER'S HATCHERY, Box X, Zeeland, Mich.

BABY CHICKS



Hatched from strong and vigorous flocks of ENGLISH WHITE LEGHORNS and ANCONAS. BRED FOR HIGH EGG-PRODUCTION. We guarantee 100 per cent good chicks on arrival. Postage PAID. Prices reasonable. Instructive Catalog and prices free on request. QUALITY HATCHERY, Box 411, Zeeland, Mich.

White Leghorn CHICKS

Write Quick. Free leaf—Liberal Discount on early orders: World-Famous 255-270 and 280-285 egg strain trapped, pedigreed English-American S.C.W. Leghorns, Heavy Layers. Best Payers. Strong healthy chicks. 100% live delivery guaranteed. P.P. Big catalogue catalog free. KERLIN'S GRAND VIEW POULTRY FARM, Box 43, Center Hall, Pa.



Rheumatism

A Remarkable Home Treatment Given by One Who Had It

In the year 1893 I was attacked by Muscular and Sub-Acute Rheumatism. I suffered as only those who are thus afflicted know for over three years. I tried remedy after remedy, but such relief as I obtained was only temporary. Finally I found a treatment that cured me completely and such a pitiful condition has never returned. I have given it to a number who were terribly afflicted, even bedridden, some of them seventy to eighty years old, and the results were the same as in my own case.

I want every sufferer from any form of muscular and sub-acute (swelling at the joints) rheumatism, to try the great value of my improved "Home Treatment" for its remarkable healing power. Don't send a cent; simply mail your name and address, and I will send it free to try. After you have used it, and it has proven itself to be that long-looked-for means of getting rid of such forms of rheumatism, you may send the price of it. One Dollar, but understand I do not want your money unless you are perfectly satisfied to send it. Isn't that fair? Why suffer any longer, when relief is thus offered you free. Don't delay. Write today.

MARK H. JACKSON

2653 Durston Bldg., Syracuse, N. Y.
Mr. Jackson is responsible. Above statement true.

CHICKS

THAT GROW, LAY AND PAY
Barron English White Leghorns, Brown Leghorns and Anconas.

PURCHASE THIS YEAR'S CROP OF CHICKS from tested layers, headed by large vigorous 260 to 285 Pedigreed Males. CUSTOMERS REPORT BIG PROFITS with these wonderful layers. Write today for our large illustrated catalogue. It tells all about them. It's free.

WINGGARDEN HATCHERY
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Star Hatchery BABY CHICKS

From Select, Vigorous, Heavy Laying Breeding Stock



Prices Reduced

Hatched by modern methods in best machines under our personal supervision. Carefully packed and sent postpaid and 100% live delivery guaranteed. Bank Reference. You take no chances in ordering STAR BABY CHICKS. Place your order now and get them when you want them.
STAR HATCHERY, Box X, Holland, Michigan

ARISTOCRAT



STRAIN BARRED ROCKS. THE WORLD FAMOUS PRIZE WINNING AND HEAVY LAYING STRAIN.

Barron White Leghorns

Splendid, big, heavy weight, heavy laying hens.

Riverlay Brown Leghorns

Beautiful business hen. Wonderful winter layers. Second to none.

Sheppard's Famous Strain

331 egg strain.

From all these great strains. Postpaid and full live delivery guaranteed. Also EGGS FOR HATCHING and Breeding Stock. Reference 2 Banks. Member M. B. C. A.

Fairview Poultry Farm, Route 2 K, Zeeland, Mich.

DAY OLD CHICKS SINGLE and ROSE ISLAND WHITES. Write for Catalogue. Fischer's Hatchery and Poultry Farm, R. 1, Holland, Mich.

includes ingredients coming under these units: Protein, carbohydrates, fat, and ash or inorganic material. It is known that protein is required by the body for the production of muscle, carbohydrates and fat to supply heat and energy and build up stores of bodyfat; mineral water to provide for skeleton development.

Until recent years it was believed that any ration which includes these nutrients in variable amounts depending upon the purpose for which the ration was compounded was adequate. Failure to obtain normal growth was attributed to faulty brooding methods, improperly hatched chicks and numerous other causes.

There has come to the knowledge of the poultrymen a new term, vague perhaps, as to its specific meaning, but withal expressive of something significant. The term vitamin suggested by Casimir Funk in 1911 is used to designate a class of substances found in naturally occurring food-stuffs in variable amounts but lacking in many of the highly milled by-product foods.

The word vitamin is preferred to the phrase, "accessory food substance or food factor" for vitamins are necessary to life and there is no reason why we should argue against the use of the term vitamin or against the vitamin theory simply because no one has seen these substances? We do not know what electricity is other than an invisible agent.

Chemists have never isolated these substances so that their chemical composition might be known. They are known, however, by the effect which their absence in the diet produces on the animal organism and by the effects of adding them to diets that are deficient in vitamins. Perhaps someone in the near future will be able to isolate them in a pure state and determine their chemical makeup. Meanwhile it is advisable that the poultrymen pay more attention to the poultry ration based somewhat on our present knowledge of the vitamins.—J. C. Philo.

PRODUCE INFERTILE EGGS

UNITED States government experts recently conducted an experiment in Kansas to compare the loss from fertile and infertile eggs.

10,000 eggs, collected from different farms, were used in the experiment. Half were fertile and half infertile, and every egg was absolute fresh when it entered the experiment. These eggs were kept stored in parlors, some in kitchens, some in cellars, and some in pantries. Some were put in nests, some under laying hens, and some under setting hens. The same number of fertile and infertile eggs were always put under exactly the same conditions. In a week the eggs were collected and sold to the local grocery store where they were candled. They were then shipped to St. Louis where they were again candled.

While on the farm 29 per cent of the fertile eggs were spoiled for food, as compared with only 16 per cent of the infertile ones. On the way to market 14 per cent of the fertile ones were spoiled as compared with 9 per cent of the infertile. This makes a total of 43 per cent of the fertile eggs unfit for food as compared with only 25 per cent of the infertile ones—a difference of 19 per cent. Notice that the greatest loss in both fertile and infertile eggs is on the farm.

In nature the purpose of the egg is to hatch a chick. Every fertile egg contains the germ from which a chick may develop. Incubation will start in a fertile egg whenever the temperature is more than 7 degrees. The germ from which the chick develops will grow just as well in a hot poultry house or in a cupboard by the kitchen range as it will under a hen. If the temperature falls below 70 degrees or runs higher than 109 degrees, incubation is checked.

Eggs come to market in all stages of incubation. The dealers call eggs which have started to incubate "blood rings," because they show a cluster of blood vessels when placed before the candle.

If an egg which has started to incubate cools, the germ dies. Such an egg, if kept in unfavorable conditions, completely decays, making the "black rot"—the kind of rotten egg which smells so disagreeable because of the hydrogen sulphide gas

BABY CHICKS SEX GUARANTEED

The most Progressive Hatchery in the country

A 60% guarantee of sex, giving a majority of either cockerel or pullet chicks, as ordered, plus unsurpassed quality in high egg bred chicks, bespeaks Utility Hatchery & Farms success, and the satisfaction of its customers. Grade AAA flocks are sired by pedigreed males, sworn records from 250-287. Grade AA and Grade A from tested and selected flocks of exceptional merit.

Delivery date guaranteed—100% live delivery guaranteed—60% sex guaranteed—Satisfaction guaranteed.

The Utility Hatchery & Farms is giving away \$5,000 worth of Stock in Amazing Special Contest. Information on contest sent upon receipt of each S. C. White Leghorn order. Don't delay. Get started now. Order tonight.

Terms cash, except on advance orders, 25% down, remainder one week before shipped.

UTILITY HATCHERIES AND FARMS
Dept. 63
ZEELAND, MICH.

ORDER FROM THESE PRICES

S. C. WHITE LEGHORNS
Grade A. 14c
Grade AA. 15c
Grade AAA. 16c
OTHER BREEDS
S. C. Anconas. 17c
S. C. Brown Leghorns. 17c
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HIGHEST QUALITY CHICKS



Michigan's Old Reliable Hatchery

(The most modern and best equipped Hatchery in the state)

PURE BRED English and American S. C. W. Leghorns; S. C. Anconas; Barred Plymouth Rocks and R. I. Reds. Strong, well hatched chicks from tested Hologized Free range stock that make wonderful winter layers.

Chicks sent by Insured Parcel Post Prepaid to your door. 100% live delivery guaranteed. Fifteen years of experience in producing and shipping chicks has given absolute satisfaction to thousands. Write for illustrated free catalog and price list. Get lowest price on best quality chicks before you buy.
Holland Hatchery, R. 7, Holland, Mich.



WOLVERINE BABY CHICKS

are Chicks That Satisfy

Bred for egg production 13 years. We hatched and shipped chicks for 12 years. This assures you success. ENGLISH TYPE WHITE AND BROWN LEGHORNS. 100% safe arrival guaranteed. Write for catalogue. It's free. WOLVERINE HATCHERY, R. 2, Zeeland, Mich.

Chicks

From select vigorous, heavy laying breeding stock. White, Brown Leghorns, Anconas, Barred Rocks. Our price is 12 cents and up. Guarantee 100% live delivery by prepaid post. Get your order in now. We will ship when you want. Customers report "Big Profits" with these wonderful layers. Write today for Illustrated Catalog. It's free. Reference: State Commercial Savings Bank Member M. B. C. A. Queen Hatchery & Poultry Farm, Zeeland, Michigan

BABY CHICKS

You can now order Chicks in 11 breeds of the Pure Breed Practical Poultry that is making egg records on our customer's own farms. If you want stock that will make real money, send for our description and price list. All stock guaranteed 100% post paid. We want you to try our stock this year. It is the best practical stock you can buy.

STATE FARM ASSOCIATION

202 Chase Block Kalamazoo, Michigan.

Pedigreed S. C. W. LEGHORNS CHIX

Are you going to buy them from a hatchery or from a BREEDER. Buy from Michigan's Largest Leghorn Farm and insure success. We hatch our own eggs only. Supply limited. Prices reasonable. Satisfaction guaranteed.

Descriptive Circular tells all about them. It's free.

SIMON HARKEMA & SON, R. 1, Holland, Mich.

BABY CHICKS

FROM SPECIAL MATINGS
A specialist breeder can furnish better baby chicks. Our ANCONAS are Michigan's leading strain today—both in exhibition and in egg production. WHITE LEGHORNS from a select special egg flock having blood lines of world's greatest layers. We specialize in quality—not quantity. Lowest prices. Write for illustrated catalogue.

PROGRESSIVE POULTRY FARM
Box 1 Holland, Mich.

Day Old Chicks

Strong, sturdy, S. C. White Leghorns (English strain) from large, vigorous, yearling hens, raised on our own farms. That lay and pay. Barred Rocks and Rhode Island Reds, from best laying strains. Send for our illustrated catalog, free.

Hillcrest Poultry Farms and Hatchery
R. R. 2, Holland, Michigan

A NEW DISCOVERY BANISHES LICE

Simply Hang Can of Wonderful
Liquid in Hen House and
Lice Vanish

Any poultry raiser can easily and quickly double his profits by ridding his hen house of lice through the remarkable discovery of H. C. Haist, a Kansas City chemist.



Working along original lines Mr. Haist discovered that certain odors are highly offensive to lice and that they will not live where such odors exist. This enabled him to perfect his formula which is guaranteed to rid any hen house of these blood sucking and profit stealing pests.

This wonderful formula which is known as Lice Doom is easily used by simply uncorking a can and hanging at any convenient place in the hen house. Immediately a powerful gas is given off which, though harmless to poultry, routes the lice as though by magic. In fact it is guaranteed that lice will not stay in any hen house where a can of Lice Doom is hung up to evaporate. Once rid from pestering lice and mites your flock will take on new life. The hens will lay more and the broilers will get fatter. In fact you can almost see your profits grow.

So confident is Mr. Haist that Lice Doom will rid any hen house of lice that he offers to send two large \$1 cans to any reader who will write for them for only \$1; and with the understanding that they cost nothing if not entirely satisfactory.

Send no money—just your name—a card will do, to H. C. Haist, 2017 Coca Cola Bldg., Kansas City, Mo., and the two large \$1 cans will be mailed immediately. When they arrive pay the postman only \$1 and postage. Use Lice Doom 10 days. If your hen house is not free from lice, or for any reason you are not satisfied, simply return the unused part and your money will be refunded. A large Kansas City bank says Mr. Haist does as he agrees, and ample bank deposits guarantee the refund of your money if you are not satisfied. Write today before the offer to send two \$1 cans for only \$1 is withdrawn, as this will enable you to sell a can to a friend and get your own free.

Better than Whitewash



CARBOLA

The Disinfecting White Paint
It takes less than five minutes to mix the Carbola powder with water and have it ready to use as a white paint and powerful disinfectant. No waiting or straining; no clogging of sprayer. Does not spoil. Does not peel or flake. Disinfectant is right in the paint powder—one operation instead of two. Gives better results, costs less. Used for years by leading farms.

Your hardware, paint, seed or drug dealer has Carbola, or can get it. If not, order direct. Satisfaction, or money back. 10 lbs. (10 gals.) \$1.25 and postage; 20 lbs. (20 gals.) \$2.50 delivered; 50 lbs. (50 gals.) \$5.00 delivered; 200 lbs. (200 gals.) \$18.00 delivered; trial package and booklet 50c.

Add 25% for Texas and Rocky Mt. States

CARBOLA CHEMICAL CO., Inc.
810 Ely Ave., Long Island City, N. Y.



WHITE DIARRHOEA

Kills millions of chicks each season. THEY CAN BE SAVED by using "FADOL"—a guaranteed remedy and preventive. \$1 per bottle. Postpaid. Enough to successfully treat 650 chicks. Your money cheerfully refunded if not satisfactory. Bank reference. You take no chances. Send your order TO-DAY and be INSURED against loss. Circulars free. Dealers wanted everywhere.

FADOL REMEDY CO., Box 507, Norwalk, Ohio

KEEP THE BUSINESS
FARMER COMING
SEE PAGE 25

which develops in it. Eliminate the fertile egg and the black rot, the most common and worst kind of rotten egg, will be eliminated.

If we want to use eggs for food, especially in hot weather, we must defeat nature's purpose by producing fertile eggs. Fertile eggs cause trouble only during the hot weather. You can prevent the great annual loss caused by them, if you will dispose of your roosters as soon as the breeding season is over. Experiments show that hens lay just as well, if not better, when there is no male in the flock.

This is such an important subject that the government has issued and distributed thousands of posters explaining how fertile eggs spoil, and urging farmers to dispose of their roosters immediately after the breeding season.

In Missouri, June 1st is set aside as "Swat the Rooster" day, other states are active along the same line.

RADIO DEPARTMENT

EDITED BY J. HERBERT FERRIS

BURN OUT BULBS

We have a complete Radio outfit we purchased as a receiving outfit. It does very satisfactory. It will receive from the middle western states to the gulf of Mexico. We have used it two evenings and burned out two tubes.—F. A., Plainwell, Mich.

—We think that you are burning your bulbs too bright, turn the rheostats down to the lowest point and then gradually light your bulbs until you are just able to hear the music. Your bulbs will last for several hundred hours if they are not burned too brightly.

You also may be using too high voltage for your "A" battery, 6 volts is all that should be used for lighting your filaments, never use more than a 6 volt storage battery or 4 dry cells.

The music does not always come in as loud with your bulbs not so bright you get much longer service from them. I am using bulbs that have been used for over 2,000 hours each and they are as good as new.

BROADCAST BILL'S RADIOLAYS

DURIN' ev'nin's, 'fore its time to go to bed, how I like 'o sit and listen, rubber ear-muffs on my head, to the singin' and the speakin' comin' in my radio; weather don't make any difference—let 'er rain, er hail, er snow. While I'm list'nin' there so peaceful to the music from the air, I kin also get enjoyment in a game of solitaire. I like most a game of canfield, there are others I kin play, but I never knew it had a name until the other day, when a drummer down at Perkin's store explained how it wuz done in those classy gamblin' joints where they don't play jest for fun. You hand out yer fifty dollars, or I guess it's fifty-two, then a gent gives you a deck of cards an' after you are through fer each card up in the ace now he will hand you back five beans—Gosh! I like the game much better, now I've found out what it means. So when wifey goes out callin', leavin' me at home alone I get out a deck of cards an' play there by my radiophone. It combines my fav'rte pastime, an' the time goes by so fast that the clock soon ticks nine-thirty, an' I know my bedtime's past. So I play another hand er two while waitin' fer the time that they broadcast out from Arlington before I start my climb. Sweet Minerva, that's my better half, religiously inclined, hasn't took so very to my habits so I find just because on Sunday ev'nin' when she went in town to church, I said I'd stay at home an' listen—kinda left her in the lurch. That wuz not the only reason, fer while workin' Saturday I had sprained my back most awful loadin' up some bales of hay. So she went to church with Willie—I stayed home to listen in an' I reckon she'd fergive'd me is it only hadn't been. I'd fergot that it wuz Sunday an' wuz playin' solitaire as I listened to the choir, an' the sermon from the air. Min came home an' caught me playin'—I kin tell the Universe when it comes to home made sermons Sweet Minerva ain't so worse. Now I'll sit these cool evenin's 'fore its time to go to bed, an' do nothin' else but listen since Minerva's say is said. Copyright, 1922, Westinghouse Electric and Manufacturing Company.



BABY CHICKS \$10 per 100 and UP

From selected, heavy laying, vigorous hens. White and Brown Leghorns, Anconas, 50, \$6.75; 100, \$13; 500, \$62.50. Barred Rocks, 50, \$5.50; 100, \$11; 500, \$55. Extra Select, \$2 per 100 higher. Mixed Chicks, 50, \$5.50; 100, \$11; 500, \$55. Well hatched in modern machines. Carefully and correctly packed and shipped. Postpaid, full live arrival guaranteed. Bank reference and this guarantee makes you perfectly safe in ordering direct from this ad NOW. Get them when you want them. All orders have our careful personal attention. WE WANT YOUR BUSINESS. Catalog Free.

WINSTROM FARM & HATCHERIES, Box H 5, Zeeland, Michigan

STOP! LOOK! READ!

GUARANTEED BABY CHICKS

From WORLD'S GREATEST LAYERS and LAYING CONTEST WINNERS. TOM BARRON ENGLISH S. C. WHITE LEGHORNS, imported stock. SHEPARD'S FAMOUS ANCONAS. Direct. If we could show you our flocks and have you talk with our CUSTOMERS you would order IMMEDIATELY. Our flocks are all culled by EXPERTS and headed with VIGOROUS PEDIGREED MALES of from 250 to 280 egg strain. Our CHICKS become wonderful LAYERS. You want EGGS? GET our CHICKS. Write to-day for our free illustrated CATALOG.

SILVER WARD HATCHERY, Box 420, Zeeland, Michigan.



4% Months Old
and Laying

DON'T BUY CHICKS

until you get our prices as we can save you money on English Leghorns, Barred Rocks and Anconas, that will lay when egg prices are highest. Mr. M. W. Sellers, Route 1, Saginaw, Mich., writes: "I made better than \$1200.00 last year from 425 pullets in 5 months." Write today for free catalog and our contest offer and our ironclad guarantee. We are breeders and practically about the only so advertised poultry farm in this vicinity.

RIVERVIEW POULTRY FARM, Route 2, Zeeland, Michigan

CHICKS \$12.00 per 100 and Up

100% SAFE ARRIVAL GUARANTEED

PRICES—WHITE, BROWN and BUFF LEGHORNS, 50, \$7; 100, \$13; 500, \$60. BARRED ROCKS, S. C. REDS, ANCONAS, B. MINORCAS, 50, \$8; 100, \$15; 500, \$74. WHITE WANDOTTES, WHITE ROCKS and BUFF ORPINGTONS, SHEPARD'S 331 EGG STRAIN ANCONAS, WHITE MINORCAS, 50, \$8.50; 100, \$16; 500, \$78. MIXED, 50, \$8; 100, \$14; 500, \$50.

Hatched from selected heavy laying flocks that are well fed and cared for, insuring strong, lively chicks that will make a profit for you. POSTPAID TO YOUR DOOR. ORDER DIRECT FROM THIS AD and SAVE TIME. Catalog free. Reference, Geneva Bank.

THE GENEVA HATCHERY, Box 505, Geneva, Ind.

GUARANTEED CHICKS

Hatched from High Laying Quality Fowls on free range, properly fed and housed to insure strong chicks.

BARRED ROCKS, S. C. REDS, MINORCAS, ANCONAS, 50, \$8; 100, \$15; 500, \$74. WHITE WANDOTTES, BUFF ROCKS, 50, \$8.50; 100, \$16; 500, \$78. WHITE, BROWN and BUFF LEGHORNS, 50, \$7.50; 100, \$14; 500, \$65.

Postpaid to your door. 100% live delivery guaranteed. Catalog free. Bank Reference.

MORENO HATCHERIES, Box B, Morenci, Mich. Member I. B. C. A.



Egg-Bred Baby Chicks

ENGLISH WHITE LEGHORNS, BROWN LEGHORNS. 11 years of breeding for egg production. Highest quality chicks from tested layers. Satisfaction guaranteed. 100 chicks \$12.50; 500, \$60.00. From Extra selected matings \$2.00 per 100 higher. Postpaid, 100% delivery guaranteed. Order now. Bank reference. Catalog free.

ROYAL HATCHERY & FARMS, R. 2, Zeeland, Mich. S. P. Wiersma, Prop.

HILLVIEW HATCHERY

GUARANTEED TO ARRIVE



Strong and Healthy. Chicks from selected heavy laying, Hogan tested flocks. ENGLISH WHITE LEGHORNS and BROWN LEGHORNS. Heavy laying EXTRA GOOD BARRED ROCKS. Postpaid to your door and full live delivery guaranteed. Our flocks are kept on free range, properly fed and cared for insuring the vigor necessary in the chicks to live and MAKE A PROFIT. Give us a trial and you will come again.

HILLVIEW HATCHERY, Route 12 E, Holland, Michigan.

BABY CHICKS

Best Paying, Heavy Laying, Pure Bred Tom Barron English White Leghorns, S. C. Rhode Island Reds, Park's Barred Rocks. Strong Healthy Chicks hatched from greatest and best incubator known. Chicks are given full twenty-one days and hatched under proper temperature.

Mr. Frank Puleston, Niles, Mich., writes as follows: "From the 68 pullets we raised from your stock last year along with the thirty which we had, we got 1,610 eggs in December. Can you beat it?"

We are the first and oldest importers of White Leghorns in this state.

Watch our pen number 17 in the Michigan Egg Laying Contest. It's coming strong! All flocks thoroughly culled and properly mated to pure bred cockerels. Try some real chicks this year. Order now at new low prices. Instructive catalogue free.

BRUMMER-FREDERICKSON POULTRY FARM
Box 28 Holland, Mich.

OVIE'S BABY CHICKS

HEAVY LAYING
breeding stock or real quality helps producers. Ovie's strong healthy and husky chicks.

25,000 Thrifty Chicks Weekly
Write for catalog, 11c and up, prepaid, 12 leading breeds. Delivery guaranteed.

Ovie's Poultry Farm and Hatchery
182 Boots Street, Marion, Indiana

QUALITY CHICKS

GET THE PROFITABLE AND LAYING KIND
They will pay you big. Free range. Selected. Hogan test. Orpingtons, W. & Sil Wyandottes, 50, \$12.50; 100, \$18. Rocks, 50, \$12.50; 100, \$18. Red, Minorcas, 50, \$8.25; 100, \$16. Anconas, heavy brothers, 50, \$7.25; 100, \$14. Leghorns, 50, \$7; 100, \$13. Mixed, all varieties, \$11 per 100 straight. Postpaid. Safe delivery. Circular free. Bank reference. Middlepoint Hatchery, Middlepoint, Ohio, Dept. B.

Pure Bred Chicks Buy 'Em Home

Broiler Chix, 11c
W. or B. Leghorns, 13c
B. Rocks or Red, 10c
W. or Buff Rocks, 17c
Wh Wyandottes
Buff Orpingtons, 17c
Light Brahmas, 22c
Black Minorcas, 18c

Add 35c if less than 100 lots wanted. Circular.
LAWRENCE POULTRY FARM
Dept. C Good Reference R. 7, Grand Rapids, Mich.

BABY CHIX

Free Roycroft Book
WHITE LEGHORNS and MOTTLED ANCONAS. Also Black Leghorns, Brown Leghorns, Buff Leghorns, Black Minorcas, R. C. Rhode Island Reds, Barred Plymouth Rocks, White Plymouth Rocks, Silver Wyandottes, White Wyandottes. WE HATCH eggs from Hoganized flocks on free range on separate farms.

Send for 1923 Price List.
CRESCENT EGG COMPANY
Allegan, Michigan.



CHICKS Barron Strain Selected
White Leghorns. Produced under my personal care. Strong, vigorous chicks carefully packed to go safely. Postpaid, full live delivery guaranteed. 50 chicks, \$8.50; 100, \$12.50; 500, \$60. Get your order in early. Elgin Hatchery, Box 317A, Zeeland, Mich.

Rhode Island Reds, Tompkins strain, hatching eggs and baby chicks. Eggs per hundred \$12.00; chicks per hundred \$25.00. On all orders for either stock, eggs or chicks of \$15.00 or more, I will give the Rhode Island Journal free for one year. A few good cockerels left. Quality Breeder of Rhode Island Reds, both combs.
WM. H. FROHM, New Baltimore, Mich., R. 1.

White Leghorn CHICKS
Heavy Laying, pure bred, English strain. Flocks culled and tested for laying ability. Strong, healthy chicks. 100 per cent live delivery guaranteed. Postpaid. Catalog, low price list free. Write quick.
Catalpa Grove Hatchery, Box 4 R. 2, Holland, Mich.

BABY CHICKS and HATCHING EGGS

Direct from our farm at greatly reduced prices, only 9c up. Barred Rocks, White Leghorns and Anconas. Write quick for particulars and special introductory offer. MODEL POULTRY FARM & HATCHERY, Zeeland, R. 4, Michigan.

BABY CHICKS SELECTED CHICKS FROM the heart of the baby-chick industry. Leading pure breeds from heavy egg-producing strains. Live delivery guaranteed. Send for catalogue and prices.
L. VAN HOVEN & BRO., Zeeland, Mich.

WHITTAKER'S R. I. REDS—Michigan's Greatest Color and Egg Strain. Bred from winter layers for 13 years. Chicks and eggs. Write for free catalog. Interlakes Farm, Box 4, Lawrence, Mich.

BABY CHICKS 12c AND UP

Member Mid-West Baby Chick Association.
THOS. G. CALLAGHAN, Fenton, Michigan

BABY CHICKS—FROM SELECTED FLOCKS
Six leading varieties. Popular prices and guaranteed delivery. Write for catalog and price list.
H. H. PIERCE, Jerome, Mich.

CHICKS WITH PEP, \$11 per 100 and up



Selected Hogan Tested Flocks. Postpaid, full live delivery guaranteed. **BUFF ORPINGTONS, WH. and SIL. WYANDOTTES, 50, \$9.25; 100, \$18; BARRED and WH. ROCKS, S. and R. C. REDS, MINORCAS, 50, \$8.25; 100, \$16. ANCONAS and HEAVY BROILERS, 50, \$7.25; 100, \$14. WH. BR. and BUFF LEHGHORNS, 50, \$7.10; 100, \$13. MIXED, ALL VARIETIES, \$11 per 100 straight. On 500, 5% off; 1,000 10% off. Free Catalog. Member I. B. C. A.**

HOLGATE HATCHERY, Box B, Holgate, Ohio.

MEADOW BROOK FARM



CHICKS—ENGLISH WHITE LEHGHORNS, BROWN LEHGHORNS (Holland Importation Strain), 50, \$7; 100, \$13; 500, \$62.50; 1,000, \$120. BARRED ROCKS, REDS, BUFF LEHGHORNS, 50, \$8; 100, \$15; 500, \$72.50; 1,000, \$140. WHITE WYANDOTTES (Heavy Laying Flocks), 50, \$9; 100, \$17. Postpaid, full live delivery guaranteed. All flocks composed of Selected Heavy Layers. Order now from this advertisement and get them when you want them. I have been producing good Chicks successfully for the past 20 years and KNOW HOW. I want your business and will try hard to please you. Free Catalog. Bank Reference. **MEADOW BROOK FARM, Henry De Pree, Proprietor, Route 1 H, Holland, Mich. Member Michigan B. C. A.**

BABY CHICKS

\$10.50 PER 100 AND UP

From Hogan tested, well-kept and housed heavy laying flocks. Barred and White Rocks, Reds, Anconas, Minorcas: 50, \$8.50; 100, \$16; 500, \$77.50. Buff Orpingtons, White Wyandottes: 50, \$9; 100, \$17.50; 500, \$85. White, Brown and Buff Leghorns: 50, \$7.50; 100, \$14; 500, \$67.50. Mixed: 50, \$11; 100, \$22. Postpaid, full live delivery guaranteed. Order NOW from this ad. and get them when you want them. Catalog free. **ALSO EGGS FOR HATCHING. Reference, 4 Banks. TRI-STATE HATCHERIES, Box 511, Archbold, Ohio**

CHICKS THAT MAKE PROFIT



\$10 PER 100 AND UP. From vigorous, pure-bred flocks on free range, selected for heavy-laying qualities and well-cared for. Low prices considering exceptional quality. **WHITE, BROWN and BUFF LEHGHORNS, 50, \$7; 100, \$13; 500, \$62.50; 1,000, \$120. WHITE and BARRED ROCKS, WHITE WYANDOTTES, BUFF ORPINGTONS, ROSE and S. C. REDS, ANCONAS, 50, \$8; 100, \$15; 500, \$72.50; 1,000, \$140. Mixed, all varieties for broilers, \$10 per 100 straight. Postpaid to your door and full live count guaranteed. You can order now direct from this ad and get them when you want them. Bank reference. Free catalog.**

BLUFFTON HATCHERY, Box L, Bluffton, Ohio

SUNBEAM HATCHERY

The Chicks that I sell are produced under my personal supervision in a good, modernly equipped hatchery which is kept in best possible condition. The parent stock is carefully selected and of best heavy laying strains, kept on free range, well-housed and handled. Free from disease and properly fed. This enables me to produce strong, healthy chicks which will mean PROFIT to my customers. **PRICES: WHITE, BROWN and BUFF LEHGHORNS, 50, \$7; 100, \$13; 500, \$62.50. BARRED ROCKS, R. and S. C. REDS and ANCONAS, 50, \$8; 100, \$15; 500, \$72.50. WHITE and BUFF ROCKS, WHITE WYANDOTTES, and B. MINORCAS, 50, \$8.50; 100, \$16; 500, \$77.50. WHITE and BUFF ORPINGTONS, SIL. L. WYANDOTTES, 50, \$9; 100, \$18; 500, \$87.50. I guarantee full live delivery by prepaid post. Get your order in now and I will ship when you want them. Bank Reference. Catalog Free. **H. B. Tippin, Box E, Findlay, Ohio. Member I. B. C. A.****



Day Old Chicks



From Select, Hogan Tested, Flocks on Free Range. Well-fed and handled to insure strong, vigorous chicks. Heavy Layers. **PRICES: WHITE and BROWN LEHGHORNS and ANCONAS, 50, \$7.50; 100, \$14; 500, \$65. BARRED ROCKS, 50, \$8.50; 100, \$16; 500, \$75. Hatched right and shipped right. Postpaid, 100% live delivery guaranteed. Bank Reference. Order direct from this ad. Circular free.**

BORST & ROEK, Box P, Zeeland, Mich.

QUALITY CHICKS AT LIVE AND LET

\$10.00 PER 100 AND UP FROM EXCELLENT PAVING, HEAVY LAYING flocks on unlimited range. Well-hatched, sturdy, healthy chicks in the following varieties: **TOM BARRON ENGLISH WHITE LEHGHORNS, 50, \$7; 100, \$13; 500, \$62.50. PARK'S BARRED ROCKS and RHODE ISLAND REDS, 50, \$8; 100, \$10; 500, \$72.50. From EXTRA SELECT flocks headed by Michigan Agricultural College cockerels. (Dams records from 230 to 270.) WHITE LEHGHORNS, 50, \$8; 100, \$15; 500, \$72.50. ROCKS and REDS, 50, \$9; 100, \$17; 500, \$82.50. DELIVERED RIGHT TO YOUR DOOR BY INSURED PARCEL POST. 100% delivery guaranteed. Order NOW and from this ad as many were disappointed last year. Profitable Catalog FREE. Bank Reference.**

LAKEVIEW POULTRY FARM

Route 8, Box 3, Holland, Michigan.

Good Chicks, Low Prices

BARRON TYPE W. LEHGHORNS, BARRED ROCKS, S. C. REDS. Pedigreed Chicks from flocks mated with M. A. C. cockerels bred from 200 to 300 egg hens. Our Utility grade Chicks produced pullets laying at 4 months, 20 days. Get our instructive catalog, low prices, and special discount before you order.

MICHIGAN HATCHERY & POULTRY FARMS,

Box A, Holland, Michigan.



Hardy Northern Bred Chicks

Barron S. C. W. LEHGHORNS Parks Strain **BARRED ROCKS**. The greatest egg producers known. Heavy winter layers. See record of our pen 16 now at the Michigan International Egg Laying Contest. Get quality chicks at reasonable prices from Holland's pioneer poultry farm. Catalogue free.

Pine Bay Poultry Farm, Box 56, Holland, Mich.

CHICKS

BARRON'S S. C. W. LEHGHORNS, SHEPPARD ANCONAS, and BARRED ROCKS, EGGS and CHICKS FROM SELECTED STOCK. Our Leghorn flocks are headed by large vigorous males from M. A. C.; Anconas from Sheppard's 255 hens. Buy from an old reliable poultry farm and you will be proud to own a flock of high producing pullets laying at 4 months, 20 days. We guarantee safe delivery and prepay shipments. Write for catalogue.

WHITE LEHGHORNS, BARRED ROCKS, ANCONAS, 5,000 culled breeders, 12 years experience. New Smith 40,000 egg hatcher. Member Baby Chick Assoc. Send for Folder B and prices. BIG BEAVER, BIRMINGHAM, MICH.

DEAN EGG FARM & HATCHERY

BABY CHICKS—REMARKABLE FOR SIZE and strength. Reasonable prices. Leghorns, Anconas, Rocks, Reds, Wyandottes, Orpingtons, Minorcas, Spanish, Brahmas.

TYRONE POULTRY FARM, Fenton, Mich.

KNIGHT STRAIN WHITE PLYMOUTH ROCK cockerels \$5.00 each. Baby chicks \$20.00 per 100. **ROBERT E. KNIGHT, New Baltimore, Mich.**

400,000 Chicks



Big, strong, Well-hatched Chicks from selected to lay stock on free range. Properly fed and housed to insure health and vigor. **WHITE, BROWN & BUFF LEHGHORNS, 50, \$7; 100, \$13; 500, \$62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, \$8; 100, \$15; 500, \$72.50. WHITE WYANDOTTES, 50, \$8.50; 100, \$16; 500, \$77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, \$9.50; 100, \$18; 500, \$87.50. POSTPAID.**

We guarantee full 100% live arrival. Reference, Citizen's Bank. Order direct from this ad. and save time. Free circular.

MODERN HATCHERY

Box F, Mt. Blanchard, Ohio

289 EGGS



289 Eggs in one year, actual trap-nest record. "LADY MICHIGAN" also made record of 283 eggs in one year. She laid 294 eggs in 381 consecutive days. Sons and daughters of "LADY MICHIGAN" are now in use in our matings for 1923. If you want **Real Barron Leghorns**

Single Comb Whites, get our 1923 catalog and learn full particulars in regard to our chicks which we have carefully bred for high-egg records for the past 21 years. Our best matings are made up of mature females with actual trap-nest records from 200 to 289 eggs.

Chicks and Eggs for Hatching

that will put the PROFIT into your Leghorn flocks. Write postcard for catalog today and we will order Chicks or Eggs elsewhere. **STRICT POULTRY FARM, Route 4 O, Hudsonville, Mich.**

WASHTENAW



HATCHERY CHICK PRICES: March 26th and following hatches: Barred Rocks and Reds, 50, \$8.50; 100, \$16; 500, \$75. White Rocks, White Wyandottes, 50, \$9.50; 100, \$18; 500, \$85. White, Brown, and Buff Leghorns, 50, \$7.50; 100, \$14; 500, \$65. From hatches due March 12th and 19th add \$2 per 100 to these prices. Postpaid, full live delivery guaranteed. Our flocks are carefully selected and bred for high egg production. Order from this ad. Reference, Farmers and Mechanics Bank.

WASHTENAW HATCHERY, Ann Arbor, Mich.

Rosewood Farm

Healthy, Hardy Chicks

Well-hatched, carefully packed, and shipped. Select heavy laying **WHITE LEHGHORNS, 50, \$7; 100, \$13; 500, \$62.50; 1,000, \$120. SELECT ANCONAS, 50, \$7.50; 100, \$14; 500, \$67.50. Select BARRED ROCKS, 50, \$8.50; 100, \$16.50; 500, \$80. Postpaid, full live delivery guaranteed. Our chicks will render you the best of satisfaction and you will COME BACK TO US. We have had long experience in producing good Chicks and our flocks are second to none. Circular, free. **ROSEWOOD FARM, R 12 A, Holland, Mich.****



CHICKS—SINGLE COMB BUFF LEHGHORNS only. Strong healthy chicks from good laying stock. **J. W. WEBSTER, Bath, Mich.**

CHICKS—WE HAVE SHIPPED THOUSANDS each season since 1904. Different breeds, free booklet with guarantee and delivered price. **Freeport Hatchery, Box 10, Freeport, Mich.**

MARKETING EGGS IN THE SUMMER

THE egg problem in the summer is of importance to everybody having poultry. It is in summer that there is little demand for hatching eggs, a reduced market, and increased production, and temperatures unfavorable to long keeping. The successful meeting of these conditions depends somewhat on the location of the person having the poultry, the size of the flock and the number of eggs.

In order to outdistance the heavy competitive field at this difficult season of the year, it is necessary that the eggs be delivered absolutely fresh. It is often more satisfactory for the eggs to be delivered direct to the housewife rather than to the retailer. A house-to-house canvas for customers in the nearby town, supplemented by advertising, and capped off by a guarantee of the freshness of the eggs. To insure the success of this system, it is essential that not one customer shall ever find one bad egg among those delivered. One bad egg will often lose a customer permanently; no number of good eggs can ever compensate for it. If the eggs are always fine, fresh, and cool when delivered, it will, of course, be unnecessary to replace any eggs under the guarantee, and premium prices will be commanded—prices sometimes almost twice as high as those that the retailer would have paid for the "yard eggs," if delivered to him.

If the eggs are to be "fine" and "fresh" they must be gathered often. They must be kept in a cool place from the time they are carried to the house until they are delivered to the customer. They must not be permitted to become warm on the way to town. Of course, it goes without saying that the eggs must be infertile; that is, the males must be kept segregated from the females throughout the summer season and, in fact, at all times except during the breeding period.

The eggs, by all means, should be clean. This implies that they shall be laid in nests made of clean, fresh straw or other suitable material. The hen house and yard should be kept as clean as possible, and free from mud. The eggs themselves should never be washed but a damp cloth may be used to remove occasional spots on an otherwise clean and attractive egg. Dirty eggs always look stale, even though they are not, and they are repulsive to the eyes of the housewife.

Summer is a good time for the family to eat all the eggs it likes, for prices in town are not so good as at other seasons. Right at home is often one of the best markets that can be found. Eggs may be made into appetizing early-morning egg-and-milk drinks that are just the thing to start a hard working day. They are fine in all sorts of cooking, as the kitchen chairman knows, being ideal for cakes, cookies, deserts and all sorts of good things that are especially popular in summer.

If the flock is large and production is high, it is often advisable to use the water-glass route for marketing. The United States Department of Agriculture has full information in printed form in regard to the water-glass method of preservation, or the county home demonstration agent can furnish the right advice. Water-glassing will permit the poultryman-farmer to make high-priced winter eggs of low-priced summer eggs. This method, properly employed, offers no serious objection. It has repeatedly been demonstrated with thousands of eggs that the eggs so preserved are equal to any other kind of eggs for cooking purposes. They may be sold as water-glassed eggs to retailers at prices slightly lower than those paid for fresh "yard" eggs, or they may be used by the family at a time when the production is reduced.

Marketing eggs in summertime is a problem that may be solved with the assistance of a little forethought.

A young lawyer wrote a prominent practitioner in Dallas, Texas, asking what chance there was for a man of his stamp in that section. He said, "I am a Republican in politics, and I am an honest man."

The Texan wrote back, "If you are an honest lawyer, you will have no competition here, and as you are a Republican, the game laws will protect you."—Everybody's Magazine.

POULTRY BREEDER'S DIRECTORY

Advertisements inserted under this heading at 30c per agate line, per issue. Commercial Baby Chick advertisements 45c per agate line. Write out what you have to offer and send it in. We will put it in type, send proof and quote rates by return mail. Address The Michigan Business Farmer, Advertising Department, Mt. Clemens, Michigan.

PULLETS, HENS AND COCKERELS

S. C. White Leghorns and S. C. and R. C. Black Minorcas. Must make room before cold weather. About ready to lay.

LAPHAM FARMS, Pinckney, Mich.

PURE BRED LIGHT BRAHMAS. A FEW Cockerels for sale at \$4.00 each. **JOHN L. CURTIS, R. 3, Box 93, Shelby, Mich.**

HATCHING EGGS

HATCHING EGGS

S. C. White Leghorns. Tom Barron Strain, 250 egg utility line. November to April, average 65 per cent. Pure white plumage. Range grown, healthy, vigorous stock. Eggs \$1.50 per 15; \$4.00 per 50; \$7.00 per 100. Prepaid. Limited supply. Order from this ad now.

MAPLEWOOD POULTRY FARMS

C. W. Bovee, Prop. North Star, Michigan.

YOUNG AND WYCKOFF WHITE LEHGHORNS Selected hatching eggs \$2.00 a setting. Prepaid circular. **F. Arthur Martin, Indian River, Mich.**

EGGS FOR HATCHING—UTILITY STOCK.

Grand White Wyandottes—M. A. C. Champions. Good, square dual. Reasonable prices. Send for price list. **C. W. HEIMBACH, R. 5, Big Rapids, Michigan.**

EGGS FOR HATCHING—PURE BRED WHITE

Wyandottes, 15 eggs \$1.25; 30 eggs \$2.00; 50 eggs \$3.00; 100 eggs or more 5 cents each. Single settings prepaid. Others f. o. b. Allegan. **H. M. HORTON, Citz. Phone 294B Allegan Mich.**

WHITE WYANDOTTES MARTIN STRAIN.

Eggs for hatching. **WAYNE CHIPMAN, R. 2, Washington, Mich.**

SILVER LACED AND WHITE WYANDOTTES

Four large, beautiful roosters. Eggs \$2.50 per 15. **C. W. BROWNING, Portland, Michigan.**

EGGS FOR HATCHING: FROM THE FOLLOWING varieties, Barred Buff and White Rocks; Silver Laced, and White Wyandottes; S. C. White Orpingtons, and S. C. Black Minorcas. Eggs, \$1.25 for 15, \$2.25 for 30, prepaid. From pure bred Good Laying Stock. Booking orders for eggs. Order early. **BENJAMIN SCOTT, Bannister, Mich.**

BUFF ROCK EGGS BY 10 LB. MALES

O. winners. Hogan tested hens, heavy layers. **J. C. CLIPP & SONS, Box M, Saitillo, Ind.**

THOROUGHBRED BUFF ROCK EGGS

from Blue Ribbon Winners. \$1.50 per 15; \$9.00 per 100. **BALDWIN & NOWLIN, R. 4, Laingsburg, Mich.**

BARRED ROCK HATCHING EGGS. NORMAN

Heavy Laying Strain. **MRS. JESSIE B. DEAN, R. 1, Mason, Mich.**

White Rocks. Heavy Layers, Choice Birds. Pre-

paid guaranteed eggs. 15, \$1.50; 50, \$3.50; 100, \$6.50. **Mrs. Florence Howard, Petersburg, Mich.**

BARRED ROCK HATCHING EGGS. PARKS

200-egg strain. \$2 per 15; \$5 per 50; \$10 per 100 by prepaid parcel post. **R. G. KIRBY, R. 1, East Lansing, Michigan.**

THOMPSON HEAVY LAYING BARRED ROCK

eggs. \$1.75-15; \$3.30. Dark matings. **MRS. FRED KLOMP, St. Charles, Michigan.**

BARRED AND WHITE ROCK HATCHING

eggs for sale from exhibition utility stock. Farmers' prices. **Dawson's Farm, R. 4, Muskegon, Mich.**

PURE BRED BUFF ORPINGTON EGGS AT

\$2-15; \$5.50-50. Prepaid. **MRS. ANNA LA NOUE, Fostoria, Michigan.**

S. C. REDS, GOOD LAYING STOCK, FINE

color. Hatching eggs, \$6.00 per 100. Limited number of chicks, \$16.00 per 100. **EDWARD CRYDER, Alamo, Mich.**

ROSE COMB RHODE ISLAND REDS. HATCH-

ing eggs \$1.25 per setting. Postpaid. **Mrs. Albert Harwood, R. 4, Charlevoix, Mich.**

S. C. RHODE ISLAND WHITES THAT HAVE

the laying habit. Eggs \$2.00 per 15. Also cockerels and pullets. **Jno. Hartgerink, Box W, Zeeland, Michigan.**

BOURBON RED TURKEYS. EGGS 50c

EACH. **THOS G. CALLAGHAN, Fenton, Michigan.**

MAMMOTH BRONZE TURKEY EGGS FOR

Hatching. Best stock. Farmers prices. **DAWSON'S FARM, R. 4, Muskegon, Michigan.**

EGGS FOR HATCHING. BIG TYPE PEKIN

Ducks, 12, \$1.00; 24, \$1.75. Buff Orpington Ducks, 12, \$5c; 24, \$1.50, prepaid. **BENJAMIN SCOTT, Bannister, Michigan.**

MAMMOTH PEKIN DUCK EGGS FOR SETTING

\$2.00 or two settings \$3.00. Also Wild Mallard Duck eggs same price. Very choicest stock. All orders prepaid. **Cedar Bend Farm, Okemos, Mich.**

LEGHORNS

LEGHORNS

S. C. Buff Leghorn Hens, Pullets and Cockerels. Hens and pullets \$2.50 each; cockerels \$3.00 to \$5.00 each. Show birds a matter of correspondence. **LAPHAM FARMS, Pinckney, Mich.**

PULLETS BARRON ENGLISH WHITE Leghorns, eight weeks to maturity—May to October. Breeding flocks repeatedly culled by experts. Extra large and vigorous. Wedge shaped bodies, big looped combs. "Lay-bilt" in every way. Also breeding cockerels. Satisfaction and more or money back.

MORSE WHITE LEGHORN FARM,

Beiding, Michigan.

PLYMOUTH ROCK

BARRED ROCK COCKERELS AND PULLETS from America's best prize-winning laying strains. Winners of 13 first prizes, Detroit and M. A. C. the last two seasons. Low prices.

TOLLES BROS., R. 10, St. Johns, Mich.

More Poultry Advertising on Page 31

The Agricultural and Business Situation

Revised Monthly by the Department of Research of the American Farm Bureau Federation.

The growth of industrial prosperity as indicated by such barometers as iron output and the stock market is proceeding rapidly. Insofar as this continues, it will mean strong domestic demand for the products of agriculture. The past month's developments, however, are adverse to immediate agricultural prosperity, which awaits more favorable price relationships. Price readjustments appear likely to be slow in coming. In the last month farm products at wholesale have declined relative to other commodities.

I. PRODUCTION AND TRADE

The high rate of industrial production is reflected in the iron and steel trade which is now operating at 90% of capacity and is producing at the rate of about 45 million tons per year, which is approximately the same as at the peak of production in 1920.

The official report of the Bureau of the Census on cotton ginnings, places the 1922 crop at 9,761,817 equivalent 500 pound bales, which is a reduction of 200,000 bales from the December estimate of the Department of Agriculture. The unofficial forecast of the cotton acreage by the Brookmire Economic Service places the probable acreage for 1923 at 35,250,000 acres, or an increase of 4.4% over 1922 plantings.

II. FOREIGN TRADE

The latest available figures indicate some shifts in foreign trade. Pork and lard exports for the first seven months of the current fiscal year are close to the figures for the same period in the fiscal year 1922. Vegetable oils are running about the same; cotton shows a 10% decrease. Cereals, however, have fallen off largely; corn from 91 million bushels to 66 million; wheat from 167 to 121 million bushels. Part of the decrease in corn exports may be accounted for by 40 million bushels of rye exported since July 1. Rye being only ten cents above corn in price is at an unusually attractive figure for buyers. The decline in our wheat exports has apparently been made good on the part of European consumers by purchases elsewhere, especially in Canada. This is made clear by a comparison of world shipments which, in the period from August 1, 1922, to March 1, 1923, totalled 414 million bushels against 401 million a year ago, and 332 million two years ago.

I. Production and Trade

I. Agriculture: U. S. Production—000,000 omitted.				
	1922	1921	Average 1916-1920	1922*
Corn, bu.	2891	3069	2831	102
Wheat, bu.	856	815	799	107
Oats, bu.	1215	1078	1413	85
Barley, bu.	186	155	197	94
Rye, bu.	95	62	63	139
Buckwheat, bu.	15	14	14	107
Potatoes, bu.	451	362	373	128
Sweet Potatoes, bu.	110	99	89	123
Hay, all, tons.	113	98	102	111
Cotton, bales	9.76	7.95	12	81
Tobacco, lbs.	1325	1070	1378	96
Flaxseed, bu.	12	8	11	109
Rice, bu.	42	38	42	100
Peaches, bu.	57	33	44	129
Pears, bu.	19	11	14	136
Apples, total, bu.	204	99	179	114
Apples, com'l., bbls.	31	22	27	115
Sugar Beets, tons.	5	8	7	71
Cranberries, bbls.	12	9	13.3	90
Beans, bu.	18	14	17	105
Onions, bu.	1	6	7	143
Cabbage, tons	37	46	40	93
Borghum Sirup, gal.	1.9	1.5	1.5	127
Cloverseed, bu.	624	829	1043	59
Peanuts, lb.	26	29	32.1	81
Hops, lb.				

*As percentage of average 1916-1920.

World Production—000,000 omitted.

	1922	1921	Average 1909-13
Wheat, bu. (1)	3,058	3,069	2,890
Corn, bu. (2)	3,450	3,781	3,572
Rye, bu. (3)	785	473	...
Oats, bu. (4)	3,003	2,759	3,008
Barley, bu. (5)	833	818	832
Potatoes, bu. (6)	8,123	2,445	3,066
Cotton, bales (7)	16	14.1	19.6

(1) Russia and Mexico excluded. (2) 17 countries. (3) 18 countries. (4) 27 countries. (5) 25 countries. (6) 16 countries. (7) 500 pounds net, linters excluded.

2. Mining (Federal Reserve Bank of New York):

Figures express production as a percent of normal. In estimating normal production, due allowance is made for seasonal variation and year to year growth.

	Jan., 1923	Dec., 1922	Jan., 1922
Anthracite coal	108	96	78
Bituminous coal	83	85	64
Petroleum	124	121	108

3. Manufacturing (Federal Reserve Bank of New York):

	1923	1922	1921
Wheat flour	*	93	85
Meat	*	*	89
Sugar	115	136	140
Cotton	103	95	91
Pig iron	*	105	55
Steel ingot	98	89	50
Lumber	*	*	100
Wood pulp	*	*	85
Gasoline	*	*	93
Cement	157	127	97
Wool	*	*	111
Copper	93	84	22

*Not available.

4. Building:

Contracts awarded in 27 States:				
	Feb., 1923	Jan., 1923	Jan. 1 to Mar. 1, 1923	1922
(F. W. Dodge Co.)				
Number	6,338	6,126	12,464	...
Value (000,000 omitted)	\$ 230	\$ 217	\$ 447	\$ 339

5. Transportation:

	Week Ending Mar. 3, 1923	Same Week Ago	Same Week Year Ago	Week Ending Mar. 3, 1923*
Freight car loadings:				
Total	917,896	865,675	803,255	114
Grain and grain products	44,967	41,736	49,520	91
Livestock	32,810	33,675	28,329	116
Coal	193,551	189,773	196,639	98
Coke	16,138	14,199	8,257	195
Forest products	76,131	69,767	47,664	160
Ore	10,547	11,239	4,651	227
Merch. and Miscel.	543,572	505,286	468,195	116

*As percentage of week year ago.

7. Bank Clearings:

Units of \$1,000,000,000			
	Feb., 1923	Jan., 1923	Feb., 1922
New York City	\$16.78	\$19.78	\$15.34
Outside New York City	14.17	17.52	11.62

8. Mail Order Sales: February

	1923	1922	1923	1922
Montgomery Ward & Co.	\$ 9,063,304	\$ 5,784,685	\$ 65,325,168	\$ 50,165,096
Bears Roebuck	17,114,759	12,413,308	135,707,440	114,201,418

On the import side it is to be noted that the United States is swinging back into its normal position as a heavy importer of cheese, 40 million pounds having been imported in the eleven months ending November, 1922. Imports of vegetable oils and oil bearing materials have increased as a result of the industrial revival. Imports of sugar for the eleven months period of 1922 are nearly twice as large as in 1921 as a result of the rapidly growing demand in this country.

In foreign exchange, the most important feature is the continued strength of sterling which stands now at about \$4.70 or 96.5 per cent of par. Continental exchanges continue weak and rather erratic although French and French Belgium francs are somewhat higher than a month ago. Marks are still holding around the 20,000 to the dollar mark.

III. MONEY AND CREDIT

Financial statistics indicating the volume of trade, such as bank clearings, are low in February on account of the shortness of the month. A significant feature of recent months is the increased exports and smaller imports of gold, net imports for the seven months ending January, 1923, being 150 million dollars against 354 million for the same period last year. The trend of the stock market has continued strongly upward, whereas advancing interest rates are reflected in a slight decrease in bond prices.

IV. PRICES

Wholesale price changes in February were slightly unfavorable to agriculture, the all commodity index rising one point while farm products lost a point. During the past month twelve out of the twenty-four products quoted in the table below increased in price, ten decreased, and two remained unchanged. The most important changes were increases in the price of cotton, potatoes and poultry; and declines in egg, butter and hide prices.

Recovery from the depths of depression a year to a year and a half ago has been much slower in raw farm products than in industrial raw materials. Industrial materials such as pig iron, copper and rubber have regained 30 to 40 per cent of the decline from their extreme high points before the crisis while corn, wheat and livestock have regained but 10 to 20 per cent of this loss. Cotton has shown a rapid recovery having regained close to two-thirds of its extreme decline.

6. Stock and Bond Prices:

	March 9, 1923	Feb. 9, 1923	March 10, 1922
20 Industrial stocks	\$104.48	\$100.82	\$87.18
20 Railroad stocks	89.19	89.17	78.63
40 Bonds	87.09	88.74	86.23

7. Business Failures:

	Mar. 8, 1923	Feb. 8, 1923	Mar. 9, 1922
Bradstreets	406	405	519
Duns	351	371	521

IV. Prices

1. Wholesale Prices of Farm Commodities:

Quotations at Chicago except as noted.			
	March 20, 1923	Month Ago	Year Ago
Fat hogs, cwt., average	\$ 8.50	\$ 8.00	\$10.00
Beef steers, good native, cwt., av.	8.90	8.85	7.95
Fat lambs, cwt., average	14.00	13.90	14.15
Fat sheep, cwt., average	8.00	7.65	8.50
Wool, Ohio Delaine unwashed, lb.			

	March 20, 1923	Month Ago	Year Ago
Butter, 92 score, lb.	.4825	.52	.36
Cheese, No. 1 twins, lb.	.2325	.2425	.20
Eggs, fresh firsts, doz.	.2475	.37	.2325
Poultry, hens, lb.	.26	.2375	.26
Wheat, No. 2 hard, bu.	1.215	1.2175	1.355
Corn, No. 2 mixed, bu.	.7475	.7425	.575
Oats, No. 2 white, bu.	.4675	.4675	.395
Rye, No. 2, bu.	.84	.855	1.0325
Barley, bu.	.655	.68	.61
Kafr, No. 2 white, cwt., K. C.	1.645	1.59	1.31
Hay, No. 1 timothy, ton	22.00	21.00	23.00
Flax, No. 1, bu. (Minneapolis)	3.045	3.1575	2.55
Cotton, middling, lb. (New York)	.311	.29	.184
Beans, white, cwt. (f. o. b. Michigan)	7.60	8.15	6.75
Potatoes, northern whites, cwt.	1.20	1.10	1.70
Onions, midwest yellow, cwt.	2.65	2.65	7.85
Apples, winter varieties, bbl.	5.85	5.30	8.50
Hides, No. 1 native heavy, lb.	.185	.205	.1475
Sugar, fine granulated, lb. N. Y.	.091	.0825	.055

2. U. S. Department of Labor Relative Wholesale Prices:

Prices in year 1913 equal 100.

	Feb., 1923	Jan., 1923	Feb., 1922
All commodities (weighted average or general price level)	157	156	141
Farm products	142	143	131
Food products	141	141	135
Clothes and clothing	199	196	174
Fuel and lighting	212	218	191
Metals and metal products	139	133	110
Building materials	192	188	156
Chemicals and drugs	132	131	123
House furnishings	184	184	177
Miscellaneous	126	124	117

3. Prices of Farm Products at the Farm Relative to 1913:

(U. S. Bureau of Agricultural Economics)

Prices in year 1913 equal 100.

Commodity:	Jan., 1923	Dec., 1922	Jan., 1922
Cotton	209	198	125
Corn	119	117	77
Wheat	133	135	124
Hay	110	107	103
Potatoes	101	92	179
Beef cattle	94	89	81
Hogs	104	102	93
Eggs	174	229	166
Butter	157	162	128
Wool	211	211	108

4. Relative Purchasing Power of Farm Products:

(U. S. Bureau of Agricultural Economics)

The quantity of various commodities which a given amount of each farm product would purchase at prices prevailing in 1913 is put equal to 100. The figures given represent the percentage of this quantity which the same amount of farm products would purchase in January, 1923. Prices at the farm are used for agricultural products, and wholesale prices at central markets for other commodities.

	All Com- modities	Cloths, etc.	Fuel, etc.	Metals, etc.	Building Mtls.	House Furn'gs
Cotton	134	107	96	157	111	114
Corn	76	61	55	89	63	65
Wheat	85	68	61	100	71	72
Hay	73	56	50	83	58	60
Potatoes	65	51	46	76	54	55
Beef cattle	60	48	43	71	50	51
Hogs	67	53	48	78	55	57
Eggs	112	89	80	131	83	85
Butter	101	80	72	118	83	85
Wool	135	108	97	159	112	115

Average purchasing power of all farm products in terms of all other commodities. Same basis as above table.

	December, 1921	January, 1922	February, 1922	March, 1922	April, 1922	May, 1922	June, 1922	July, 1922	August, 1922	September, 1922	October, 1922	November, 1922	December, 1922	January, 1923
1913	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1914	112	112	112	112	112	112	112	112	112	112	112	112	112	112
1915	106	106	106	106	106	106	106	106	106	106	106	106	106	106
1916	89	89	89	89	89	89	89	89	89	89	89	89	89	89
1917	106	106	106	106	106	106	106	106	106	106	106	106	106	106
1918	112	112	112	112	112	112	112	112	112	112	112	112	112	112
1919	111	111	111	111	111	111	111	111	111	111	111	111	111	111
1920	86	86	86	86	86	86	86	86	86	86	86	86	86	86
1921	67	67	67	67	67	67	67	67	67	67	67	67	67	67
1922	69	69	69	69	69	69	69	69	69	69	69	69	69	69

II. Foreign Trade

	000 omitted		Seven Mos. Ending	
	—January—		—January—	
Commodity:	1923	1922	1923	1922
Grand total, all exports...	\$330,894	\$274,612	\$2,311,276	\$2,189,715
Beef and veal, lbs.....	1,730	2,442	18,223	20,780
Pork, lbs.	84,982	53,139	457,986	410,400
Lard, lbs.	107,786	73,194	511,120	521,957
Neutral lard, lbs.....	3,371	1,279	14,607	11,591
Butter, lbs.	384	539	6,531	3,260
Cheese, lbs.	326	431	2,349	4,919
Hides and skins.....	\$ 356	487	2,234	2,919
Corn, bu.	7,163	19,393	65,613	90,620
Meal and flour, bbls.....	56	51	304	444
Wheat, bu.	7,296	10,038	120,501	166,872
Flour, bbls.	1,161	1,105	9,118	9,834
Oats, bu.	212	113	16,523	9,834
Meal and rolled, lbs.....	5,465	7,629	71,791	54,322
Fruits and nuts.....	\$ 5,138	4,349	55,202	45,178
Vegetable oils and fats...	\$ 1,421	1,677	8,244	7,784
Sugar, lbs.	10,568	142,822	356,192	653,762
Leaf tobacco, lbs.....	41,652	32,265	271,124	282,713
Cotton, bales	473	476	3,753	4,183
Wool, lbs.	14	14	1230	701



MARKET FLASHES



FOOTE'S MARKET LETTER

By W. W. Foote

WHILE there is still much complaint regarding rising prices for most commodities and the consequent higher cost of living than a year ago, the times are somewhat better for farmers, especially for those out of debt, and the Michigan farmers as a class have not seen their lands shrink as much as the farmers of other states of the middle west. Conditions in the grain trade are mostly satisfactory for farmers, and despite much bearish talk indulged in by speculators on the Chicago Board of Trade and other leading markets, wheat has undergone a fair upward movement, May wheat having sold within a short time as high as \$1.21½, comparing with \$1.30¼ a year ago. Corn, too, shows a firm undertone, with no burdensome stocks in sight and unusually large consumption on the farms of the corn belt states. "Cash corn is selling around 75 cents per bushel for the No. 3 grade in Chicago," says a prominent grain trader, in discussing the situation. "Hogs on the farms are not selling far below \$8 per 100 pounds, or equal to 80 cents a bushel for corn in the country. It will be seen that the position of shorts in May corn is very uncomfortable." Turning from grain to live stock, it cannot be denied that the recent course of cattle and hog markets has been such as to give encouragement to stockmen, prices having advanced at a time when the pessimists were predicting declines. Casting speculative opinions aside, it must be said that since the close of Lent consumption of beef has shown marked improvement, while the consumption of fresh and cured hog products has been extremely large for many weeks. Lambs are the greatest money-makers of all kinds of live stock, as every sheepman fully realizes, and especially liberal profits are made by the fortunate ones who have any early spring lambs to sell. Most of the lambs now being marketed were born a year ago, however, and they are selling for higher than before the war. Michigan farmers are particularly interested in the market for pea beans, and it may be said on authority of the Bean and Pea Journal that there are probably not over one hundred cars of pea beans left in the state of New York, most of the remaining holdings being held in Michigan. That journal says: "Practically all of the pea beans in the United States are grown in Michigan and New York. Of course, there are some unimportant quantities grown in Minnesota, Wisconsin, and some northern states, but there are none worthy of mention, grown in the latitudes south of these states, and this is because the climatic conditions are not favorable for them. The feature of the Michigan market which is most surprising to the Michigan jobbers, who realize that 40 percent of the Michigan crop is consumed by the canning trade, is where are the canners getting their beans.

The Grain Trade

Wheat continues to sell at lower prices than were paid a year ago, but the difference is less than it was early this year, and the undertone is much stronger. Recently the export demand for durum and hard winter wheat has shown marked improvement, and the visible supply of wheat in the United States is decreasing, although it stands at 45,785,000 bushels, or about 10,000,000 bushels over a year ago. Corn is in a firm position, and both corn and oats continue to sell much higher than a year ago, while rye is selling very much lower than at that time, the visible rye supply being up to 18,268,000 bushels, comparing with 9,495,000 bushels at this time last year. The visible corn supply is down to 28,742,000 bushels, comparing with 46,889,000 bushels a year ago; while that of oats is only 24,044,000 bushels, comparing with 64,644,000 bushels last year. Huge amounts of corn and oats have been fed to live stock, and within a short time Indiana stockmen have bought

MARKET SUMMARY

Wheat quiet. Corn and oats unchanged. Demand for rye off. Beans steady. Potatoes firm. Butter easy but eggs in demand with prices firm. Poultry quiet and steady. Dressed calves in demand. Cattle active and prices steady. Sheep dull and lower in price. Hogs in demand and prices higher. Provisions average Higher.

(Note: The above summarized information was received AFTER the balance of the market page was set in type. It contains last minute information up to within one-half hour of going to press.—Editor.)

corn in Chicago costing around 78 cents a bushel laid down in northern Indiana. Reports come from the northwest that the bankers are advising farmers to curtail their acreage devoted to wheat and other grains. Late sales were made of May wheat at \$1.23, comparing with \$1.30¼ a year ago; May corn at 77 cents, comparing with 58½ cents last year; May oats at 45½ cents, comparing with 36½ cents last year; and May rye at 83½ cents, comparing with \$1.01½ a year ago.

The Live Stock Problem

How to produce cattle, hogs and sheep for the market profitably is one of the problems farmers must meet in these times of changing conditions. Just now the approach of the grazing season forces them to look the ground over and figure what kind of feeder cattle to buy and how much to pay, for a small difference in the cost per 100 pounds in buying a steer may go far to offset the cost of putting on fat. As is the case every spring, the market for stockers and feeders has been advancing steadily for weeks, and there are few bargains to be picked up in the Chicago stock yards. It is true, thin cattle can still be purchased at low prices, but offerings with good quality to recommend them are selling much above the prices paid a month ago. Different stockmen have varying opinions about what stock to buy and what to feed them with, and some men are successful in fattening high-priced thin cattle, but the average stock feeder buys good stock cattle, while avoiding the highest priced lots. Stockers and feeders sell in the Chicago market at \$5.25 to \$8.50, mainly at \$6.75 to \$7.85, no good lots selling below \$7.

The Cattle Outlook

Farmers who have not yet arranged to stock their pastures with cattle for summer grazing are deliberating what course to follow, while those owning matured beef cattle are losing no time in getting them shipped to market. Cattle are being marketed much more freely than a year ago, but recent marked improvement in the demand in the Chicago market has enabled sellers to obtain higher prices, especially for the choicer class of weighty steers, as well as for strictly yearling steers and heifers. The commoner cattle are less active than the better offerings, but even ordinary steers are much higher than they were several weeks ago. More cattle are reported in feeding districts than a year ago, but the demand is larger, and fat yearling heifers are especially active and firm. Beef steers sell on the Chicago market at \$6.90 to \$10.40, mainly at \$8.25 to \$9.90. A year ago \$9.35 paid for best.

Recent Advance in Hogs

During the latter part of March there was a rush to get Illinois fed swine on the market, as tax assessments in that state are made on the first of April. Early April receipts of hogs in Chicago have undergone a great falling off, and much of the restricted marketings are attributed to bad country roads. Prices have had some good advances, with a lively local demand and fair purchases of eastern shippers, prime light bacon hogs selling highest, although at a reduced premium. Hogs offered of late graded well and averaged 240 pounds. Of course, the large exports of lard and cured hog meats tend to strengthen hog values, weekly shipments to foreign consumers running far ahead of a year ago. The large marketing of hogs may be judged from the fact

that western packing for the season to recent date amounts to 4,306,000 hogs, comparing with 2,623,000 for the same period a year ago. Stocks of cured hog meats in packing points are much larger than a year ago, but lard holdings are down to 27,201,000 pounds comparing with 44,675,000 pounds a year earlier. Hogs look like good property, and they should be made good, but not heavy. Recent sales of hogs were made at \$7.25 to \$8.75.

High Prices for Lambs

Extremely high prices are paid in the Chicago market for choice flocks of lambs of not too heavy weight, as well as for light yearlings, fat wethers and ewes, although recent sharp declines have taken place in prices for choice lambs. Exporters are fair buyers of fat heavy clipped lambs, and in the course of a week 2,000 head averaging 107 pounds brought \$10 per 100 pounds. Colorado has been furnishing the greater part of the lambs born a year ago, while California is supplying numerous consignments of lambs born last November. Wool lambs sell at \$12.25 to \$14.75.

WHEAT

The past fortnight was a healthy period for wheat and prices are somewhat higher than they were at the beginning of this period. The market opened weak but closed firm for the first week opening easy again the last week but firming up later and gains in prices were made, an increase in the export demand caused the upward turn to the market. While the takings were nearly all Canadian wheat purchases of American durum were larger than usual and some other varieties were in moderate demand. The total was large enough to alarm the bears and those who had been short were in a hurry to get out, while some heavy dealers in the east who had sold out their holdings of wheat got busy reinstating their lines. The market has had a great deal of eastern support all along. There appears to be a general willingness to see higher prices and bulls are quick to return to the buying side of the deal every time they see an opportunity. The feeling is again general that Europe will take a lot of wheat in the near future. The market has plenty of bearish news, but there is a tendency to ignore the big stocks and all other things that look like causing weakness.

Crop damage was not specially bad. The western part of Kansas appears to be the worst spot on the map and there is lack of moisture in Nebraska also. Some rains have been falling on the other dry places, but there is yet time for plenty of alarm over the new winter wheat crop and observers sap the growing weather will develop a very unfavorable condition over a great deal of the southwest.

Prices

Detroit—Cash No. 2 red, \$1.36½; No. 2 white, \$1.36½; No. 2 mixed, \$1.36½.

Chicago—Cash No. 2 hard, \$1.23½ @ 1.24; No. 1 northern, \$1.24½.

New York—Cash No. 2 red, \$1.50; No. 2 hard, 1.35½; No. 2 mixed, \$1.29.

Prices one year ago—Detroit, No. 2 red, \$1.40; No. 2 white, \$1.37; No. 2 mixed, \$1.37.

CORN

Corn has shown a great deal of strength and is in a firm position all over the country. Prices at Detroit gained 4c last week and 1c the previous

week. Local demand has been only moderate. Canadian exporters were active in the market but found the grain hard to get. Sales of 300,000 bushels of contract corn were reported to go to store. Country offerings were practically nil despite strong bids sent out. Experts agree that this grain is in a position favorable to higher prices.

Prices

Detroit—Cash No. 2 yellow, 85½c; No. 3, 83½c; No. 4, 81½c; No. 5, 79½c.

Chicago—Cash No. 2 mixed, 79½c; No. 2 yellow, 79½ @ 80½c.

New York—No. 2 yellow and No. white, 99½c; No. 2 mixed, 99c.

Prices one year ago—Detroit, No. 2 yellow, 64c; No. 3, 62½c; No. 4, 61c.

OATS

The backward spring is giving the oat market a bullish outlook and large consumers of this grain are beginning to wear a worried look. They have good reason to, because farm work is far behind and seeding is going to be unusually late which indicates higher prices.

Prices

Detroit—Cash No. 2 white, 51½c; No. 3, 50c; No. 4, 48½c.

Chicago—Cash No. 2 white, 46½ @ 47½c; No. 3, 45½ @ 46½c.

New York—Cash No. 2 white, 56½ @ 57c.

Prices one year ago—Detroit, No. 2 white, 42c; No. 3, 40c; No. 4, 38c.

RYE

Rye made a small gain in price at Detroit during the past fortnight following the trend of other grains but there is not much demand and the market is quiet. Indications are that rye will follow the other grains upward.

Prices

Detroit—Cash No. 2, 81½c.

Chicago—Cash No. 2, 84¾c.

Prices one year ago—Detroit, Cash No. 2, \$1 @ 1.01½.

BEANS

The bean market looks like a big question mark to producer, dealer and student of the market. At Detroit and several other points a dull tone prevails with prices quiet after recent declines, while at New York and on many other markets there is sufficient demand to take all offerings at steady prices. Demand on the New York market is such that dealers believe that state will go into the new crop season with empty bins. Reports from California indicate the market in that state is in a fairly healthy condition with no immediate prospects of much lower prices.

Prices

Detroit—C. H. P., \$7.15 per cwt.

Chicago—C. H. P., \$7.65 per cwt.

Prices one year ago—Detroit, C. H. P., \$6.90 per cwt.

POTATOES

Many markets report receipts far greater than demand but the Detroit market has only a small supply and prices on this market are firm. The shortage at Detroit is due in part to the fact that some Michigan spuds are eastward to New York city and other markets in that section.

Prices

Detroit—Michigan, \$1.41 @ 1.50 per cwt.

Chicago—Wisconsin sacked round whites, \$1 @ 1.05 per cwt; Minnesota sacked red river Ohios, \$1.15 @ 1.25 per cwt.

Prices one year ago—Detroit, Michigan, \$2.10 per cwt.

HAY

The movement of hay to market during the last three months has been about normal, with some exceptions, a survey just completed by the United States Department of Agriculture indicates. About 65 per cent of the marketable surplus of timothy was reported marketed up to March 15. Although this was about 10 per cent less than the percentage marketed to March 15 last year, a larger volume of timothy has been marketed this season than during the corresponding period last

New Way to Rid Poultry of Lice

Rev. G. R. Mente Tells of Amazing Discovery Which Keeps Hens and Chicks Free From Vermin

Few Drops of Liquid in Drinking Water Does it—No More Dusting, Spraying or Greasing

"I have used your remarkable Lice and Mite Remedy with fine results," writes Rev. G. R. Mente, Methodist Parsonage, New Washington, Ohio. "Mentioned this at a Farmer's Institute a few weeks ago. Consequently, farmers by the dozen have been after me every since to find out where and how they could get it. It has put a stop to the poultry losses in this community. You are a great benefactor to poultry raisers."

Lice and Mites Go Like Magic



This remarkable new discovery which Rev. G. R. Mente, used is Imperial Lice and Mite Remedy. Just a few drops occasionally in the fowls' drinking water makes Lice, Mites, Ticks and all vermin go like magic. No more disagreeable and unsanitary dusting, spraying, greasing or dipping. Equally good for Chickens, Turkeys, Ducks, Geese, and Pigeons. Fine for baby chicks and makes them healthier, sturdier and grow faster. All poultry raisers know that sickly, lice-infected hens cannot lay or have good hatches. Vermin sap the very life and strength of hens and baby chicks. Stop these losses now. Guaranteed not to affect eggs or flesh of fowls in any way. Also a splendid tonic and blood purifier. Costs but a trifle, on money-back guarantee of satisfaction.

White Diarrhea Remedy Free (Regular \$1.00 Size Package)

At last a sure treatment for this dread disease. No muss. No fuss. Comes in condensed tablet form to be dropped occasionally in chicks' drinking water. Raise every chick hatched. Economical to use. Be prepared. These remedies should always be on hand. SEND NO MONEY. Just your name and address to Imperial Laboratories, Dept. 6399, Kansas City, Mo., for one regular, full size \$1.00 bottle of Imperial Lice and Mite Remedy (double strength), and they will include free of cost, a regular \$1.00 box of Imperial White Diarrhea Remedy. Pay postman only \$1.00 and few cents postage on arrival. Or, a large size Trial Package of either one of these remedies for 50c. If you have a large flock, this Special Introductory Offer also applies on a double quantity of both remedies—two regular \$1.00 bottles of Lice and Mite Remedy, and two regular \$1.00 packages of White Diarrhea Remedy at an additional saving—all for \$1.75. Simply specify that you be sent this regular \$4.00 value for only \$1.75. Readers risk no money, as Imperial Laboratories are fully responsible and will refund the cost on request any time within 30 days.

BREEDERS' DIRECTORY (Continued from Page 23)

HAMPSHIRE

HAMPSHIRE—SPRING BOARS AND BRED gilts from 25 sows to select from. Place your order now or you may be to late. 10th year. JOHN W. SNYDER, R. 4, St. Johns, Mich.

REGISTERED HAMPSHIRE, BRED SOWS and gilts, full pigs both sex, leading blood lines. Priced to sell. Inspection invited. CLARENCE L. CAMPBELL, Parma, Michigan

HORSES

FOR SALE: OUR ENTIRE STABLE EQUIPMENT. Six horses, harness, wagons, feed grinder, etc., etc. Further need for horses. Look over stable over and make us an offer for anything you may need. FEDERAL LAUNDRY COMPANY, Third and Elizabeth Sts., Detroit.

SHEEP

ALL SOLD OUT FOR THIS WINTER. BOOKING orders for next August. DAN BOOHER, Evart, Michigan.

WANTED TO BUY 100 BREEDING EWES. Write description, price and location to: Williams & Williams, Williamston, Michigan.

POULTRY BREEDERS' (Continued from Page 28)

PEN MATED S. C. WHITE LEGHORNS, Ferris 264-800 egg strain. Range grown, healthy, vigorous stock. Eggs \$2.00 per 15; \$3.00 per 30; \$4.00 per 50; prepaid. Satisfaction guaranteed. Limited supply. Order from ad. H. A. JOHNSON, Norwalk, Michigan.

ARISTOCRAT DARK BARRED PLYMOUTH Rocks. Foundation stock direct from Holterman's choicest matings. Eggs from special pen at \$8 for 15 prepaid. From other pens at \$3 and \$5. Satisfaction guaranteed. R. W. BRANDT, R. 4, Box B, Saginaw, W. S., Michigan.

WHITE WYANDOTTE COCKERELS: GOOD Strong Birds, 1 yr. old, March hatch, \$2.50 apiece. MRS. A. J. FISH, R. 1, Blanchard, Mich.

JOHN'S BIG BEAUTIFUL BARRED ROCKS are hen hatched, good layers, quick growers, light and dark matings. 30-ages \$3.50; 50-\$5.00 postage paid circulars. John Northton, Clare, Mich.

FOR SALE—FINE ROOK COCKEREL \$2.50, Old Belgian Hares \$3.00 a pair. C. STRONG, Essexville, Michigan.

TURKEYS—DUCKS—GEES

2 PUREBRED BRONZE TURKEY TOMS FOR sale. Large birds. MRS. FRANK IRVINE, R. 2, Hershey, Michigan.

WHITE HOLLAND TURKEYS The farmers friend. No crop failure when you raise them as they eat all insects that destroy crops. Toms \$15.00, Hens \$10.00, Trios \$30.00. ALDEN WHITCOMB, Byron Center, Mich.

HIGHEST PRICES PAID FOR LIVE AND Dressed Poultry, Veal, Eggs. A square deal always. C. E. McNEILL & CO., Chicago, Ill. 525 W. So. Water St.

year, and a larger volume yet remains to be marketed, the survey shows. Movement from Michigan, New York, and Wisconsin has been especially light, where approximately 50 per cent of hay remains to be marketed.

Bad roads and a scarcity of cars are reported to have retarded the movement of hay in the central west while severe winter weather has held up shipments in New York and New England. Movement in the southwest has been larger under mild weather conditions.

General demand for all kinds of hay is reported as having been about normal, but large local supplies in the south have cut down somewhat the demand for timothy from central western markets. High freight rates have restricted marketing in the far western states.

Timothy prices at the principal markets are about \$1.50 per ton lower on an average than at the corresponding time last year, but have advanced about \$2 per ton during the present crop year. Alfalfa prices have advanced about \$2.50 per ton during the marketing season but are on practically the same level as April 1, 1922.

Stocks of hay in consuming channels are about normal and there is small prospect of any material increase in the demand, the department says.

Prices

Detroit—No. 1 timothy, \$16@16.50; standard, \$15.50@16; light mixed, \$15.50@16; No. 2, timothy, \$14@15; No. 1 clover mixed, \$13@14; No. 1 clover, \$13@14.

Chicago—No. 1 timothy, \$21@22; No. 2 timothy \$18@20; No. 1 light clover mixed, \$19@21; No. 1 clover, \$15@16; No. 2, \$13@14.

New York—No. 1 timothy, \$27; No. 2 light clover mixed, \$23@25; No. 2 timothy, \$25@26.

Prices one year ago—Detroit, No. 1 timothy, \$20@21; standard, \$19@20; No. 2 timothy, \$17@19; No. 1 light mixed, \$19@20; No. 1 clover mixed, \$16@17. Alfalfa—Chicago, \$16@23; Detroit, \$11@15.



Week of April 15

This week begins with strong winds and rains in Michigan. Temperatures will average about normal or a little above until about Tuesday.

During the middle days of the week we expect generally fair, sunshiny weather, good for most growing crops and the seeds already planted. Temperatures will not be very low.

At the end of the week weather will be warmer with an increase of wind.

Week of April 22

The very beginning of this week will be sunshiny in Michigan but during Monday or Tuesday rain will set in which will be heavy in sections of the state before Thursday. Winds will be of gale force.

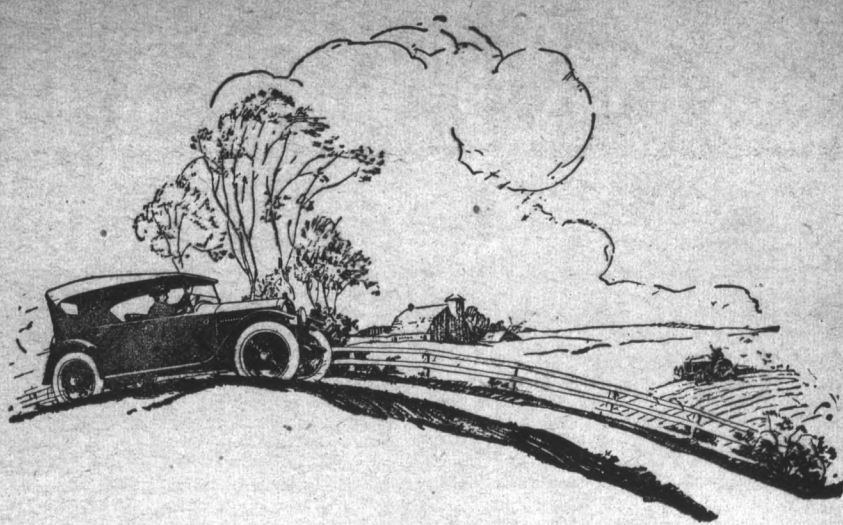
Stormy conditions through the middle part of the week will hinder spring seeding but will benefit pasture land.

Temperatures will fall below the normal about the 25th and for the next two or three days the ground will average cold and wet. By the end of the week temperatures will be rapidly rising bringing assurances that next week will average warmer than usual.

Peas and Beans

Believing the average temperature will be below normal for the season, we would say that peas would have a pretty good year. Canada field peas should do well in Michigan this year by planting now but soys and cow peas will be better if planted a little later than usual—say about the end of May.

Planting time for beans this year will be backward, cold and wet on the average. Conditions will remain wet during June and part of July, but as the temperature is expected to average above normal for the three weeks centering on the solstice date, germination and growth, once started will be rapid. Late plantings will be successful.



Owners Say, Hupmobile Costs are Lowest

The most amazing thing about the Hupmobile has yet to be learned by the vast majority of motor car buyers and owners.

That is the fact that our owners' carefully kept cost-records, and their letters to us, strongly indicate that the Hupmobile cost of operation and maintenance is lowest among motor cars.

This is particularly true when the records cover a period of years.

ords cover a period of years.

What we are repeating here is the actual experience of Hupmobile fleet-owners, and of individual Hupmobile owners, who previously operated cars generally conceded to be among the most economical five manufactured,—and who have formed their judgments on the sound basis of cost-per-mile.

Hupp Motor Car Corporation, Detroit, Michigan



Hupmobile

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FARM AND LANDS

FOR SALE—300 ACRES SANDY CLAY Loan Swamp Land, easily cleared, in English speaking settlement, 10 miles from Onaway with school privileges. Will break this tract into 400-240 an 160 acres. \$10.00 to \$12.00 per acre. \$1.00 an acre down, balance long time. Balance can be paid out of annual Hardigan or Grinnis certified seed crop at option of purchaser—if grown according to the instructions from Michigan Agricultural College. No finer Alfalfa, June or Sweet Clover soil in Michigan. Our Alfalfa yields as high as 8 bushels per acre. Sheep is our most profitable live stock year in and year out. Here is a combination hard to better. Small clearing, building and shed on 400 acre tract. First payment loaned to settler 5 years at 6 per cent, secured on live stock when winter feed and shelter is provided. JOHN G. KRAUTH, Millersburg, Presque Isle County, Michigan.

30-ACRE MICHIGAN FARM, 1000 APPLES and Cherries. Cow, cream separator, full implements, tools included if taken now; pleasant, healthful surroundings; in sight city; machine-worked fields, spring-watered pasture, woodlot; excellent orchard; attractive 7-room house, good barn. Owner called away \$3,000 takes all part cash. Details page 33 illus. Catalog Bargains. Copy free. STOUT FARM AGENCY, 427EJ Marquette Bldg., Chicago, Ill.

FARM FOR RENT OR TRADE—TESSMAN Farm, 120 acres near Gratiot, on Quick Road, Chesterfield 10 room house, 2 barns, windmill, orchard, etc. Will subdivide 10 acre tract. Rent \$600 year. GEORGE GIES, owner, 311 Majestic Bldg., Detroit, Mich. Phone Cherry 0065.

160-ACRE FARM AT A BARGAIN—GOOD buildings, 60 acres clear, all fenced. 1/4 mile from school. FRANK GLAWIE, Okequoque, Mich., Presque Isle County.

30 ACRES, GOOD HOUSE, 40 FARM LAND 40 swamp. Grass and water good for muskrat raising. Rent or sell. Inquire BOX 282, care Michigan Business Farmer.

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WANTED—SINGLE MAN FOR YEAR. Prefer some feeding experience, good wages and good home. State wages in first letter. Position open April 1st. CHAS. HAUCH, Whittemore, Michigan.

WANTED POSITION—OUR SUCCESSFUL farm manager, 36 years of age, widower, no children. This man is honest, clean and a hard intelligent worker. Graduate U. of Wis. and life experience as farmer. Address him, HERMAN H. FRANZEN, Akron, Lancaster County, Pa.

GENERAL

LET US TAN YOUR HIDE—COW AND Horse hides for fur coats and Robes. Cow and Steer hides into Harness or Sole Leather. Catalog on request. We repair and remodel worn furs; estimates furnished. THE CROSBY FRISIAN FUR CO., Rochester, N. Y.

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STRAWBERRY PLANTS FOR SALE. Senator Dunlap, Gibson and Dr. Burrill, 60 cts. per hundred, \$4.00 per thousand. Postpaid. Progressive Everbearing, \$1.00 per hundred. Postpaid. Cuthbert Red Raspberries, \$1.00 per hundred, \$9.00 per thousand. Postpaid. ROBERT J. DECURSE, Ovid, Mich.

SPECIAL OFFER—300 STRAWBERRY Plants, 150 Senator Dunlap, 150 Warfields \$2.00 postpaid. Also Raspberry plants. Prices reasonable. 17 years experience. Satisfaction guaranteed. Catalog free. Write today. J. E. HAMP-TON & SON, 20, Bangor, Michigan.

STRAWBERRY PLANTS FOR SALE—SEN. Dunlap \$3.50 per 1000. Gibson's \$4.50 per M. Five other varieties. Also Raspberry plants. Price list free. FRED STANLEY, 124 Main St., Bangor, Michigan.

CERTIFIED COLLEGE WONDER OATS. Purity 99.7%, germination 92, test weight 37 pounds. Write for prices. HOMER GOULETT, Kawkawin, Michigan.

FANCY MIXED COLOR GLADIOLA BULBS. Produces large flowers. 1 1/2 to 2 inches 25c doz.; 5 doz. \$1.00. 1/2 to 1 1/2 half price. Postage paid. MARTHA OSMOND, Vernon, Michigan.

SEED POTATOES—CERTIFIED POTOSKEYS Northern grown. L. D. DUNLAP, Lapeer, Mich.

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Guaranteed Bargains!

Sateen House
Dress For
Stout Women

\$1.98

A very attractive model of lustrous black sateen for women who require extra size dresses. This pretty house dress has attractive cretonne trimming on collar, cuffs and flower basket pockets. Also the charming applique work in harmonious colors on waist and pockets. A garment that will give service beside. Sizes 39 to 53 Bust. Order by No. 96E-6054. Send no money. Pay \$1.98 and postage on arrival. State size wanted



State Size

Voile Dress Bargain

\$1.98

Very attractive voile dress with organdy trim. Beautiful figured voile with new side panels. Youthful organdy collars and cuffs. Also pretty vestee insert of organdy and neat organdy sash. Misses' sizes 14 to 20. 32 to 38 Bust. Women's sizes 34 to 46. Be sure to state size. Order Navy by No. 96E6712. Order Open by No. 96E6713. Order Rose by No. 96E6714. Order Lavender by No. 96E6715. Send no money. Pay \$1.98 and postage on arrival.



Standard
Cord
Guaranteed
8,000 Miles

Sharood's Standard Cords

Guaranteed 8,000 miles; **\$8.98**

30x3 1/2 size. This 8,000-mile guaranteed Sharood's Standard Cord Tire is made especially for the Ford, Chevrolet and all other cars using 30x3 1/2-inch sizes. Built just like the Oversized Cords but costs much less. Same sturdy construction but not oversized. Wonderfully serviceable and a big bargain. Order by No. 96D4090. Send no money. Pay \$8.98 and postage on arrival.

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Fresh stock of heavy, non-skid tires of live rubber. Generously oversize. 6,000 guaranteed, but often give 8,000 to 10,000 miles. Choice of non-skid or rib tread in 30x3 sizes. Others are non-skid. Pay only bargain price listed below and postage on arrival.

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96D4024—32x41.75
96D4025—33x41.79
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Every item on this page is a big money-saver. Each is typical of the wonderful bargains that have made Sharood famous as offering constantly the greatest values in the United States. For here are the season's very latest fashions—the newest styles—in honest merchandise at honest prices. Spring is on the way. It's time to spruce up. You'll save the most money by ordering everything from Sharood.

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Oxfords
For Women

\$1.98



Be Sure
To State
Size

Classy stitchdown Oxfords for women. Wonderfully comfortable and stylish. Uppers of Patent leather or dark brown calf. Smooth leather insole. Flexible stitch-down oak outsoles. Low rubber heels. Sizes 2 1/2 to 8. Wide widths. Order Brown by No. 96A263. Send no money. Pay only \$1.98 and postage on arrival. Order patent leather by No. 96A264. Send no money. Pay \$2.48 and postage on arrival.

Women's
Patent
Leather
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Finished
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Sizes 2 1/2 to 8, wide widths, in black patent leather or brown calf—a stunning one-strap model with imitation shield tip medallion, effectively perforated. Has medium rubber heel. Order patent by No. 96A72, \$1.98. Order Brown by No. 96A73. Send no money. Pay \$1.98 and postage on arrival.

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Fine scout shoe of soft pliable brown leather. Absolutely guaranteed barnyard proof; reliable sturdy soles; low broad leather heels; leather insoles; reinforced leather back stay. Guaranteed to stand hardest wear. Wide widths.



\$1.59
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Women's Soft Kid Slippers

Black or Brown

\$1.49



Always
Mention Size

Soft kid leather slipper. Stylish strap model with two buttons. Medium round toe with medallion tip and perforated wing tip and quarter. Cushion insoles. Medium rubber heels. Solid oak leather soles. A bargain at our slashed prices. Sizes 2 1/2 to 8. Wide widths. Order black by No. 96A228. Order brown by No. 96A229. Send no money. Pay \$1.49 and postage on arrival.

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State Size

GUARANTEED

FOR SIX MONTHS'
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Work Shoe

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Six months' guarantee

Two full green chrome waterproof leather soles, solid leather heels. Munson army type. Barnyard acid-proof. Sizes 1 to 5 1/2. Wide widths. State size wanted. Send no money. Order by No. 96A550. Pay \$2.69 and postage on arrival.

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