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IN man there is born an inherent desire to get next to the ground. There is no greater stimulant to wholesome living than a normal fulfillment of this desire. May it not be that this is why our rural sections grow good people as well as good crops—and why our cities use them up.

MICHIGAN SECTION THE CAPPER FARM PRESS



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DETROIT, JUNE 2, 1923

CURRENT COMMENT

The spirit of cooperation demands that everyone who participates in the growing, transporting, preparing and marketing of goods is entitled to a fair return for his effort, and no more.

We have graduated from the days when "business is business" to the days where our course calls for humble devotion to that new classic, "business is service."

Developments at M. A. C.

At a meeting of the State Board of Agriculture, held at the college on Friday of last week, Dr. Friday tendered his resignation as president of M. A. C. He asked for immediate acceptance, on the ground that it was apparent that he and the board could not work in harmony after what had transpired and that for the good of the institution this action was necessary. Immediately following the filing of his resignation Dr. Friday announced his acceptance to a call to the Chair of Economics in The New School for Social Research, of New York City, together with an editorial position on a prominent eastern journal, which offers he stated had come to him just previous to the secret meeting of the board of agriculture on the evening of May 15.

This action was, without doubt, the best thing which could have happened for the present good of the college, regardless of the merits of the controversy which was precipitated by the secret meeting of the board held during President Friday's absence, as noted in last week's issue of the Michigan Farmer. The board has appointed Dean Shaw acting president, which is also unquestionably the best thing which could be done for the present good of the college. Dean Shaw's long service as executive head of the agricultural division of the college, together with previous service as acting president of the institution, insures the intelligent direction of its work under his administration and the passage of the period of regrettable upheaval in the institution with a minimum of harm to its work. Regardless of their opinions as to the merits of the controversy which caused the upheaval, every reader of the Michigan Farmer should be with Dean Shaw in minimizing its consequences to the college and its work for Michigan agriculture.

In this connection, however, the

Michigan Farmer has not forgotten its obligation or its promise to give to its readers all obtainable facts regarding the unfortunate developments at M. A. C. To this end the editor wrote a letter to each member of the board, the president and secretary of the college, the state leader of county agricultural agents and the governor of the state, enclosing a copy of the editorial comment published in our last issue, and stating that we would be glad to publish any statement regarding the matter which they cared to make.

This invitation brought but two written replies. One of them was from a member of the board stating that he had read the editorial and had no comment to make. The other was from Dr. Friday, who wrote as follows:

I have just had your letter with advance copy of your editorial comment. It is so excellent and fair that I do not wish to add anything to it or to change any part thereof.

If ever I had any doubt about the honor, the common decency, of the fairness of the press of Michigan, that doubt has been dispelled by the events of the past week. No man with a fair case need hesitate to trust himself to the journalists of the Wolverine state. I appreciate your stand, and thank you heartily for your courageous efforts to put this whole controversy before the people in its true light.

No pertinent facts regarding the matter have come to our knowledge during the past week, which satisfactorily explained the situation. Trivial rumors of department friction cannot be accepted as the underlying reason. It is to be hoped that the members of the board may yet take the farmers of the state into their confidence by explaining the reasons underlying their action. If this is not done the farmers will have no choice except to believe the allegation that it was President Friday's economic program, which many farmers and leaders of farm thought have declared to be sound.

We have no desire to prolong a controversy, which cannot be too speedily and finally closed. We still believe, however, that the farmers of the state have the best possible right to know the facts in this case, so far as they relate to the college policy and program, both past and future.

Backbone Backlogs Backstops

So is the farmer and the farms of the nation characterized by no less a personage than the prominent statistician, Roger W. Babson. He takes pains to make it clear, however, that the farmer is not the sole cause of prosperity any more than a backbone is a complete human being. Arms and legs to manufacture, a circulating system to transport and distribute, and a brain to direct and keep all parts working in harmony, are each equally essential for a healthy, normal body or nation.

As good health is the result of building up all parts of the body together, so good business is the result of building up all departments of the nation together. A big strong backbone, says he, is of little use if the arteries are hardening or the limbs become paralyzed.

In a similar vein Mr. Babson likens the farms to backlogs which keep our fires from going out, and to the backstops which are of great importance in the national game of business. They preserve our equilibrium and prevent us, as a nation, from going to pieces during periods of stagnation, or when threatened with defeat. Farms and homes owned and operated by the people who inhabit them are a sure prevention against anarchy. Emphasis is laid, however, upon the fact that they must be successful. Contentment and a feeling of security being essential to stability.

In this connection, he points out that the safety of the nation may not be

proportional to the number of farms, but rather to the number of successful farms; and that, therefore, it may be as dangerous to have too many farms and farmers, and a consequent overproduction and low prices, as to have too few.

That may be the case against the farm at the present time, and if it is we need not mourn that so many of our farms must lie idle and we struggle along short of help on the others. To express it otherwise, it is only an evident indication of water seeking its own level.

The Industrial Migration

As usual with every economic development which affects agriculture, as every economic development does, the alarmists point to the migration of rural population to industrial centers as an additional handicap to agriculture and a menace to the industry.

We believe that a little constructive thought will convince the reader that the operation of economic laws ultimately tend toward the establishment and maintenance of an economic equilibrium, rather than otherwise, and that there is no good reason to "view with alarm," the operation of economic law in this case. The facts are that under existing conditions the farm factory is about the only manufacturing institution which has been producing a surplus above immediate demands for consumption. For this reason prices for farm products have not kept pace with commodity prices in other lines of production. Labor prices have consequently soared with the demand for factory products not fully met by production, with the result that many rural residents and even some farmers have migrated to the industrial centers.

While this is a handicap to those who stick to the farm by shortening their available labor supply, with a probable reduction in their production, yet there is every reason to believe that they will produce enough for all demands, and that their reward will be greater than would be the case if the handicap were lacking. Already prices for farm products are on the upward swing, and a slight decrease in production all along the line will accentuate the movement, until finally the operation of economic law will stabilize prices of farm products and prices of general commodities on a fair and even basis. Quite probably the price pendulum will swing well past the center with the gathered momentum of advancing prices for farm products. Then the alarmists will turn to the expression of fears for the fate of the consuming public. But the operation of economic law will save the day for them, too, just as it will for the farmers. There will be no need for a "back to the farm" movement. The emergency will supply the incentive.

There is a tendency in the present era of organization to disregard the operation of economic law in attempts to stabilize industry by artificial means. We have a present example in the coal industry, where both operators and workers are well organized. So far as the facts have been developed we have many more coal mines and many thousand more coal miners in the business than are needed to supply our fuel requirements. The organized miners have forced wages up to a high point, necessary to provide them a living with only part time work. The operators produce only when they have orders in sight for immediate delivery. And the public pays the overhead for the maintenance of part time production in this basic industry, or goes cold because of inadequate transportation facilities when the fuel is needed.

This situation is uneconomic and in-

defensible. There should be an industrial migration of coal miners and a consequent reduction in production overhead. Coal is a necessity and should be economically produced and distributed, but economic law has been temporarily interfered with in this industry, without, we believe, any probability of permanent benefit to those engaged in it.

The school of thought which would bring about a similar interference with the operation of economic law in connection with agriculture or any other industry, would, if successful, bring about a like result. It is undoubtedly better to have production reduced to fit the demand by natural means, which releases men to gainful occupation in other industries and adds families to the army of consumers of farm products, than to undertake to achieve the same result by artificial means which would add to overhead costs, instead of reducing them, even if this were possible in a great industry like agriculture. The beneficial result will be more quickly apparent and of longer duration. The so-called industrial migration spells prosperity, rather than the reverse to farmers. Those who stick to the farm will receive their reward, and that more speedily than they now think.

Rattles

THEM what has traveled on the road of life, know that its got a lotta ruts, bumps and mud-holes in it. If we ain't fortunate to be born with the springs of luxury under us, we just kinda gotta rattle through life.

In the beginnin' we like rattles, but later we get rattled when we gotta make a speech in front of the whole room at school.

For inst., there's my Oughto. It still goes and comes good, and I kin make it look nice and shiney by rubbin' it with a little oil. But old age is gettin' it and its got what you call a bad case of rattles. Seein' I can't get rid of these rattles, I'm figurin'



on gettin' a piano tuner to fix up these rattles so they would make musick, instead of just plain noise, which is aggravatin'. For me and Sophie it's alright, but I kinda hate to have company find out our Oughto's got what you call vocal disabilities. It's just about as entertainin' as hearin' a man learnin' his first lessos on the coronet. The coronet player gets harmonies after a while, but the Oughto don't. As hard as I kin try, I know I kin never make a musishun outta my Oughto.

I am what you call one of those optimists. So I say there ain't no noise but what has got some good in it. For inst., the Oughto is competishun to Sophie when she is tryin' to give me drivin' orders. Also, I'm lookin' for a lower rate of insurance, 'cause folks will know when my Oughto is in the midsts and will look out for it. I won't have no more accidents. I'm thinkin' about throwin' my horn away, 'cause I don't use it no more.

The greatest advantage of rattles is that I don't need none of those speed clocks on my dash board. For inst., when I'm goin' ten miles anour, my tire holder rattles. When it's fifteen, the front fender gives the signal, and twenty the steerin' relieves the fender of its job. When I'm going twenty-five miles, the wind shield gets the shakes, and the runnin' board starts a hummin' at thirty. I kin always tell when I get to thirty-five miles, 'cause that's when Sophie gets a rattlin' good and hard. Then I cut down the speed 'cause I like to hear the other rattles better.

HY SYCKLE.

Increasing Sales at Roadside Markets

Many Do Not Succeed Through Failure to Observe Well Recognized Rules of Salesmanship. By Chas. H. Smith

DURING a tour through Michigan the writer was struck by the number of roadside markets to be seen in front of farm houses. Especially were these markets numerous in the vicinity of the larger cities of the state. Upon approaching a city of any size the number of offerings displayed in front of the farm houses immediately increased so that one learned to know of the proximity of the city limits by the number of roadside markets rather than by the signboards.

On this trip, for the time being, at least, we played the role of the consumer rather than that of the producer, and this gave us an opportunity to judge the roadside markets from the buyer's standpoint. From our observations it seemed to us that there was a great opportunity for improvements in nearly every place where a market had been established in the front yard of the farm house.

Do High Prices Kill Sales?

In the first place, prices were too high. This is, of course, the constant complaint of the consumer but the criticism in many instances certainly seemed justified. We stopped at a place where muskmelons were offered for sale. The farmer quoted prices at from fifteen cents for small melons to twenty-five cents for large ones. Back at the city of Grand Rapids from which we had just come—a distance of forty miles—the grocers were retailing small melons at three for twenty-five cents, and twenty cents each

for the larger ones. The farmer told us that he trucked most of his crop to Grand Rapids and sold it there. Yet we were able to purchase melons of nearly the same quality from grocers in this city at a considerably less price than that quoted by the producer on his farm. When it is remembered that the farmer had to truck his melons forty miles to this market, and that the grocers added their profit to the prices they paid the producers—and yet were able to undersell this farmer at his roadside market where he had no transportation expenses—it seems only reasonable to conclude that he was charging too much. Too much, certainly, to make any success with his own market.

Indeed, many prices asked for fruits and vegetables by the proprietors of the roadside markets, when compared with the retailers' prices in nearby cities, forced upon us the unpleasant conclusion that some of these folks were asking entirely too much for their offerings and thus killing their sales.

Appropriate Signs.

In the second place, the passing autoist who is, of course, the patron of the roadside market, usually has no advance notice that such markets are just ahead of him. As he speeds down the road at from twenty-five to thirty-five miles per hour he suddenly comes abreast of a display of fruits and vegetables with the sign "For Sale" written above it. It may be that he would like to buy something offered but be-

fore he can stop his car he has passed the place. Then, rather than back up, he keeps on going, saying to himself, "Oh, well, there'll be another chance to buy at some place ahead," and the opportunity for a sale to him has vanished insofar as the market behind him is concerned.

The way to overcome this difficulty is to give motorists an advance notice of the market ahead of them by placing two good-sized blackboards, one on each side of the market, on the right-hand side of the road as the motorists approach the roadside market. The blackboards should be far enough from the market to give the autoists an opportunity to slow down and stop easily when they reach it. At the head of the blackboards should be the notice, "Roadside Market Twenty Rods Ahead," and under this should be listed the products for sale and the prices. Directly in front of the market a third sign should be placed reading, "Roadside Market Here."

Give Customers Service.

In the third place, little if any attempt had been made by any of the proprietors of roadside markets to present their offerings attractively. Usually the products for sale were merely dumped on the lawn in front of the house, or at best placed on an old table or box. Attractive displays of the products would greatly increase the number of sales that could be made. Very few farmers gave a thought to containers for the products sold. Usu-

ally the purchaser was expected to have the purchase dropped on the floor of his car without its being wrapped or placed in a sack. This lack of any wrapping is in itself a barrier to selling many people. A supply of large paper sacks would help to overcome this objection without adding greatly to the selling costs.

The roadside market offers an almost unlimited opportunity for selling many farm products. A great many people from the city make it a practice to start out in their cars and "scout" for attractive offerings on the farms. Many farmers raising small fruits dispose of their entire crops from their front yards to buyers who drive out especially to patronize such markets. The producer is thus relieved of the problem of finding a market for his products and transporting them to it. The patrons of these markets are attracted by the freshness of the fruits and usually are quoted a lower price than that of the grocers.

But to be successful in this sort of selling the roadside market proprietor must quote fair prices—prices which should be at least a shade under the city retailer's figures; must let motorists know the location of his stand before they are upon it; and must make his offerings appear attractive as possible to prospective customers. In short, he must conduct his roadside market with some regard for business efficiency. Only as he does this will he be able to enjoy the greatest measure of success in direct marketing.

Getting Johnny and Mary to School

What One Consolidated School Learned About the Cost of Student Transportation

By Paul J. Rood

STUDENT transportation is unquestionably one of the most vital problems in the administration of a consolidated school. This is very forcibly established in the March issue of The American School Board Journal, in which T. L. Head writes as follows:

"When the history of consolidated schools has been written, and the story of consolidated projects which failed has been faithfully recorded, it will then be seen that the lack of transportation organization has taken a large toll. When transportation is at all necessary, it is so vitally connected that the school succeeds or fails in proportion to efficiency of the administration of transportation."

The school children in thirty-three of the thirty-eight consolidated schools of Michigan which will receive state aid this year, 1922-1923, are now being transported by contractors whose contract covers a period of ten months or less. The equipment for transportation is, as we might reasonably expect, as temporary as is the period of the contract. The transportation contracts are usually let to the lowest of the competitive bidders so that the board of education is virtually asking the question, "For how little money can you do this work for us?"

The logical outcome of this situation is a rather

high cost to the school for inferior service with meager equipment and little, if any, profit to the contractor. The result is general dissatisfaction on the part of the contractor, the board of education and patrons. Compare this, if you will, with school-owned and operated transportation. The contract or places the emphasis on low cost; the school ownership, on economical service; the contractor works on a

cost plus basis; the school transports at actual cost.

Although it may appear feasible under some circumstances for a school to own and operate its own motor transportation vehicles, it will seldom if ever be desirable for a school to own horses with which to transport pupils when heavy snowfall or mud may render roads impassable for the motors. The cost of maintaining hors-

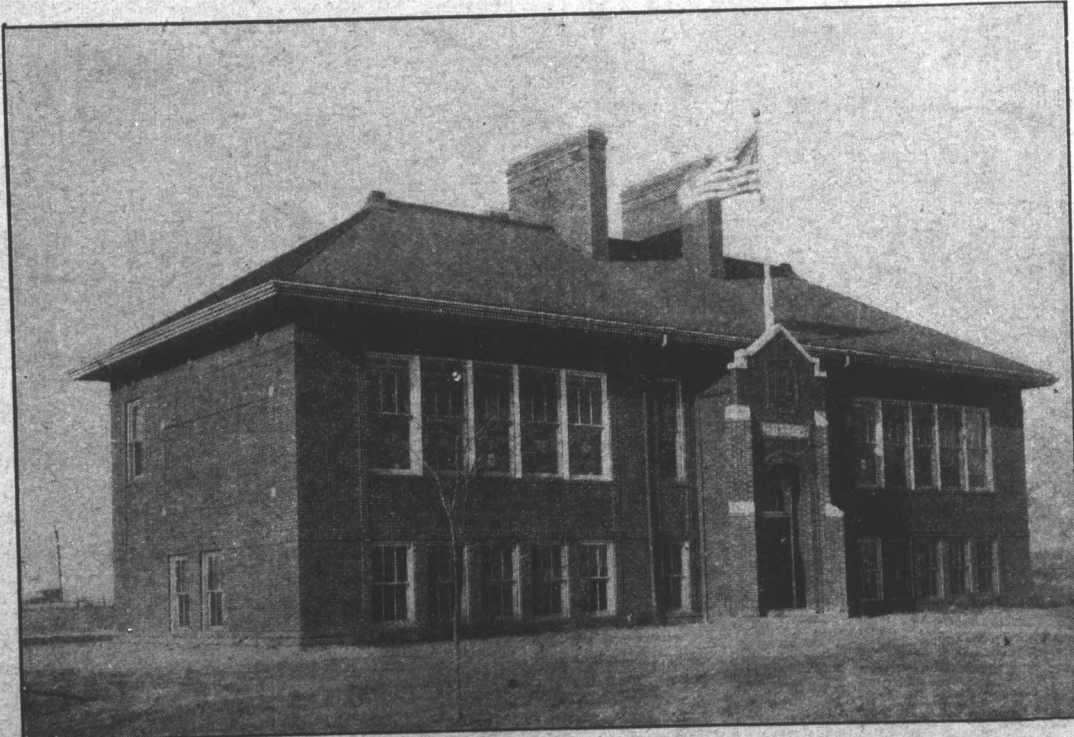
es throughout the year for the short time they are needed in winter, would make too great an overhead for the school transportation system to stand.

At least one consolidated school in Michigan has met this situation by owning and operating its own transportation motor vehicles with student and teacher drivers and owning, also, horse-drawn vehicles. Since its student drivers are minors, the contract is with the fathers and provides for horse-drawn service with the father's farm horses and the school's horse-

drawn vehicle when the roads are impassable for motors, at the prevailing wage of team labor per day not to exceed six dollars. It is altogether probable that this, or similar arrangement might be made very readily in other consolidated schools.

Michigan has five consolidated schools which depend entirely on motor transportation, and thirty-three which provide for horse-drawn transportation when the use of motors is impossible. There are 166 routes which are operated by contractors, and nine which are operated by school-owned vehicles. There are not more than six or seven teacher and student drivers. The average number, in the state of Michigan, of pupils per bus is twenty-four and seven-tenths. The average distance traveled by the first pupil to enter the

(Continued on page 744).



An Economical Solution of Getting the Boys and Girls to and from School would Greatly Increase the Popularity of the Consolidated School.



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A Dept. of Michigan State Farm Bureau

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PRODUCE EXCHANGE**

DETROIT, MICHIGAN

2729-31 Russell St. Cadillac 2270

Gossip from Cherry Hill

By O. W. B.

Cherry Hill, Mich.,
May 26, '23.

Dear Pete:

This is Saturday afternoon so I thought I'd write you a letter. It's been raining and I got the seed corn all shelled and the planter fixed up and that's about all there is to do till the rain stops, so that's why I'm writing this letter.

School will soon be out and you'll be coming home to your farm for the summer. Spose you have had a heap of fun down at the college this year and you're gettin' purty near the end. Nother year and then what you going to do? I been thinkin' quite a lot about you and your future.

Saw Mary Martin a few days ago at the ice cream social the Christian Endeavor Society give and I reckon she's lookin' for you back soon too. Her school is out now and she's going to school herself this summer down at the college to the summer school. I think that's pretty fine but don't you go and spoil all her plans. I guess by what she didn't say you got intentions an' all I say is don't get in a hurry. Give her a chance to get a little more education down there herself. I wish I had had sense enough to finish up, maybe I mite get along here a little better.

Say Pete what do you do for them little green bugs that gits on the roses and I saw some on the apple trees on the new growth. Vera's awfully worried for fear it will spoil the blooms and the apples. If you know anything good for them, (I mean not good for them) write me quick cause Vera don't give me no rest, she says as how Sam Perkins used tobacco juice on hisn' an they all left. Well I don't wonder they left for when Sam gits his spitter into action they aint no chance for any livin' bug on his place.

But you know I don't use the weed in that way and I don't smoke much either. Vera keeps after me an says it's bad for my heart an I guess she's rite. Besides she don't like the ashes around the house which I admire her for.

We got quite a few young pigs and a lot of the other young things that keeps me and Vera going almost day

THOSE of our readers who fail to read the accompanying letter of Henry O'Hope, and others to follow from week to week, will miss something worth while. In order to give you the proper bearings, I might say that Henry is a progressive young farmer who is in the thick of things at Cherry Hill. As you will guess, he is making a real effort to get the best for his community. His uncle, David, is a grisdled old farmer, past the meridian of life, but with the light of present-day needs very clear to him. Pete Robinson is a senior at the Agricultural College and an old friend and fellow-soldier of Henry. Mary Martin plays an important part in life at Cherry Hill, as does also Vera, Henry's wife. Jim Hooper never quite got all the selfishness extracted from his life, while Hank Smith keeps everybody a roaring. Here is Henry's first letter:

an' night. This rain ain't good for the chickens but we got the young ones all on the porch which is all right only they holler so much I kin hardly think. Aint it funny about a young chicken, all he thinks about is eat, and that's where he's different than just human beings, but I aint goin to philosophize to you nor try to compare my brains or yours to a chicken but say Pete when you get home I got a plan that maybe we can do something.

You see our church ain't had any preaching for a long time. First place wat we had was good as far as it went but it didn't go fur enough and that minister we had didn't quite understand wat the church out here was for. He came out from Carey and said, lestwise he told Jake Stackem, who sells feed and machinery there that he hoped the members would come to his church by an by an close up the church for he says they can't afford a full time preacher out there anyhow. Pete, that made me mad. We got a good community here but we don't want no fellow to come in here an divide us up an classify us like we use to do bugs in Prof. Pettit's class. Hymenoptera, Coleoptera an them bugs wat lives under water for a wile etc. Diptera wasn't they? Well that's wat some preachers seem to want to do. My idee is that we ought to have our religion comin' an up to date as much as the co-op has its business, and the Grange an the Marketing and the threshing. Other words we ought to think our religion the same as we think the other things in our life.

Reminds me of a yarn I heard not long ago of a lady who was deaf goin' along the street an she come to were there was an Italian grindin' out peanuts in a peanut roaster. She listened for a long time an watched him a grindin away an she kept a sniffin an then she says, "No sir, I ain't goin to give you nothin' for that music, I can't even recognize a tune an besides it smells as tho somethin' is burning inside." Some preachers are like that wen they think of the country community church. You kin draw your own conclusions.

Well the rain's over an sun is shin-

ing. I got some fence to fix up. Write me soon an I'll tell you more about my plans next time.

Your old Side Kick
HENRY.

THE FARMERS' STRIKE.

IT is quite the common boast of late that farmers never strike. Dean Eugene Davenport, of the University of Illinois, in an article in The Saturday Evening Post, remarks that, "The farmers have not struck; they have stuck, and they will stick as long as possible, for that is their habit." With all deference to such high authority it is true, nevertheless, that a constant strike has been in progress among farmers for some years, and one fraught with as great significance and peril to the people of this country as the recent strike among coal miners, or that of railway labor, although not quite so immediate in its effects.

Of course, owners or proprietors in any line of productive industry do not go on strike, and these comprise a considerable proportion of the labor employed on the farms, but among those not so closely tied down the strike has been quite general. For years the boys, as they have approached manhood, have been quietly laying down their tools and quitting the farms and with no present intention of ever returning.

They have not been making any noise about it, there have been no processions carrying banners, no picketing nor effort to prevent others taking their places—if any were so disposed, no violence nor disturbances such as are quite common in strikes ordinarily. So the farmers' strike has not been so marked or noticeable, but nevertheless, it has been going on constantly. In fact, what bright, energetic, enterprising young man could be expected to work twelve to fifteen hours on the farm for two or even three dollars, and with uncertain employment one-third of the year, when he can get five dollars for eight hours in town, with its brighter lights and greater attractions?

This farmers' strike has been progressing so quietly and without tumult that it doubtless has not been so apparent or observable to men living in the cities, and this is, no doubt, the reason why they so commend the farmers for sticking, but within the writer's observation very few of the young men have settled on the farms for several years. A few who are inheriting farms are settling on them, but those not so attached are almost to a man entering employment elsewhere. This is merely the working out of a natural economic law, the law of equilibrium. And so the census shows that while the urban population is increasing the numbers on the farms are decreasing.—E. Hutchins, Allegan County.

KINDNESS GREATER THAN BATTLESHIPS.

THE warm surge of gratitude engendered in Europe by American relief activities, which saved the lives of ten times as many people as were killed during the great war, will be of greater value to the future of the United States than all the battleships that could be floated in the Atlantic ocean, said Secretary of Commerce Herbert Hoover, who directed the American relief work.

Says Sam: If you're building a house, and a fellow will show you where you've got the foundation wrong, you'll thank him. But if you're building, say, a marketing organization, and he shows you a fault at rock-bottom why, dern him, he's a knocker!

There are many to cut a stick when the fight is over.—Japanese Proverb.

One Mower Knife Instead of Four

All you need is one knife for each mowing machine. You don't have to change dull knives, you change blades. That's where you save money when you use the

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SICKLE**
PATENTED

"The Safety Razor of the Fields"

It's the new mower sickle with renewable blades; made so you can replace dull or broken sections without even taking the knife out of the cutter bar. The blades are double locked in place and can not loosen until you yourself pull the locking key.

You carry a set of new, sharp blades in the tool box and change them right in the field. You can grind up the dull ones when you have time—and it's easy to grind every blade clear to the heel, when you handle them singly.

Every User Likes It

"The time saved in changing the knives will compensate the farmer tenfold on the old-fashioned way."

"I drove half a mile on very rough road with the team trotting, shaking the machine and nearly throwing me from the machine by the jars, and not a blade in the Sickle Knife was loosened."

(Farmers' Names on Request)

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I want to know the nearest dealers handling A-M-F Sickles. Send me circulars!

I am using a _____ ft. _____ mower.

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Farm Poultry Pays Profits

An Investigation Proves Biddy's High Agricultural Standard

By Howard M. Eliot

THE farm poultry flock is one of agriculture's most popular institutions. Out of the 196,000 farms of all types in Michigan, 180,000, or ninety-two per cent, have a poultry flock. Poultry is, therefore, a subject of almost universal interest among farmers.

Poultry represents a substantial agricultural investment. The poultry in Michigan is worth \$11,600,000, and the poultry buildings and equipment represent an amount almost as large. The value of the Michigan poultry investment is, therefore, approximately \$20,000,000.

In 1919 the eggs produced from this investment were valued at \$23,500,000 and the poultry raised at \$11,400,000, a combined total of \$34,900,000. This gives some idea of the magnitude of our poultry enterprise, as revealed by the 1920 census.

That a farm poultry flock is one of the best paying parts of a business is shown by production and cost figures on seventy farms in Wayne, Lenawee, Jackson, Shiawassee, Montcalm and Emmet counties, Michigan. The figures are for the year ending March 31, 1922, and are taken from records kept by farmers and supervised and summarized by the Farm Management.

The returns from the flocks on these farms averaged \$179.22 above feed and other direct costs. That is, the poultry on these farms paid their own costs and in addition made a contribution of \$179.22 towards farm overhead and farm profits. That these figures apply to the ordinary farm flock is shown by the fact that these seventy flocks averaged 99.4 hens. The average returns per hen, therefore, is \$1.80 above direct costs.

Table 1 shows yields, direct costs, and returns for poultry on seventy Michigan farms for the year ending March 31, 1922.

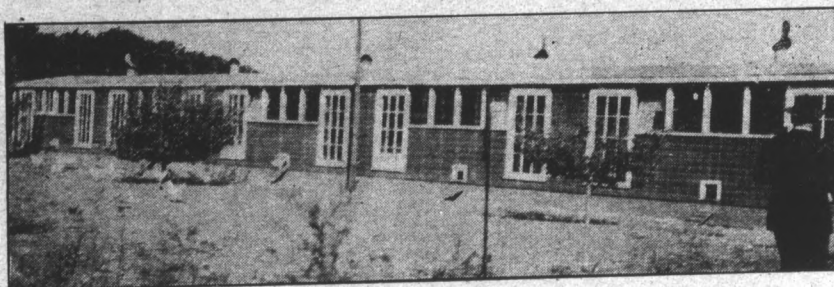
Yields.		Average Per Farm.
Items.	Amount.	Value.
Egg sales	453.1 doz.	\$103.76
Egg sales	354.1 doz.	\$103.76
Poultry sold	220.4 lbs.	47.93
Poultry used	94.4 lbs.	19.32
Stock sold		4.75
Inventory increase		2.94
Manure	3.16 ton.	6.33
Miscellaneous		.37
Total money yield		\$245.59
Direct Costs.		
Corn	2,524 lbs.	\$24.84
Wheat	899 lbs.	12.05
Oats	805 lbs.	8.62
Barley	237 lbs.	2.97
Skim-milk	702 lbs.	1.86
Chick feed	94 lbs.	1.59
Screenings	291 lbs.	3.64
Buckwheat	80 lbs.	1.06
Tankage	67 lbs.	1.89
Corn silage	89 lbs.	.27
Oyster shells	18 lbs.	.29
Misc. feeds		4.49
Misc. expense		1.89
Equip'm't decrease		.91
Total direct costs		\$66.37
Returns per farm		\$179.22

The returns from the larger flocks would indicate that poultry can be made to contribute a substantial amount towards the income of a farm. And that it can be made to rank as one of the major enterprises of a farm business is shown by the sales from the five flocks which are exhibited in Table 2. From the largest one of these flocks, \$1,348.38 of poultry and poultry products were produced.

Table 2.—The farm poultry flock is often made a large revenue producer.

Farm Number.	Hens.	Chicks Raised.	Yield. Money	Total Costs. Direct	Returns.
202	280	300	\$ 441.49	\$120.47	\$ 321.02
303	198	235	590.60	142.88	447.72
308	365	450	1,348.38	257.20	1,091.18
322	101	250	575.96	183.01	392.95
505	175	420	1,114.47	243.98	870.49

Of these five flocks two call for special comment. Flock 322 is a high-producing flock and averaged 114 eggs per hen. This in itself is conducive to high returns, but because of this excellency the owner was able to sell breeding stock to the amount of \$169.50. The owner of flock 505 had a special market opportunity in the location of her farm near Detroit on one



Housing is One of the Big Factors in Poultry Overhead.

of the concrete roads, and because of this the eggs and poultry were sold to automobilists at prices above the average. All of the five farms raised a large number of chickens, therefore, had large meat production and all of them fed protein in their poultry ration.

Returns on Other Years.

Unquestionably, under the prices for eggs, poultry and feed for the year ending March 31, 1922, these seventy flocks made a good financial showing. Could they have done so well under the prices of other years? Is poultry a good year-in and year-out farm en-

terprise, or was 1921 an exceptionally favorable year? Fortunately, a comparison with other years is entirely possible, through prices available through the Bureau of Crop Estimates of the United States Department of Agriculture. If the amounts produced as shown in Table 1 are multiplied by the prices of any given year the result will show what the products

of Michigan as reported by the United States Bureau of Agricultural Economics.

Table 5 shows average returns from a farm poultry flock of 100 hens over a period of several years. These returns are based on the quantities shown in Table 1, on average prices for the state of Michigan as reported by the Bureau of Agricultural Economics.

Year.	Returns.
1922	\$130.00
1921	139.68
1920	166.19
1919	161.97
1918	116.95
1917	92.37
1916	91.79
1915	70.00
1914	82.26
1913	91.08
1912	75.61

Poultry as an Investment.

The figures for the seventy farms (Table 1) show what the average poultry flock of 100 hens is returning and are applicable to the farm that already has poultry buildings and equipment, but where new buildings are being planned, farther costs must be taken into consideration. As these costs become permanent once the investment is made, they will be called investment costs. They are depreciation on buildings, interest and taxes. A further deduction is also made for labor. These costs are shown in Table 3.

That poultry gives a relatively high return on a comparatively small investment is shown by the fact that the average of the poultry investments on the seventy farms included in the accounting study was only \$222.06 and that the returns after deducting the investment costs and charging labor at hired man's wages were \$132.11. This gives a return on the whole investment of fifty-nine per cent.

Table 3.—Returns on investment.	
Depreciation on buildings	\$ 3.36
Interest on investment at 6%	13.32
Taxes and insurance at 2%	4.44
Labor, 130 hrs. at 20c per hour	26.00
Returns on investment	\$132.11

Totals over direct costs, (from Table 1) \$179.22

One further point of interest is in how the amount of investment is affected by the size of the flock. This is shown in Table 4. It seems the investment per hen is almost constant, ranging from \$2.16 to \$2.76, with the average at \$2.22.

Geographic Society to study the volcanic region took him back to Kodiak in the following years, and he found a surprising transformation. Grasses were more luxuriant than ever before, put out earlier, and grew much higher. The large, luscious berries for which Kodiak was famous were bigger and more numerous than ever. Even the trees grew faster.

Most of the local observers jumped to the conclusion that the ash was a wonderful fertilizer. But when Dr. Griggs had the ash analyzed he found that it had about the fertilizing power and on the average prices for the state

Table 4 shows the investment in the poultry enterprise, with the farms grouped according to the size of flocks.

		Average Investment In:				
Group.	Farms.	Size of Flocks.	Average Hens Per Farm.	Poultry.	Bldgs.	Eq't.
1	9	50 or less	35	\$ 38.11	\$ 58.33	\$.00
2	52	51-150	88	77.04	109.64	3.71
3	5	151-250	169	209.85	190.00	4.00
4	4	250 and above	298	349.69	337.50	22.50
All	70		99.4	\$118.09	\$100.06	\$3.91
						\$222.06
						\$2.22

of sharp quartz sand; as a fertilizer it was absolutely worthless. Then he gathered the evidence which showed that the remarkable growth of plants at Kodiak beginning a year or so after the ashfall, was solely due to the action of the ash as a mulch. The heavy blanket of ash, it was found, smothered the many little weeds and grasses that were fighting for a place in the sun and were absorbing much plant food from the soil. The strong grasses and the larger plants with virile root systems continued to live and when they began to grow again found themselves for the first time without competition. Living was easier; each survivor had a bigger share of the plant food and grew abnormally.

From the above figures based on actual records kept by seventy Michigan farmers it is evident that the poultry flock is one of the best paying enterprises on the farm, and that because of the small investment necessary it is an easy enterprise to start. Its popularity is, therefore, founded upon substantial economic returns.

If a drawer sticks, try rubbing the edges of the two sides with laundry soap.

Money grows on well-kept berry bushes, even if their fruit goes only into desserts, jellies and jams for the home.

OUR SERVICE DEPARTMENT

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

DOG TAX.

I have a hound which I keep tied up the year round, except when I am hunting. Do I have to pay a tax on him?—J. J.

The statute requires all dogs to be confined except when accompanied by the owner, and dog taxes are nevertheless due.—Rood.

PAYING DOUBLE TAXES.

I have owned pasture land in an adjoining township of another county, and would turn my stock over there after they were assessed here in the spring. Last year, however, the supervisor of the adjoining township saw fit to assess stock also, and claimed no do so. I paid taxes on the stock twice. The same thing happened this spring. What am I to do about it? I am assessed at home on the stock and in adjoining township of another county on the same stock.—C. E. H.

Personal property is taxable in the place where it was on the second Monday of April of the year for which the taxes are assessed, and not elsewhere.—Rood.

TAXES AND TITLES.

Can a man, after paying taxes on another man's property for a certain number of years, claim the deed of the property? If so, how many years must he pay the taxes before he can claim the deed? Can the first owner of the land, who at first did not know the land was his, (he got it through inheritance, and at the time of his mother's death, his address was not known), claim the land after another man had paid the taxes for the number of years required?—C. H.

No title can be acquired by paying taxes on the land though continued for many years.—Rood.

OFFICIAL TEST OF CREAM.

Will you kindly tell me of some way whereby we can get an official test of cream, and are there containers provided for sending same to be tested?—L. G. S.

If you will take the matter up with the Bureau of Dairying, Department of Agriculture, Lansing Michigan, you can find a means, probably, of getting your cream officially tested.

You can send a sample to the dairy division at the experiment station at Lansing, and they will test it for you. Or you can take a sample to any creamery and get it tested.

You should bear in mind, however, that any of these tests only apply to that particular sample; another sample might not test the same. It is almost impossible to get two samples of cream just alike. If you want to check up your test, you should have a second sample taken at the same time the first one is taken and from the same batch of cream.

There are containers made expressly for sending such samples but this is not necessary. You can take a sample in a bottle, pack it in a tin can or box and send it anywhere.

SUDAN GRASS FOR PASTURE.

Will you please tell me whether Sudan grass is of any value for pasture or not? Would eight acres of black clay loam furnish enough pasture for nine head of cattle for the summer? If so, how much seed should be sown to the acre and when should it be sowed?—H. P. U.

Yes, Sudan grass is proving to be a great success as a pasture grass for a temporary pasture. It is especially adapted to a country with little rainfall, but it does well in Michigan.

As a rule, eight acres will not be sufficient to carry nine head of cattle.

With most pastures it will take nearer two acres per head.

If you get a good stand of Sudan grass and the season is favorable, it will come as near carrying that many cattle as anything you could get. If your pasture gets short, you can feed a grain ration and help it out.

BUYING BOOKS.

I signed a book contract last summer. Upon arrival of books, I discovered the bindings were very poor, and the agent had used my name as a reference, saying I was "sponsoring" the club, which was an untruth. Have only paid the \$2.50. I told the collector I

of the township money. Then they quit that road and used the rest of the township money on other roads. Have we got any redress? Will say that a part of the \$600 donated was to be in work and that is the part that has been paid in and used on this road.—C. H. F.

Concerning the failure of the township to expend money voted for the improvement of a highway for which donations by the property owners have been made, you are advised that the statute specifically provides for the expenditure of highway improvement money under the direction of the township board and highway commissioner and while the township might

Very seldom plants are sprayed in the hot-bed; however, it might be advisable. Dusting with copper dust, composed of fifteen per cent copper sulphate and eighty-five per cent lime, would accomplish the same results as a spray; in fact, I believe it would be slightly more efficient and is cheaper. The dust should be applied at intervals as in the case of the liquid spray.—E. P. Lewis.

DANGER IN ELECTRICAL ENGINEERING.

Some people state that electrical engineering is very dangerous and advise me not to take it up. I am very interested in the course and would like to know if it is the truth or not. I try to make my parents believe that it is not, but the people seem to knock down my arguments, which makes it very hard for me.—E. L. L.

I note that you are encountering some opposition in your desire to take up electrical engineering as a profession, and that one of the chief arguments against such a course is that electrical engineering is very dangerous.

My observation and some study of the subject of the question of professional or vocational risks convinces me that electrical engineering is no more dangerous than farming or any other occupation, and probably much less dangerous than the driving of automobiles is getting to be.

It would be very unfortunate if you are sidetracked from electrical engineering by such an argument as that mentioned.—G. W. Blissell.

MUST VOTE FOR SCHOOL.

This district is cut up in five and twenty-acre fruit farms. People are buying lots and building fine homes, mostly rich people. The newcomers want a new school house. There are no more children in the school than there was twenty-five years ago, and the school still has room for more scholars. While the school is not modern, it can be made so. Some of the people want a modern school with a gymnasium so they can go nights and play games. Will the voters (farmers) have anything to say if the old school is to be torn down, or does the school board rule?—J. S.

The school board has no authority to buy or build school houses without vote at a school meeting.—Rood.

LIABILITY OF MARRIED WOMEN.

What would be the proper signature on a note, given by a man, where the property is owned jointly by man and wife? In case said man dies, does the wife pay the note if her name is not on note? If they both sign note, does it make any difference whose name comes first?—H. L.

It makes no difference which name comes first. The wife is not liable on her husband's note, whether signed by her or not; but only on her contracts with reference to her separate property.—Rood.

SHEEP PASTURE.

What can one do with sheep pastures to keep them free from eggs or larvae of stomach worms?—G. H. K.

Nothing can be done so far as now known to destroy these larvae. They exist in the pasture. But if sheep are not pastured there continually, the larvae become extinct or are at least greatly reduced in number.

It is best to have more than one pasture for sheep, alternating each year. In this way troubles from these parasites are reduced to a minimum.

Says Sam: Talk is all right but first of all, take hold!

Cleaning Rimes with Screening

BY ones and twos they buzz and sting, the pesky flies of early spring, and when you slay them with a smack, you kill a trillion at a crack. Wise old statisticians say a female fly in summer may breed at a rate which multiplies to most two hundred trillion flies!

To swat spring flies is not enough. There are other ways to treat them rough. Clean up the places where they lay and hatch their million eggs a day. Fly eggs and maggots, vile and hale, throng the uncovered garbage pail, and eggs and maggots, hale and vile, inhabit the manure pile. Cover the pail, and treat manure as follows if you would insure your stock, your home, your health, your ease against discomfort and disease.

On half a pound of hellebore, (our druggist ought to have it), pour of plain cold water gallons ten; let stand about a day and then, using a simple sprinkling pot, soak the disease-producing spot. Ten gallons thus will sterilize ten cubic feet of pile from flies.

Fly-paper helps, and traps do, too, but flies will get the best of you, no matter how you've trapped and cleaned, unless the homestead's tightly screened. Screen every window, every door; remember what a screen is for, and see that frames completely fill the space between the sash and sill. Torn screening, too, or screens with holes, flies love with all their sneaking souls.

The cost you'll save in minor ills; in temper lost, and doctors' bills.

could not go on with it. Company is now pressing for collection. I have no income of my own. Can they make my husband pay?—E. B.

The husband is not liable on the contract. It does not appear to be made in his name nor is it for a necessity.—Rood.

AN AUTO DEAL.

We bought a car from a dealer, turning in our car as first payment. We found that his car had been misrepresented to us. We made two payments on the car, and he insists that we pay up the balance on the contract. We offered to let him take back his car, and keep payments we have made, and also our car. He won't do this but threatens to garnishee or sue. He resold our car and got good cash money out of it. Can he garnishee or sue when we offer him all this? What is the best thing for us to do?—H. B.

If the facts were misrepresented and no payments have been made since discovering the truth, the buyer has the right to rescind the contract and recover the car sold, or its value if it has been disposed of. Any person claiming a right of action may institute proceedings and cause inconvenience before it can be determined whether he has a right to recover.—Rood.

ROAD DONATIONS.

Three years ago at our township election a motion was made and carried. The motion was, if the farmers living in a certain neighborhood would raise (donate) \$600, the township would raise \$1,000 to build one mile of a certain road in that neighborhood. They started to build this road the same fall and used up a good share of the work that was donated and a little

be, and would be, morally obligated to expend the \$1,000 voted for the improvement of a certain road as being the expressed will of the taxpayer, yet legally they are not obligated to expend the money so raised on any particular road and you would have no redress for the failure of a township board to improve the road in question. H. H. Partlow.

POOR SEED.

I have been unable to find out what causes seeders in my celery. Some of my neighbors claim it is due to the soil (muck) being too wet. Others say it is because seed sown in hot-beds get too cold and at times freezes. Last season two neighbors and myself had the same seed and I was the only one troubled with seeders.

For the last two years celery in our neighborhood has had blight, the first signs of which was noticed about the first of July. Would like to know if spraying for blight would be advisable?—J. H. G.

Poor seed is usually the cause of the seed stalks in celery. However, any check in the growth from the time the seed is planted until maturity would tend to have the same effect. This might be caused by fertility in the field or to temperature and moisture conditions while in the hot-bed.

Celery should make a rapid, continuous growth throughout the season in order to produce a product of high quality. Perhaps an addition of fertilizer analyzing 2-12-16, in the case of muck, would do away with your trouble.

Celery blight may be controlled by Bordeaux mixture of 4-4-50 strength. This should be applied throughout the growing season at ten-day intervals.



CORN-HOG RATIO DETERMINES PROFIT.

THE price of corn has a great bearing on the profits made out of hogs. The average corn-hog ratio from decade to decade has been quite consistent. It is about 11.5 bushels of corn to every 100 pounds of pork on foot. The basis for this ratio is the Chicago prices for both corn and pork. In 1922 the ratio was very high, averaging 14.4 bushels; but in recent months it has declined rapidly, standing now at about 9.5.

The present situation is one of record hog production, large exports, low prices and a low corn-hog ratio. Such a situation usually leads to declining receipts and rising prices. But, judging from reports, this is not likely to occur in 1923, but the late spring and rising corn prices may reduce the number and weight of fall shipments to at least check the general down swing that has been apparent in the hog prices during the past year.

MANURE PIT FOR HORSE BARN.

MANY farmers are building shallow manure pits along the sides of their horse barns and directly under

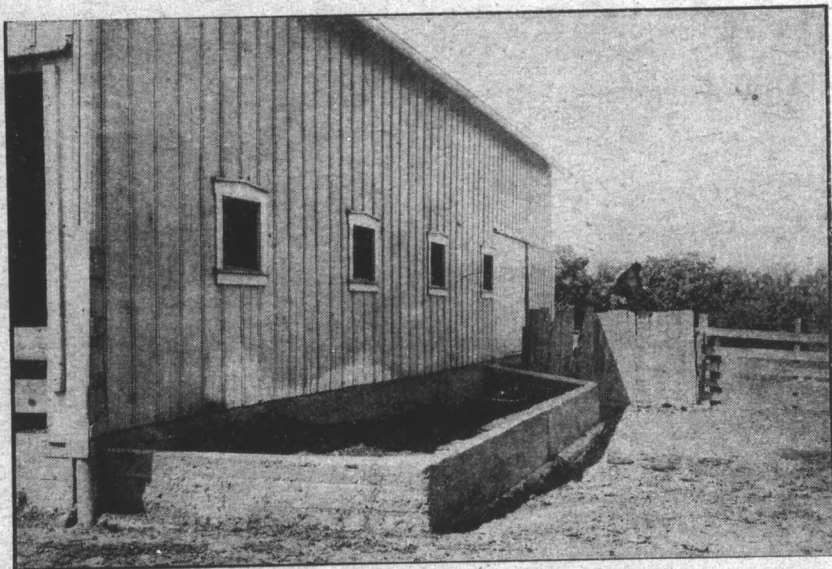
ters and suitable food, and with these in small as well as large areas, there seems to be no good reason why they should not thrive in captivity.

Prices of skins vary greatly, but the skins from northern Wisconsin have sold as high as \$50 each, it is stated.

Only the best stock should be used to start with in beaver-farming, and this should be improved by selective breeding to get the best market prices. Mr. Bailey believes that \$50 skins can be produced in captivity, if choice black skins are produced. The longest, heaviest furs are produced in cold climates. The best beaver zones are in the northern tier of states of the United States and Canada.

The range of the aspen and poplar tree coincides with the range of the best beaver conditions. The aspen provides the best beaver food. Burnt-over lands where aspen and pincherries have covered the region can support a large beaver population under very favorable conditions.

Mr. Bailey advises starting with a small fur farm where close and detailed supervision can be given. Expansion can follow later. A small pond, lake or creek makes a good site for a beaver farm, but an artificial basin can be used, but there must be clean



This Manure Pit Saves Fertility and Labor and Keeps Yards Clean.

the windows through which the manure is forked. Such pits come directly under the barn eaves but this matter is taken care of by supplying a trough for carrying the rain water to a point well beyond the location of the manure.

There are many advantages in shallow receptacles of this sort. The waste is prevented from leaching and fertility thereby is saved. The fact that the pit is shallow makes it possible to clean it out with far less effort than is required in the case of the usual manure pit of greater depth. Having a concrete bottom, a good surface for loading is secured. This always affords considerable saving of effort over being obliged to work on a dirt bottom.—O. Crooker.

BEAVER FARMING NEXT.

THE beaver is at home in the Upper Peninsula. That beavers are easily domesticated has been amply demonstrated, says Vernon Bailey, in a recent government bulletin; but all points have not as yet been determined relative to raising them in captivity as a business production.

It is known that they breed in captivity and young beaver are easily tamed. Young beaver are thus best to start with, but older beaver can be similarly handled. They require plenty of clean water, good sleeping quar-

water and food. Careful attention must be given to fencing.

ARE SUPPORTING THE WOOL POOLS.

WESTERN sheep men appear to be supporting the wool pools in their respective states. In Montana, 955,322 fleeces, which are equivalent to 8,000,000 pounds of wool, have been pledged to the 1923 pool. In Wyoming, 480,000 fleeces, equivalent to nearly 4,000,000 pounds, have been pledged. The amount signed in South Dakota is 1,250,000 pounds.

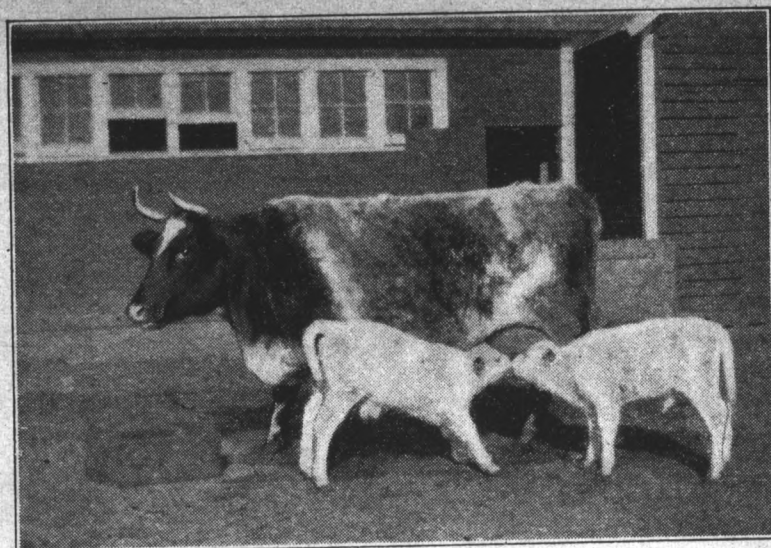
BETTER BEEF IN DEMAND.

THE demand for better beef perhaps explains why western range steers have sold so poorly in the past year or two.

Based on past performance, cattle prices should, in from five to seven years have a high value compared with other products.

While the supplies of beef at the present time are sufficient to meet the demand, the probabilities are that we are headed toward a shortage rather than an over-production.

As long as the public demands a high-class beef, the good feeder will have a place in supplying this demand.



FROM A KODAK NEGATIVE

Kodak on the Farm

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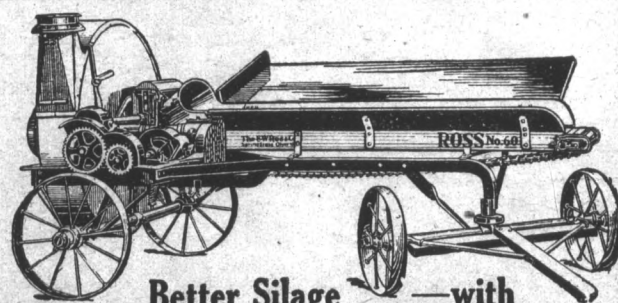
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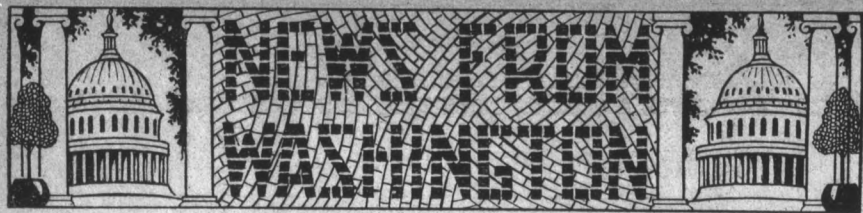
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COMMODITY PRICES INCREASE.

DURING the year ending April 15, there was an increase of three per cent in all food commodities, and for the ten-year period the increase amounted to forty-six per cent, according to the department of labor.

At the annual convention of the American Wholesale Grocers' Association, held at Washington, D. C., it was predicted that prices would continue to advance for a time, but business depression might be expected in 1924.

TARIFF HURTS CANADIAN FARMERS.

CANADIAN cattle producers are co-operating with the Illinois Agricultural Association and the Pennsylvania Farm Bureau Federation in appealing to the United States Tariff Commission for an investigation of stocker and feeder tariff schedules. They declare that the present duty is very detrimental to their business, and assert that it is of no benefit to the American cattle industry. It is estimated by the Western Stock Growers' Association of Alberta, that the present United States tariff will cost the Canadian cattle producers \$15,000,000 a year by lowering the price of cattle in Canada and on those shipped to this country.

Dr. James W. Robertson, former commissioner of agriculture of Canada, who is now in Washington, says that the Canadian stockers and feeders, which for the most part are the cattle shipped to the United States, are raw material that would only benefit this country. With the tariff removed there would not be enough Canadian cattle to injure our markets. According to Dr. Robertson, the number Canada would have for export would not be more than two per cent of our total supply, and these cattle would make a home market for our surplus corn in the corn states.

TO INVESTIGATE NITRATE SUPPLY.

A NEW division has been started in the Department of Commerce to investigate the nitrate supply of the United States, the present and prospective demand for nitrates and the sources of supply, with the purpose in view of obtaining figures that will form an accurate basis in estimating the needs for air nitrate development in this country.

R. F. Bower, of the Washington office of the American Farm Bureau Federation, has charge of the investigation so far as it relates to nitrates used in agriculture.

RUSSIA COMING BACK AGRICULTURALLY.

THE recuperation of agriculture in Russia, and changes in the soviet government policies, lead to the hope that the nation will be able to feed itself after the 1923 harvest, but re-

lief will still be necessary for the children because of the deterioration of live stock, declared Mr. Hoover, who added that "the peace of the world can be established on no other foundation than good will among peoples."

THE SUGAR SITUATION.

SIMULTANEOUSLY with a movement among the women's associations and the consumers' organizations of New York City, asking President Harding to lower or remove the tariff on sugar, the United States Sugar Association representing the sugar refiners has begun a propaganda cam-

paign to show that the tariff is responsible for the rise in the price of sugar.

The philanthropic spirit displayed boldly by this organization is appalling. "We have no selfish motive in mind and with all the power at our command we are striving unselfishly to protect the helpless American consumer; we cannot believe this appeal will go unheeded," they say, in an elaborately printed monograph in which they attempt to argue that 110,000,000 people should not be taxed nearly \$200,000,000 "in order that some thousand growers of beets should make more than a comfortable living."

They fail to explain, however, why an increase in the tariff of fifteen cents per one hundred pounds, should cause a boost of \$4 or \$5 per hundred pounds in the price of sugar. And they do not throw any light on what would become of the American consumer if the domestic sugar industry were destroyed by the removal of the tariff, and the said consumer left to the mercy of Cuban sugar interests.



The Crow and the Farmer

A Bird that is Enemy and Friend Both

By G. W. Earle

THE crow is a bird that requires no introduction on the average farm. Color, size and habits give it a distinctiveness for which no other bird can be mistaken. It is distributed over all the semi-wooded areas of the North American continent, being a permanent resident of the eastern sections and a summer visitor only in the prairie sections.

There is something fascinating about the crow which makes it difficult to consider it from the material economic standpoint, which, unfortunately for the subject, is required in these times.

To begin with, we can see that the bird possesses unusual abilities among the feathered tribe. Note its many calls, undoubtedly signifying distinct things. See how it learns to recognize its friends from foes. Man it distrusts, and rightly so, yet when they are not molested, these same crows become comparatively tame. There is a pair about my home which have nested close at hand for three years and show no indication of becoming robbers.

There is also a wisdom in these birds' general habits which gives them a distinction possessed by few other birds. They are as mischievous as a jackdaw when kept in captivity, and in nature have an inquisitiveness which causes them to be always on the look-out for what others are doing. Man is one whom they seem never weary of watching and it is seldom that a man remains long in one place without a crow going to see what he has been doing when he leaves.

Perhaps one of the most interesting traits of crows is their answer to the call of battle; whether this is in substance universal military service I do not pretend to say, but the fact remains that the call of a single pair

will soon draw together all the male crows in the neighborhood, as well as a large percentage of the females, which only return to their own nests when the danger they were called upon to combat is past.

It would far outrun the limits of this article to state one-fourth of the interesting habits of these birds. I have mentioned those above in the hope that others may become interested. Should they do so they would learn many things worth while, among others that insects are as much titbits to the crow as eggs are, and that they are procurable throughout the entire summer, whereas eggs are limited, in nature, to a couple of months.

It is not necessary to refer to more than the general breeding habits of crows. We all know that they have but one brood annually and that the nest is built in a tree. We also know that the five or six young are nearly always reared to maturity. In their family life the crows are exemplary in all their proceedings. Both birds share in building the nest and during the actual brooding, when the female seldom leaves the nest, the male undertakes the double duty of feeding and defending her. Thus in due course the young reach maturity and in August gather in large flocks. In this condition they remain for the remainder of the season, generally roosting together at night and breaking up into several parties during the day, when they sometimes fly long distances in search of food. At the approach of winter many birds move southward. In the west all go, while in the east a certain number remain, according to the severity of the winter. When large flocks remain in the northeast, old-time weather prophets assure us early that this is a sure sign of an open winter, which usually proves to be true.

There is probably no bird that has been more generally condemned by the public than the crow, and fully ninety out of every one hundred people would subscribe to such opinion, fully believing themselves to be right. This is largely due to the fact that the crow's misdeeds are mostly of a prominent nature and easily observed, while its benefits pass unnoticed. Thus a crow carrying off a young bird is very apt to attract attention; there will be the cries of the parents or perhaps the nestlings are known, whereas the same crow might pick up thousands of noxious insects without any one being any the wiser; indeed, its presence would probably lead to its being accused of some fresh atrocity.

The Injury and Value of Crows.

In the eastern sections and throughout the corn belt, the complaint against the crows is that they destroy much sprouting corn for which they soon acquire a taste, thus not only causing severe loss, but necessitating the treatment of the seed with a tar preparation as a deterrent. With reference to the destruction of other cereals, this is chiefly confined to grain in the shock when large flocks of crows make a habit of visiting certain fields daily. The injury, however, is not usually as severe as might be expected, owing to the fact that the birds really pick up a large proportion of this grain from the ground and use the shocks more as an eminence from which to view the surrounding country for possible enemies. Another reason for resting upon shocks and haystacks is that grasshoppers collect here.

It is common knowledge to every farmer that crows are constantly in attendance behind the plow, cultivator or harrow, not as has been claimed, to pick up the seeds, but to feed upon the various larvae, such as cutworms, wireworms and white grubs that are exposed, especially the last two pests. White grubs have been reduced as much as fifty per cent in infested fields by crows, although in ordinary practice it is impossible to remove them. Cutworms are also located among the growing crops and eaten in large numbers. Indeed, to observe a flock of crows constantly returning to the same area in a field is strong evidence that there are cutworms or some other noxious insect present. Apart from their value as destroyers of noxious insects, crows also kill the mice and young rabbits. Add to these their habit of devouring offensive carrion and we have reviewed the chief points of the birds' usefulness.

We have seen by the evidence provided above that the crow certainly does some harm and that this is especially so in the corn field. It also destroys a certain number of eggs and young of both domestic and wild birds. Grain, too, is eaten in the autumn and while this is not always taken from the sheaves, a portion of it undoubtedly is, and there are occasions when crows do considerable harm in this way, and when they occur in large numbers some reduction in numbers is desirable. On the other hand, the bird is undoubtedly of value as a destroyer of noxious insects and, in this respect, seems to fully compensate for the harm it does at other times. When we add to these useful activities the killing of mice and removing carrion, there appears to be a balance of usefulness in the crow's favor.

Why imprison rosy-cheeked boys and girls in unsanitary school buildings?



FEWER FARMERS ARE PRODUCING MORE.

DUE to the developments of science a smaller rural population than ten years ago is producing more than enough foodstuff to supply the country. It is reported that within the past ten years the population on the farms has decreased 1,700,000, but those remaining on the farm have produced more because of their scientific training and by the use of modern machinery.

MORE PRODUCTIVE IN VIRGIN SOIL.

IN Wexford county, the county farm agent, W. F. Johnston, has been getting some interesting figures. He compiled the statistics from the records of 128 farms in that county, with results in potato growing as follows: On alfalfa sod, an average of 197 bushels were produced; sweet clover sod produced 135 bushels, while clover sod gave an average of 120 bushels. Virgin soil gave an average production of only 105.5 bushels, while the production on June grass was as low as 93.3 bushels. The average yield per acre for all farmers in Wexford county was 110 bushels.

Mr. Johnston says that the average price received for potatoes by Michigan growers during the past half century has been fifty-two cents per bushel. At this average price, the man who grew potatoes on alfalfa sod would receive \$102.44 for his crop, while the man raising them on June grass sod would receive only \$44.52 per acre.

OUSTING MR. BARBERRY.

MICHIGAN grain growers who have been giving their active support to the barberry eradication movement for the past five years, will be interested to know that state and federal leaders in the campaign, at their recent annual meeting at Urbana, Ill., expressed absolute confidence in their ability to conquer black stem rust in the north central states by destroying the host plant of the disease.

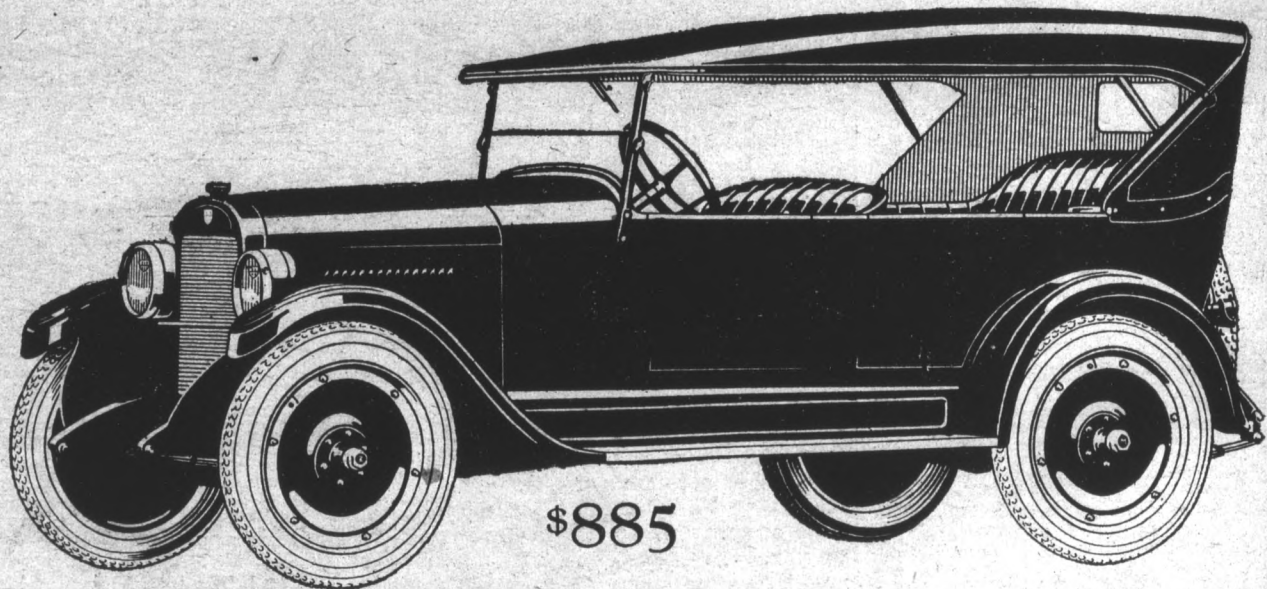
They have found approximately six million bushes in the spring wheat territory. Of this number more than five million have been removed. There are still thousands of harmful barberries in the thirteen states in which eradication is in progress. Michigan has its share of them, probably more than any other state, though Wisconsin holds the record to date.

To many persons barberry eradication has seemed like an endless task. At times leaders in the campaign have agreed with this view. Now, however, with the north central territory half covered in the farm to farm survey, all doubts of the eventual success of the undertaking have vanished. Field agents of the United States Department of Agriculture feel sure that they can get out all the barberries and have a vast amount of evidence to indicate that black stem rust will then disappear as a limiting factor in the production of cereal crops.

Every state in the area has a record of cases which show that the thorough eradication of barberries in certain localities has been followed by a reduction of black stem rust losses.

Failure of many persons to get out all of the roots is proving a serious problem. It is being met by the use of chemicals as agents of destruction. Rock salt is one of the most popular materials. Ten pounds, poured on the base of the bush will kill it, root and branch, thus doing away with the necessity of paying further attention to the location.

Strike a blow for better farming.
Swat the scrub!



\$885

Soaring Higher and Higher In Public Regard

The one plain fact that the good Maxwell rarely needs expert mechanical attention tells the farmer—experienced as he is with machinery—that it is exceptionally good.

Its maintenance cost, as well as its running cost, is amazingly low.

Nothing but the finest construction, of the finest materials—heretofore reserved to owners of the highest priced cars and now made possible only by Maxwell's low-cost, high-grade manufacture—can produce such results.

The uncommon beauty of the good Maxwell started it on the way toward its success.

But it is on the sheer goodness which it is demonstrating by unprecedented reliability and economy, and by its exceptionally easy riding, that the car is soaring higher and higher in public regard, to final domination of its market.

Cord tires, non-skid front and rear; disc steel wheels, demountable at rim and at hub; drum type lamps; Alemite lubrication; motor-driven electric horn; unusually long springs; new type water-tight windshield. Prices F. O. B. Detroit, revenue tax to be added: Touring Car, \$885; Roadster, \$885; Club Coupe, \$985; Four-Passenger Coupe, \$1235; Sedan, \$1335

MAXWELL MOTOR CORPORATION, DETROIT, MICHIGAN
MAXWELL MOTOR COMPANY OF CANADA, LIMITED, WINDSOR, ONTARIO

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"Most of my neighbors who have trouble with their horses don't use Gombault's Caustic Balsam. So I figure it's Gombault's, and not luck, that keeps my work stock in tip-top condition."

"I found a bottle of Gombault's in the barn when I bought the place thirty years ago, and I've never been without it since. I haven't fired a horse in all that time. Gombault's does the work a lot better, leaves no scars or discolored hair."

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 Spavin Thorough- Fistula
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A million successful treatment each year. Booklet describing horse ailments sent upon request.

\$1.50 per bottle at druggists or direct upon receipt of price.

GOOD FOR HUMANS TOO

An excellent remedy for sprains, bruises, cuts, burns, sore throat, muscular and inflammatory rheumatism, sciatica and lumbago. The Lawrence-Williams Company, Cleveland, Ohio. Sole Distributors for the United States and Canada

GOMBAULT'S Caustic BALSAM

I Was a Pencil-Pusher at \$13⁵⁰ a Week

Other fellows my age were earning twice as much, but I could never figure out the reason. It was Jim, the new man over at the Town Garage, who told me the secret. "Become an expert in some one thing," said Jim, "and you'll never have to worry about a high-paying job."

Before I went to bed that night, I had written to the Michigan State Automobile school for their Free Book which told me how I could become an expert automobile man by studying during my spare time at home. Inside of a week I had enrolled for the complete course. And almost before I realized it, I had finished it and had jumped from a \$13.50 pencil-pushing job into a real job at \$42.50 a week to start.

The M. S. A. S. will gladly send you FREE an Outline of their Home Study Course showing how you too can become an auto expert and earn big money—also Free 100-page Catalog of their mammoth Detroit school to which students come from all parts of the country. Write today for Outline and Catalog.

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 TILE and BARNs

Hoosier Hollow Glazed Building Tile are the best and most economical material for permanent farm buildings, no repairs, no painting, no upkeep. Specially adapted for barns, poultry houses, hog barns, garages, etc. Lower prices now. HOOSIER TILE SILOS are BEST VALUE ON THE MARKET. Last for generations, proof against wind, fire, frost, moisture, vermin, etc. New mat face Hoosier Block extensively used and admired for country and city homes. Handsome circular, illustrated in natural colors. SENT FREE.

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PERMANENT



FEED TOMATOES FOR LARGE FRUITS.

PLANT fewer vines and feed them during the summer and get larger fruits and have them set better, is the advice of one who has applied some of the principles of tomato growing learned when growing them in Florida. The first feeding he did last summer was with nitrate of soda when the plants were set out. The fertilizer was dusted around the plants in a narrow circle, but did not touch the stems by an inch all around. A couple of weeks later another light dusting was given in a larger circle. This fertilizer is cheap, and five pounds will feed a family garden tomato patch for several years.

When the buds begin to show, a complete fertilizer, ready mixed, can be used to better advantage, or bone meal may be substituted for the nitrate of soda and applied in the same way but in wider strips. Once a month is often enough to use it. This will make the vines set better. The nitrate of soda will make vine growth, and is so quickly available for the

plants that it starts them off very strong, and then the other fertilizers will finish the fruit. It takes so little to do the work that the cost is insignificant compared with the better fruit and the larger crop, and tends to make it earlier as well. Staking and pruning outside branches will help along the same lines.—Agnes Hilco.

PLUMS WON'T BEAR.

We have two plum trees, do not know the name of the variety, which bear large red plums. They are full of blossoms, but plums most all drop off before ripe. We spray them the same as we do apples and at the same time. Our neighbors have the same kind of trees and their trees are loaded. Can you tell us what the trouble is?—S. C. S.

Undoubtedly the trouble with your plums is that you do not spray them at the right time. If you spray the plums at what is the proper time for spraying apples, you put your applications on too late.

You do not state whether the dropping of the plums is due to rot or some other cause. Aside from rot, one

of the principal causes of dropping is the stinging by curculio.

Regardless of what the cause may be, it is advisable for you to spray your plums with lime-sulphur at 1-50, to which is added one and one-half pounds of powdered arsenate of lead, just before blossoming time. Then after the blossoms have dropped and the shucks are disappearing spray again with the above mixture. These applications should be repeated about every ten days or two weeks until within about one month of the ripening time.

Some growers find that Bordeaux mixture gives more satisfactory results than lime-sulphur. However, one of the chief objections to Bordeaux is that it stains the fruit more than lime-sulphur does and cannot be used very late in the season.

It may possibly be that your plums are of a variety which is quite susceptible to rot. If that is the case, very thorough spraying is necessary in some seasons to keep the rot in check.

There may be another cause for your plums dropping, and that is that your trees are making a very vigorous growth, which tends to produce weak blossoms and also makes the plums susceptible to rot and other troubles. If that is the case, pruning and the withholding of fertilizer from the trees will help.

However, we believe that the trouble is more likely due to spraying at the improper time, or perhaps in not spraying thoroughly enough.

GROWERS WIN PICKLE CASE.

THOMAS FREEMAN, of Allegan county, won a suit against the Allegan Produce Company, with damages of slightly over \$200.

Mr. Freeman maintained that in 1921 there was a drouth which was followed by copious rains. This produced a heavy crop of pickles. The company then notified the pickle grower that it could not take care of the unexpected crop on account of the lack of storage space. Suits for damages then followed. The Freeman case is the first one to get a decision.

STORM DAMAGE TO FRUIT.

REPORTS from various parts of the state indicate that there is quite a diversity of opinion regarding the damage done by the May snow storm. It is generally conceded that the early blossoms of strawberries have been hurt. Raspberry bushes have been injured to some extent, and perhaps there has been some injury to cherry trees. But the peach, pear and apple trees have come through in fairly good shape. The grape growers also anticipate no evil effects from the storm. The optimistic fruit men still believe that there will be a good crop of most kinds of fruit.

GRASSHOPPER BAIT.

A poisoned mash is the best known means of fighting grasshoppers. Mix twenty-five pounds of bran (or that amount of bran and sawdust one-half each) with one pound of Paris green or white arsenic; grind three oranges or lemons and add two quarts of syrup and three gallons of water. Thoroughly mix with the poisoned bran. Scatter the mixture thinly where the hoppers are feeding. Apply in evening or early morning. This amount should cover five acres of ground.

If the currant work becomes serious when the fruit is nearly ripe, fresh hellebore should be used. As a spray, apply at the rate of four ounces in two or three gallons of water; or the plants may be dusted with a mixture of one pound of the material in five pounds of flour or air-slaked lime.

A Page from the Past

HERE is a reprint of a page from the Michigan Farmer printed in 1848. The original was sent in by Bernard F. Dalzell, of Muir. The market quotations and other news undoubtedly will be of interest to our present readers. In view of the fact that this is our eightieth anniversary, the editors would be pleased to receive other copies of the early issues of the Michigan Farmer, some of which will be reproduced in our pages.

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MICHIGAN FARMER.

July 15,

We occupy a considerable portion of our first page with an advertisement of the treatise on domestic animals. If by this means we can get this book into the hands of our farmers generally we shall entitle ourselves to their gratitude, rather than to their maledictions, for devoting so much space, for a number or two, to its interests. Indeed so desirous are we to get it into general use among our farmers, that we have consented to have it deposited in our office for sale, and we shall soon expect a supply. It is the treatise we noticed in our last.

Good Example.

BROOKLYN, June 28, 1848.

MR. ISHAM.—Enclosed I send you two dollars.—One dollar for the current volume,—one dollar in advance for the next volume of the Michigan Farmer.

I am much pleased with the management of our paper, and will try to write something for its columns (though the communication be a humble one), as soon as time permits.

Yours with respect,

J. C. WATKINS.

TERMS.—The MICHIGAN FARMER is published at Detroit, twice a month, by WARREN ISHAM, at one dollar a year in advance—after three months \$1.25—after six months \$1.50—after nine months \$1.75. No subscription taken for less than one year, nor discontinued till all arrears are paid. To clubs, five copies for four dollars. Office, on King's corner, third story.

Market Intelligence.

DETROIT PRICE CURRENT.

Flour, bbl.	\$4 50	Salt,	\$1 25	a \$1 50
Corn, bus.	a	40 Butter,	9 a	12 1/2
Oats,	a	35 Eggs, doz.		11
Rye,	a	42 Hides, lb.	3 a	6 1/2
Barley,	56 a	Wood, cord,	2 25 a	2 50
Hogs, 100 lbs.	3 00	Wheat, bus.		90
Apples, bush	a	100 Hams, lb.	6 a	6 1/2
Potatoes,	62 1/2	Onions, bu.	41 a	50
Hay, ton,	8 00	a 10 Cranberries,	a	1 25
Wool, lb.	14 a	28 Buckwheat 100 lbs.	1	50
Pig iron, ton,	35 00	a 40 Indian meal,	"	1 00
Coal, Lehigh,	11 00	a 13 Beef,	do	3 50
do Ohio,	4 00	a 5 00 Lard, lb. retail,		7
Peas, bu.		a 75 Honey,		10
Beans,	75 a	80 Apples, dried,		1 00
Beef, bbl.	5 00	a 60 Peaches, do	a	2 00
Pork,	8 00	a 10 Clover seed, bu.		4 50
White fish,	6 00	a 7 00 Herd's grass do		1 00
Trout,	5 50	a 6 50 Flex,	do	75
Cod fish, lb.	5 a	53 Lime,	"	bbl 75
Cheese,	6 a			8

Improved Railroad Portable Horse Powers, and Over-shot Threshing Machines and Separators.—Having sold upwards of seventy sets of the above celebrated machines the past season, and to many large farmers in this state, Vermont, Massachusetts, Michigan, Ohio, Illinois, Wisconsin, Canada, and with entire satisfaction in every case, the subscriber would call the particular attention of farmers and mechanics desiring such machines; before purchasing—as he is prepared to offer a better finished article, with some slight improvements, at a less price, than before—for full particulars, description, &c., see catalogue, furnished gratis at the warehouse, Number 10 and 12, Green street, Albany, or by mail to those desiring them.

Albany March 16th, 1848.

HORACE L. EMMY.

Detroit Wool Depot.

In Atwater Street, back of the Michigan Exchange, formerly the storehouse of Gillet and Desnoyers.

THE undersigned will open a depot at the above mentioned place, and be prepared to receive from farmers their wool immediately after shearing. His plan will be similar to that of the Eastern depots, which have proved so satisfactory to both wool-growers and manufacturers; that is, if lots of wool are of an even quality, and if the owner wishes, each man's clip will be kept and sold separately. If not even in quality, they will be thrown into sorts according to quality and condition. As soon as a sufficient quantity is collected, Eastern manufacturers will be invited to examine and purchase. No difficulty is anticipated in effecting prompt cash sales, at good rates, as the orders on wool depots from manufacturers, have hitherto generally outrun the supply. Wool may be delivered at the depot from wagons, or if sent by Railroad, will be taken by me from the carhouse, without expense or care to the owner. It will be sufficient for him to put his wool aboard the cars, taking a receipt for the same, mark the bales with his name, and consign them to the "Detroit Wool Depot," and all will be safe. Insurance will be effected on all lots as soon as arrived. All charges, including insurance, cartage, sorting, storage, shipping and for effecting sale, will be included in a commission of one and a half cents on the pound.

EARDLEY IVES.

Detroit March 27th, 1848.

REFERENCES.—E. P. Hastings, C. C. Trowbridge, B. F. H. Witherell, Z. Pitcher, M. D. M. Palmer, Shubael Conant.

PETERS' BUFFALO WOOL DEPOT.

SECOND YEAR.

I have established a Wool Depot upon the following plan: First, The Wool is thrown into 10 sorts; Merino wool being No. 1, the grades numbering down from 1 to 5; the coarsest common wool being No. 5. Saxony wool is thrown into extra, and prime 1 and prime 2.—Combining and De Laines make 2 sorts more. Second, I charge for receiving, sorting, storing, and selling, one cent per pound; this includes all charges at Depot, except insurance. Third, Sales are made for cash, except when otherwise directed by owner.

All wool consigned to me should be marked with the owner's name.

Warehouse corner Washington and Exchange streets.

Buffalo, Jan. 1, 1848. T. C. PETERS.

DETROIT SEED STORE AND AGRICULTURAL WAREHOUSE.—In compliance with the expressed wish of a great number of the intelligent and enterprising farmers of Michigan, the subscribers have established a seed store, and agricultural warehouse at Detroit, at which will be kept constantly on hand, the choicest varieties of garden, field and flower seeds, obtained from such sources, that they feel no hesitation in recommending them to be of the very best quality. Also, Agricultural and Horticultural implements and labor-saving machines, such as are usually kept at the agricultural warehouses at the East; among which are Pratt's Patent corn-planter and seed drill, Pennock's patent drill (for drilling in wheat and other small grain), Pitt's thrashing machine, improved harrow, improved cultivator, a great variety of plows, corn shellers, straw cutters and washing machines of the most approved kinds, together with Rich's Beehive, Montgolfier's Hydraulic Ram, Grant's Fanning Mill, Camwheel Churn, &c. At Nos. 93 and 95 Woodward Avenue, nearly opposite the National Hotel.

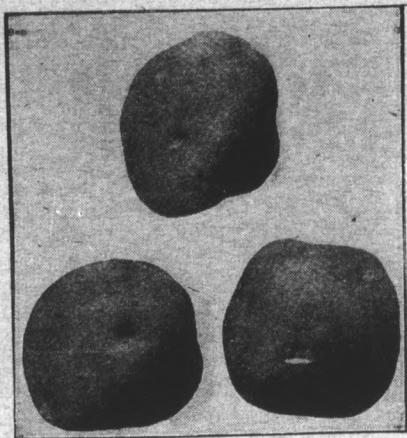
Detroit, June 1st, 1848.

F. F. PARKER & BROTHER.

FOR BOYS' AND GIRLS' CLUB WORK.

PLANS were completed this week for the distribution of a carload of fancy certified seed-potatoes, grown in Cheboygan, Otsego and Presque Isle counties, among the Boys' and Girls' Clubs of ten of our southern counties. Mr. R. A. Turner, Michigan State Club Leader, is in charge of this project which has for its object the thorough demonstration of the superiority of the northern-grown certified seed-potato over the home-grown seed in southern Michigan.

It is only very recently that the value of northern-grown seed, both in increased yields and in better quality, was acknowledged in the potato-producing sections in southern Michigan. Records were kept last year on the



Well-shaped Seed Potatoes.

64,168 bushels of certified seed which was used by 1,585 Michigan farmers and it was found that the average yield was increased by forty-one bushels over that of home-grown seed. Moreover, the percentage of mis-shapen potatoes and culls was reduced considerably.

For this reason, the county club leaders, under the direction of Mr. Turner, have been anxious to put on some demonstrations in these counties and ten of them are now going to receive the benefit of the carload of seed which the agricultural department of the New York Central Lines is donating to the boys' and girls' clubs along its lines. Producers of certified seed in the three northeastern counties of Michigan, appreciating the value of developing a market near at home, are donating this carload of excellent seed stock to the Michigan Central for this purpose. The counties in which these demonstrations plots will be located are as follows: Genesee, Oakland, Lapeer, Macomb, Wayne, Washtenaw, Jackson, Hillsdale, Branch and Calhoun.—L.

TIPS ON BEE-KEEPING.

THE necessary preparations for swarming should be made early, as time is precious when the bees have decided to divide their house. Early swarms are the most profitable.

Careful examination should be made of each hive to determine whether swarming is advisable. Every apiary has a few hives that would grow stronger, make more honey and prove more profitable if they were not allowed to swarm.

Nothing is more discouraging to the bee-keeper than to see a large lusty colony "put out" to parts unknown. It is wise to have a home all in readiness for the outgoing children of the bee-hive.

If old hives are to be used to shelter new swarms, the hives should be thoroughly cleaned and disinfected. There may not be an infectious disease in the apiary, but there may be in the locality, and it is safer to use precaution.

A good practice is to go through the hives frequently during the spring and early summer and cut out the queen cells. In this way, swarming may, in

a large measure, be kept under control. Clipping the queen's wings may prevent losing the first swarm, but not the second. Bees require close attention during the early summer months if a large store of sweet is expected.—Leo C. Reynolds.

FINNISH POPULATION TO INCREASE.

AN unusually large immigration of Finns from Finland to Michigan is evidently due for this summer. Under the immigration laws, supporting affidavits from relatives here relating to the financial standing of prospective immigrants, are required, and inquiries at the Calumet vice-consulate are said to be unusually numerous this spring.

Finland's quota under the present three per cent rule is not filled and a new quota will become available in July. Among the immigrants are numbers of young people and also former residents who, having returned to Finland some years ago, are again returning to this country. The vice-consul reports that few Finns are planning to go back to Finland this summer.

A man-planned garden is often only half useful. Ask the lady who does the cooking what she wants.



Security

Sure Protection to Life, Home and Property

98% of all losses by lightning may be prevented by our **Security Water Grounded Lightning Rod System**. Our valuable book on Lightning, its ravages and its control, shows statements from Insurance Companies and Government authorities that will convince you.

Does lightning frighten you? You and your family should know more about it. It ruins property and kills people, but will lightning ever strike my barn or my home, or kill my stock or my family? Oh, it might! Listen neighbor, the percentage of all fire losses due to lightning is amazingly large. Don't fool yourself into the belief that you are secure unless you are protected by the **Security Water Grounding System**.

Write for the booklet and learn the facts, and let us tell you how secure and safe you may be by our System. **Drop us a postcard now. Today.**

SECURITY LIGHTNING ROD COMPANY
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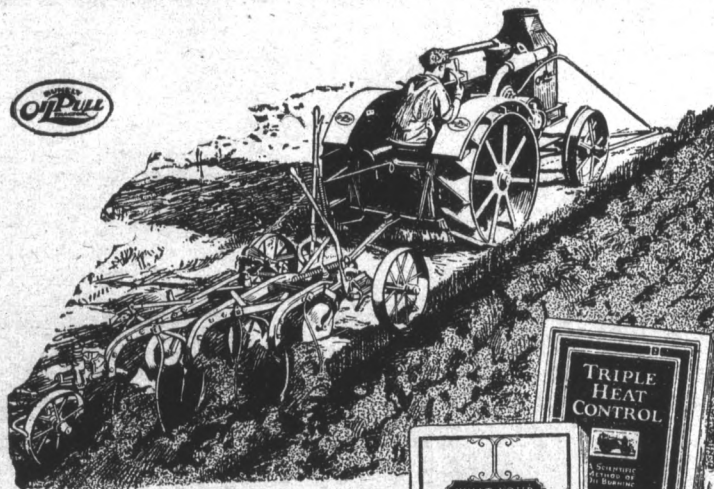
Kalamazoo GLAZED TILE BUILDINGS

Make more profit out of your herd. Save repair and paint bills; reduce fire hazard; keep stock comfortable and healthy; warm in winter, cool in summer; decay, storm and vermin-proof; will not burn. Kalamazoo Tile is made from selected quality fire clay in our own plant located in the center of the finest fire clay district. **Let our Building Plan Department help you.** Write for descriptive literature. Free estimates on receipt of your rough plans.

Kalamazoo Silos Choice of Wood Stave or Glazed Tile construction. Product of thirty years' experience in silo building. A Kalamazoo Silo gives you greater production at less cost—more profit—an investment that will yield a handsome dividend year after year. Write for Free Silo Book.

Kalamazoo Tank & Silo Co., Dept. 423 Kalamazoo, Mich.

No day
too long
—no load
too heavy



L. W. Trow, of Alpena, South Dakota, sends an enthusiastic letter — just one of many which the mails continually bring us. In one place this practical farmer says, "The Rumely OILPULL is the most successful kerosene burning tractor on the market today — the most powerful for its rating. There is no limit to the work and grief it will undergo. No day is too long, no load too heavy." And it is not in the North alone that this is true. From South, West and East the same messages come, warmly praising the great dependability and faithful performance of the OilPull.



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Booklet and
Letters

OILPULL

"The Cheapest Farm Power"

No matter where you are located you want a dependable tractor—one that will start in any weather—that will be ready when you need it—that will not overheat or balk when time is short or work heavy. We have hundreds of letters from enthusiastic American farmers—some in your section. Read them. Get real farmers' experiences with the OILPULL. See what they say about Triple Heat Control, Dual Lubrication and other OILPULL features.

If you will write we will send the letters and our new booklet describing the revolutionary effects of Triple Heat Control. In the meantime see the local Advance-Rumely dealer.

Why an OilPull Pays

- 1 **LOW FUEL COST.** The OilPull holds all principal fuel economy records of the past 10 years.
- 2 **LOW UPKEEP COST.** OilPull average upkeep is only 50% of the U. S. Government figures on average tractor upkeep.
- 3 **LONG LIFE.** OilPull life averages 10 years and over.
- 4 **REASONABLE PRICE.**

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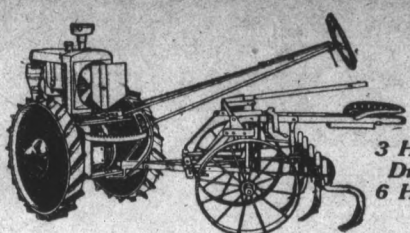
THRESHER COMPANY, Inc., La Porte, Indiana

Battle Creek, Mich.
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The Advance-Rumely Line includes kerosene tractors, steam engines, grain and rice threshers, alfalfa and clover hullers, husker shredders and motor trucks.
Served from 33 Branches and Warehouses

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**Makes Cultivating
Easy TO Do!**



3 H. P. at
Drawbar
6 H. P. at
Belt

THE "ARO" does all kinds of cultivating. It fits any row—any crop—straddles narrow rows—goes between wider rows. It's as easy to handle as an automobile—all controls in front of operator—and you ride! Easy to steer, turns in a very short radius. Users report that it does the work of a riding cultivator and two horses—at less cost!

The Ideal Small Farm Tractor

Not a toy—not a so-called "garden tractor" but a real power plant for plowing, (pulls a riding sulky with 10 or 12 inch bottom) discing, seeding, spraying, belt work, etc. On large farms it does the work that big tractors can't do. Stands up under long hours of heavy work. It saves time. It does good work. You can depend on it.

RAY E. McHUGH, 640 E. Michigan Ave., Lansing, Mich.

STATE DISTRIBUTOR

Mfg'd by ARO Tractor Co., Minneapolis, Minn.

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Special discount given when used in combination with 7 other Capper Publications. Write for special real estate advertising rates on these papers which reach over a million and a half families

PAY NO ADVANCE FEE; don't give option or tie up real estate for any kind of contract without first knowing those you are dealing with are absolutely honorable, responsible and reliable.

Fully Equipped 114 Acres, Stock Tools, Growing Crops.

Located 3 miles from town with advantages, mail delivered, telephone; 60 acres level loamy tillage, spring watered; wire fenced pasture, 37 acres woodland, estimated 2000 cords wood, fruit home use; 2 story 10 room house, painted, cellar, well water, nice shade; 45 ft. basement barn, painted, hay fork, windmill, other bldgs. For quick sale owner includes 2 horses, 3 cows, brood sow, 25 hens, farming implements, 5 acres oats, 6 acres alfalfa, 4 acres wheat, 5 acres fitted for corn, 1/4 acre potatoes, etc., all for \$5300 with \$1500 down. See George Wickwire, 24 Sun Bldg. Jackson or Michigan Farm Agency, 623 Ford Bldg., Detroit.

55 Acre Michigan Farm Growing Crops, 3 Cows and

Horse, flock poultry, brood sow, cream separator, tools, implements; on excellent road, convenient advantages; machine-worked loamy fields, wire-fenced pasture, woodlot; 125-tree apple orchard bearing well, pears, plums, peaches, grapes, berries; comfortable house, ample barn, poultry house. Owner called away, low price \$3350, part cash. Details this and 38-acre equipped farm \$2300, only \$800 needed, same same trip, page 27 illus. Catalog Bargains, many states. Copy free. STROUT FARM AGENCY, 427KH Marquette Bldg., Chicago, Ill.

FOR SALE 640 ACRES

of rolling loam land suitable for farming or grazing, watered by fine spring trout stream, located one mile East of Loranger on M. O. R. R. and trunk line highway, and about six miles from City of West Branch, the county seat of Ogemaw County, one of the finest counties in Michigan, at \$12.00 per acre if sold in block, on terms to suit purchasers. Owner WILLIAM T. YEO, West Branch, Michigan.

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80 Acres Improved \$65 per acre \$1000 cash. 160 acres improved \$67.50 per acre \$1000 cash. THE ALLEN COUNTY INVESTMENT CO., Iola, Kansas.

WANT TO HEAR from owner having farm for sale. Must be a bargain for cash. ALBERT J. SHIRLEY, 703 South Rose St. Kalamazoo, Mich.

CASH YOUR PROPERTY QUICKLY, location immaterial. Give best price. Universal Sales Agency, Box 43, N. Topeka, Kans.

Want to hear from party having farm for sale. Give particulars and lowest price. JOHN J. BLACK, Capper St., Chippawa Falls, Wis.

WANTED—To hear from owner of land for sale. O. K. HAWLEY, BALDWIN, WIS.

Farm Wanted Near school; at spot cash price. Mean business. Fuller, Wichita, Ks.

THE BEST farms in Kansas. Easy terms. KANSAS COLORADO LAND CO., Winfield, Kans.

Farm Wanted, Immediately. Send particulars, Mrs. Baldwin, 1931 Forest, St. Louis, Mo.

STOCK FARM AT AUCTION, WITH or WITHOUT STOCK and EQUIPMENT

This beautifully located ranch is one mile south of the Court House at West Branch, the county seat of Ogemaw County, on improved state trunk line highway No. 30.

It contains 1017 acres of good clay loam soil; 500 acres under cultivation; 25 acres 20-year-old apple orchard, practically all standard winter varieties, Spies, Steele Reds, Baldwins, etc., all of which have been sprayed and given best of care.

A Completes Up-to-date Farm Plant

Buildings include 3 houses, 7 large barns with modern equipment and other outbuildings. Buildings are equipped with flowing well water system. Farm completely fenced with woven wire fences into 80-acre fields. Every field watered by flowing well or running water.

Crops include 170 acres hay, 20 acres of which is alfalfa; 45 acres oats and barley; 50 acres corn, and 10 acres potatoes.

Sale at Farm on June 6, at 1:00 P.M.

This farm will be offered for sale at public auction on the premises at 1 o'clock p. m. on June 6, together with all its equipment of stock and tools, or without stock and equipment at option of purchaser. Farm will be sold subject to a \$50,000 five-year 7% mortgage, calling for no payments on principal before due.

Terms of sale, including stock and tools, \$10,000 down, balance in six months down to amount of mortgage.

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I Want Farms in Mich. for cash buyers. Describe and state price. R. A. McNow, 324 Wilkinson Bldg., Omaha, Neb.

For Lease Good 200 acre farm or assistant on same. R. W. ANDERSON, Clarkston, Mich.

Send No Money!



See what a bargain we offer in this men's excellent tan grain leather Scout Shoe. Built with solid grain leather insoles and genuine oak leather outsoles. Wonderfully comfortable and really an astounding value. No. 0966. Sizes 6 to 12. Price.....\$1.93 Same model as above in Boys' sizes 1 to 5 1/2. Price.....\$1.83 No. 9660. Little Gents', sizes 9 to 13 1/2. Price.....\$1.83 ACT QUICK! Don't put off sending. Order while stock lasts. No money—just give name, address, number of shoe and size wanted. Pay only our smashed bargain price and postage on arrival. Try shoes on. If not satisfied, return them and we refund your money instantly.

CHASE SHOE CO.
Dept. 174 MINNEAPOLIS MINN.

The Handy Man's Corner

SELLS COTTAGE CHEESE.

WE have about twenty quarts of surplus skim-milk each day that we have nothing to feed to. My mother lives with us, so she has developed quite a lucrative business by making this skim-milk into cottage cheese, or Schmierkase, as the Germans call it. This is put up in one-pint paper containers, and placed on sale at two meat markets in Boyne City. There is a ready sale of from thirty to forty pints per week, at fifteen cents per pint wholesale. Aside from a little salt, and two and one-half cents for each container, the returns are pure profit, for otherwise the milk would be wasted.—Douglas Tibbits, Boyne City.

CARE FOR CORN SHOCKS.

EVERY fall there is an enormous waste of corn and fodder, that could have been saved by the shocks being properly tied.

We set up four or six rows of shocks across the field and then with a ten or twelve-foot rope two of us take hold two or three feet from each end, walk up to a shock, holding our rope at the

be had by carting the surplus to the city. In fact, much of the crops sold at the roadside would not be taken to the city because the quantity is too small.—R. Sojyn, Wayne County.

SOLD EXCESS RHUBARB.

WE have in our garden a number of rhubarb plants. We have never before sold stalks from these plants, but this year we did, and found that it brought us in several dollars which we otherwise would not have had. We certainly were surprised to find so many of our neighbors without this early spring crop, yet there is scarcely one of the families that do not like it.—Carl Branton, Shiawassee County.

GOT RID OF OLD IRON.

I HAVE discovered that the implement dealers charge us more for new implements than we can get for the old iron. However, much of this old iron gathers around the ordinary farm. We gathered what we could find about the buildings and the total went nearly to the half-ton mark. When the buyer left we had a few shekels and the iron was out of the road.—R. Watkins, Alpena County.

Francisco Farm Notes

By P. P. Pop

RECENTLY C. W. writes from Clare, Michigan, after this manner: "What would be a good ration for fifteen six-weeks-old pigs so they would be fit for market by the time they are six months old? They will get the skim-milk from five cows and the run of one and one-half acres of red clover. Have bran, middlings, cull beans, ground oats and ear corn on hand. Would tankage also be needed, and is it safe in summer time? Please advise."

This is a question that is confronting many a swine grower at this season. We are ourselves figuring on the same problem, although without the variety of foods to choose from that C. W. has. We are also working for the greatest gains we can get in six months and at the least expense.

At present the ration stands thus for fifty pigs: Three acres of thick new clover with a sprinkling of alfalfa for forage, about all the ear corn they will clean up twice a day, and a self-feeder containing tankage in one compartment, and a mixture of ground oats, barley and middlings, equal parts, in the other. In addition to this we aim to keep clean water before them at all times, and see that they have shade from the hot sun, and shelter from the storms. If we had skim-milk in anything like the quantity above mentioned we would think we had the world by the horns. We would not expect them to eat much tankage in that case.

Six-months-old Pigs Average 276 Pounds.

The heaviest litter in the Indiana ton litter contest last year was fed almost exclusively on skim-milk and corn, with clover pasture to run in. They weighed at six months of age an average of 276 pounds each. Evidently skim-milk and corn and clover make a pretty good ration. Middlings and ground oats will add variety to the ration, but may make the gains a little more expensive. Cull beans will cheapen the ration, but will need to be cooked, and are not so well liked by the pigs. Tankage of a feeding grade (not fertilizer tankage) is a good substitute for skim-milk and is perfectly safe, but with plenty of skim-milk available it is not necessary.

proper height, walk half-way round it and sling each other the end we have. If I am carrying the twine to tie the shock, I throw my rope-end always over the one my partner throws to me. We step back one step so as not to twist the shock, out away from the shock, one step and then pull together. When the pull is completed my father, or whoever holds the other end of the rope, drops his hands maybe a foot, still keeping his rope tight. That lets his rope bind mind, so I can let go entirely and use both hands to put on the string just above the rope. After the knot is tied all he needs to do is to give the end he is holding a flirt back over on my side and start for the next shock.

Corn tied up, with a little muscle on the pull, in this fashion, will stand. We have had fields with not a down shock at husking time and so have the neighbors who use this method since father showed them how.

It takes an hour to tell how to do it, but my neighbor and I can tie up two a minute, and when we get done, the shocks will stand.—Wm. C. Austin, Laingsburg.

ROADSIDE MARKET BRINGS CASH.

PROPERLY conducted the roadside markets brings dollars out of the little garden crops that are usually wasted. We do general farming, but also have a good garden. Tourists and others who do not happen to have good garden stuff come and buy from our front door at prices that give us much or more satisfaction than could

News From Cloverland

By L. A. Chase

LAND-CLEARING ACTIVITIES.

MR. L. F. LIVINGSTON, land-clearing specialist of the Michigan Agricultural College, has announced his summer's work, which will be aimed primarily to help the farmer already on the land clear enough acres to yield him a living. Two motor-truck trains will be operated, this season, which will work through eight counties, each crew making more than fifty stops. Each crew will consist of seven men traveling in two cars. There will be a truck and a tractor drawing a two-and-one-half-ton trailer. Explosives and stump-removal equipment will be carried on the truck and trailer. Home-made devices for taking the back-ache out of land-clearing will be taken along. Points that could not be reached last season will be reached this year. Preparatory meetings were held last winter and local committees of farmers have been assigned the local arrangements for the forth-coming schools. Unlike the northern counties of the Southern Peninsula, Upper Peninsula farmers, who have in many cases earned good wages in the woods, this winter have purchased explosives this spring to a larger extent than in any previous year, Mr. Livingston reports.

THE TIMBER SITUATION.

DISCUSSING the timber situation in the Upper Peninsula, recently, Mr. E. A. Hamar, of Chassell, a well-known Upper Peninsula lumberman, places the timbered area of this territory at about half the total area of some 10,000,000 acres on which the estimated stand of saw-timber is about 35,000,000,000 board feet and about 15,000,000,000 feet of miscellaneous timber, such as pulp-wood, tie-timber, cedar poles and posts. The annual cut is about 1,000,000,000 feet per year of all kinds. Thus forty to fifty years will exhaust the stands here if no allowance is made for new growth. Using figures prepared by the United States Forest Service, the renewal amounts to about half the annual cut. Much of this renewal growth is not recoverable, Mr. Hamar says, because much of it matures and dies before the lumberman can reach it, since selective cutting has not been adopted here.

Reforestation in the northern states, Mr. Hamar avers, is difficult because the forests are mixed hard and soft woods, the former predominating, and these hardwoods are slow-growing. In addition there is a good deal of un-

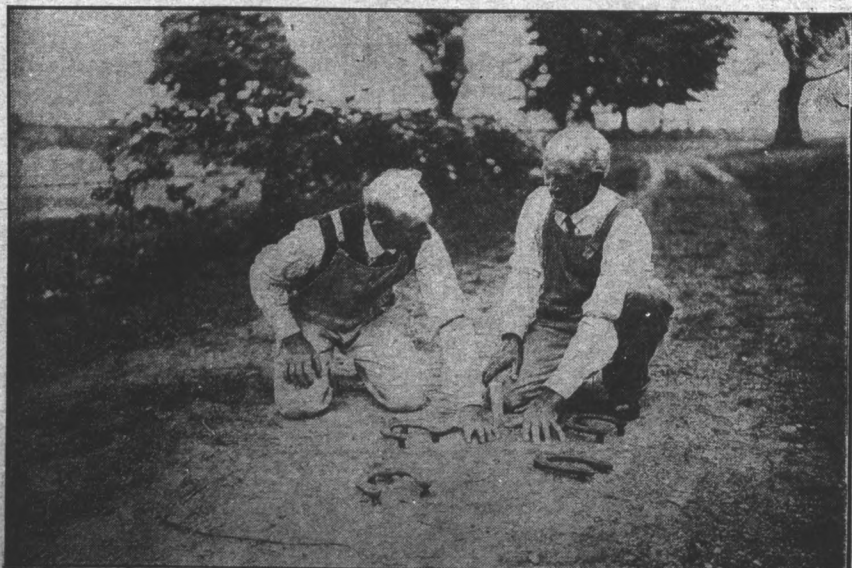
derbrush in the way. Mr. Hamar calls attention to the western practice of leaving in the forest after lumbering has been completed, a few seed-trees to continue the renewal naturally. It is first necessary to remove the slash by burning, whereupon seedlings spring up and cover the area. Michigan is producing about as much timber as it is consuming, said Mr. Hamar, and with a careful conservation policy, we can continue to meet our requirements indefinitely. Our reforestation problem is not so much one of re-planting as of fire control, he said. Mr. Hamar did not think that Michigan lumbermen could afford to burn their brush and slashings so long as southern and western lumbermen were not required to do so. This would enhance the cost of lumbering and put Michigan producers at a disadvantage. Mr. Hamar did not think it would be practicable to put the cut-over lands of Michigan into farms. These are being added to at the rate of 100,000 acres per year—much ahead of the increase in agricultural lands—and he preferred to see much of the area returned to the forest which has covered it. It is just as practicable to grow crops of timber as of farm products and Michigan should seek to meet its timber requirements at home for all time to come, he said.

CLOVERLAND FARMING CONDITIONS IMPROVE.

THAT farming is on the upward curve is the opinion of Mr. E. G. Quamme, president of the Federal Land Bank of St. Paul, which serves this territory, and, just as four years ago he warned against over-expansion in the purchasing of farm lands, he now states his belief that it is a good time to increase farm land holdings.

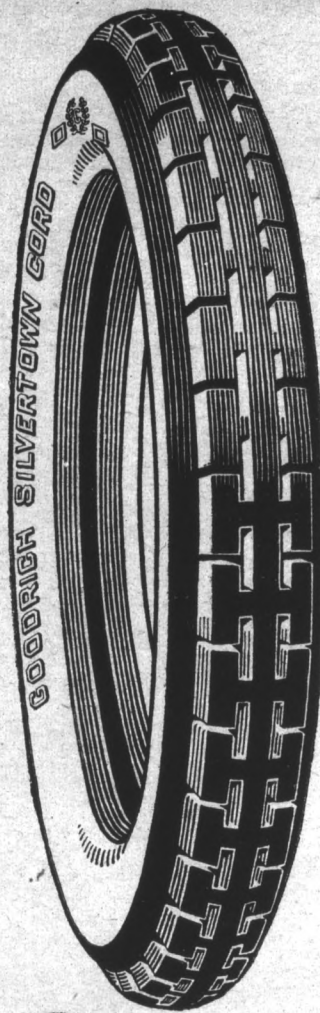
Land values reached rock bottom in this region last October, he says, and they are now advancing and will continue to do so. Interest rates are at the same time falling and money can be had at five or five and one-half per cent. Interest rates for real estate purchases will not fall below that figure, he predicts.

He thinks the bankers were wrong in supporting the boom four years ago and he thinks they are also wrong in holding back their support of farm land purchases now. At the same time the Upper Peninsula Development Bureau is urging bankers of this territory to come forward and assist boys and girls in financing their club activities where these call for credit to purchase live stock and otherwise.



The Season is Open Again and Youth will be Revived. Close Throws May Threaten Friendship But a Ringer will Never be Disputed.

The Reasons inside the hard-shell fact



There is something goes into the Silvertown Tire from which the farmer reaps service. It is as real as the seed that goes into the ground from which grow his crops.

You see it in Silvertown's rugged body—tough, slow-wearing, anti-skid tread—and sidewalls extra fortified with tread rubber to protect them from the road ruts of dry, hard-pan weather.

The experienced farmer invests in quality in whatever he buys for the farm, with a weather-eye on the ultimate cost.

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Homeseekers' Rates on Canadian Railroads

If you wish to look over the country with a view to taking up land get an order from the nearest Canadian Government Agent for special rates on Canadian railroads. Make this your summer outing—Canada welcomes tourists—no passports required—have a great trip and see with your own eyes the opportunities that await you.

For full information, with free booklets and maps, write

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Nitrate of Soda

200 pounds per acre

is what successful market gardeners are using and recommending for this purpose.

My *Free Bulletin Service* will help you get better and more profitable results from your gardens. If you wish to receive it send me your address and to identify this advertisement mention the number 1517.

Dr. William S. Myers, Director
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BIGGEST BARGAIN EVER OFFERED!

ON L Y \$3.98 On Arrival

King "Tut" FLOWERED Paisley and Canton Crepe

Almost unbelievable at our special low price but—see for yourself, without any risk and entirely on approval—Can you imagine only \$3.98 for this latest style, original Paris model of King "Tut" flowered Paisley in many colored Egyptian pattern and highly lustrous mercerized cotton CANTON CREPE. The most beautiful dress of the season. Wide, newest overlapping panels and sleeves of Paisley. Stylish long length skirt, newest fine cuffs and belt forming in to big bow are of French Blue cotton Canton Crepe. Smart Bertha collar of finest quality Valenciennes lace and ruffled French net. This dress is finely tailored of the best quality materials and has every popular style feature shown this season. Take advantage of this once-in-a-lifetime opportunity to be stylishly dressed and at such a low cost.

Send No Money

But rush your order Now! Give us name, address and size. Pay the mailman as good faith deposit \$3.98 plus a few cents for postage when the package arrives. Then examine the dress to your heart's content. Note the splendid material and the trim stylish lines. If not satisfied return to us and we will refund every cent of your money.

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SIZES for Women 32 to 46 For Misses 14, 16 and 18

Be Sure to State Size

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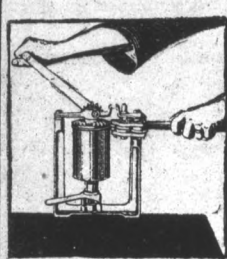
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It tells how to prepare and can vegetables, fruits, meats, fish in your own kitchen, so that your family can live like princes the year round, at from \$10.00 to \$30.00 a month less than it costs you now, depending on the size of your family.

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Seals the foods in bright new sanitary tin cans at a cost of only about 3c per can—Uses no solder, yet seals as completely as the big canners do it. Make your kitchen garden feed your whole family a whole year, and if you raise more than you need, can it all and sell the surplus at a profit.

Burpee System has the approval of the U. S. Department of Agriculture, and leading domestic science authorities.

Write for the above book now, so you can plant your garden wisely.

BURPEE CAN SEALER CO.

215 W. Huron St., Dept. T Chicago, Ill.

A few counties in your state are still open, for local demonstrators and sales representatives—men or women. Pleasant, profitable employment for part or full time. Write for particulars.

Marathon Cord Tires

30x3 1/2	Reg. size	\$12.50	Tube	\$2.44
30x3 1/2	Oversize	14.50	"	2.78
32x3 1/2	S. S.	19.80	"	2.89
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32x4	"	25.15	"	3.19
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Other sizes in proportion Big Standard Brand Tires. Guaranteed 10,000 miles. Sent prepaid. Buy now. You will pay more later.

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THE MICHIGAN FARMER

Rural Health

By Dr. C. H. Lerrigo

THE SATURDAY BATH.

ALL children love to bathe, if they can do it in their own way, but very few of them love to "take a bath" in the old-fashioned style, which entails assuming a cramped position in a galvanized wash tub placed in the middle of a draughty kitchen floor.

You can't really blame them. None of us ever enjoyed it, even though it is a fact that the baths of our childhood days were mostly taken in that way, long after mother's supervision had been indignantly spurned.

Saturday night and the cleansing scrub are still pretty closely associated in most homes, but the relationship is neither so arbitrary nor so painful as of old. The youngster who enjoys the comfort of a modern bathroom learns to scrub his skin after every earth-stained adventure, so there is not such a tremendous accretion for Saturday night. Furthermore, he no longer has to be driven since the function gives him the luxurious possibility of stretching full length in a bath that is almost big enough to allow of swimming, and in a tub with such smooth and shiny surfaces that the tenderest skin can enjoy their contact.

A youngster brought up in this way never loses his appreciation of the bath. Cleanliness becomes with him a habit. It influences all phases of his life. It makes him love a clean skin, clean clothes, clean houses, clean people and clean habits.

Get a bathtub in the home as quickly as possible and while you are waiting for the days of sanitary plumbing try a substitute. Select one room in the house that can be readily and quickly warmed. Install therein a tank of water; or at least a pitcher, a basin and a receptacle for waste. Put up a towel rack and see that it is always filled with substantial towels. Make this do for a bathroom. Use it every day if you can; once a week is not sufficient. If you have the room warm, the temperature of the water is not so important; better cool than warm. Sponge the body quickly and then take a brisk rub with one of the heavy towels. It is the best tonic in the world. Very young or very old persons should take the chill off the water before applying, but cold water is fine for the young and vigorous.

It will help your digestion.
It will help your digestion.
It will help your elimination.
It will keep you from colds.
It will keep you young.

A MOTHER'S QUESTION.

I am nursing a baby who is now nine months old, but I believe that I am again pregnant. Is it necessary for me to wean the baby so long as I seem to have plenty of milk.—Young Mother.

Yes. The milk will lack certain essential elements. Furthermore, it will be harmful both to you and the unborn babe to continue the nursing.

GETTING RID OF ITCH.

What can be done to get rid of the itch? Is a baby three months old liable to catch it? How can one prevent the other members of the family from getting it, when only child only has it?—Reader.

Babies of three months may take the itch if the itch mite is allowed to infect the bedding or clothing with which they come in contact. The only way to prevent others taking it is to

exercise the greatest care against using towels, bedding, clothing or anything that has been used by the infected person. To cure the disease, scrub thoroughly with hot water and green soap and then apply sulphur ointment all over the body. Repeat after three days. Two treatments should cure, if patient does not get reinfected

Getting Johnny and Mary to School

(Continued from page 735).

bus is five and a half miles. About half of the contractors own their chassis only, the body being owned by the school district.

In Michigan, where the consolidated district is seldom larger than a township, it is usually more satisfactory to transport a reasonably small number of children a short distance than to use heavy, large-capacity vehicles for the transportation of a large number for a long distance.

In some sections, however, it may seem advisable to use fairly large-capacity busses along state improved trunk lines with lighter, smaller-capacity vehicles—perhaps horse-drawn—used as feeders on the unimproved roads, but this procedure should be attempted with caution because it is very difficult indeed to maintain a definite time schedule.

The operation of school-owned buses is a very flexible matter and motors may be sent out along improved highways to receive the load transferred from a horse-drawn vehicle operated over an unimproved road merely as a temporary measure with no added expense to the district. Opportunity is also afforded for one motor to go to the assistance of another which may have had difficulty on the road.

All drivers should be required to make daily reports. Such reports have been kept for two years in the Goodrich Consolidated School, in Genesee county, where four successful consolidations have been effected under the inspirational leadership of Commissioner John L. Riegler.

Last year the average time of riding for the first child to enter the bus was thirty-five minutes. This year the average time, to date, is thirty-two minutes. The average greatest distance of transportation is five and one-tenth miles and the average number riding in a bus is twenty-two.

The Cost of Transportation.

Costs of transportation in various schools are not directly comparable, because of the following factors: Varying length of routes; varying extents of road improvement; varying snowfall; varying activity in competitive bidding by contractors; varying standards which boards of education may set on service, equipment and type of vehicle. It is, however, possible to compare the cost of transportation by contractors with that of school ownership and operation.

Three out of the nine school-owned and operated vehicles in Michigan have been used in the Goodrich Consolidated School, Genesee county, since September 1, 1922. Careful and accurate records of costs have been kept and are herewith reported as a

by using contaminated underclothing or sheets.

WHOOPING COUGH.

Is whooping cough contagious three months after it begins?—M. G.

It is possible, but not at all likely. A child who has recovered from the whooping cough is likely to begin coughing again, with very much the same sound as he had while whooping cough was active, if he "takes cold." But its characteristics are different. It does not convulse the child as the original cough did, neither does it cause vomiting. This secondary cough is not contagious.

basis of comparison with contractual transportation costs which are represented by the average costs of transportation in the state of Michigan.

Students in the farm carpentry class in the Goodrich Consolidated School built six motor bus bodies, at a total saving of \$2,490. Three of these bodies are mounted upon school district-owned trucks driven by two students and one teacher. Two of the trucks were new in August, 1922, and the third is a 1920 motor, and was purchased for \$75. This, we believe, represents no better than average equipment.

The other three bodies are mounted upon trucks owned and operated by contractors. Each route is provided with horse-drawn vehicles, four out of the six being owned by the district which will be used whenever transportation by motor is impossible. One student driver receives one dollar per day, and the other seventy-five cents per day. All repair is done in the local garage at prevailing prices.

If costs for drivers, repairs, gasoline, oil and accessories continue at the same rate which has prevailed since September 1, 1922, the total cost of operation for three district-owned and operated buses, including also depreciation and six per cent interest on total investment, will be as follows: The total cost of operating the three trucks is \$1,632.57. Of this amount, \$1,200, or \$400 per bus, is paid by the state in accordance with the provisions of the Rural Agricultural School Act of 1919. This leaves a total expense to the school district of \$432.57 for the operation of these three buses, or \$144.19 per bus.

The average cost per bus for all of the consolidated schools of Michigan is \$841.20, or over three times the average cost of the district-owned and operated buses of Goodrich.

This study has proceeded for too short a time to justify any final conclusions, but definitely indicates that district ownership and operation of school buses in the consolidated schools of Michigan is worthy of serious consideration.

Colorado reports very gratifying results with teacher drivers and more particularly with student drivers, and has employed these types of drivers for some time. The board of education in the Goodrich Consolidated School is seriously contemplating the ownership and operation of the entire transportation system for the ensuing school year, with the repair work carried on under the supervision of a competent supervisor of transportation and teacher of manual arts and auto mechanics.



WORLD EVENTS IN PICTURES



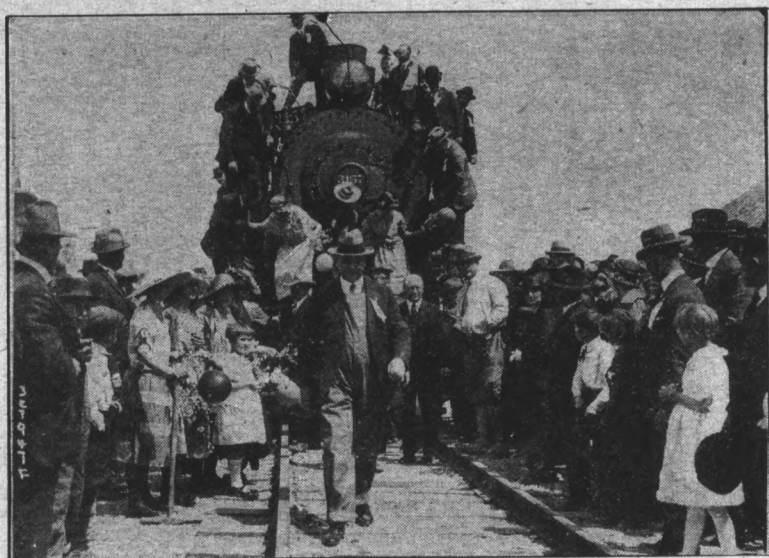
Three U. S. Ambassadors, Cyrus Woods, Col. Georg Harvey and Alanson Harvey returned from Europe on the same ship.



Edward H. Cunningham, Iowa dirt farmer, has been appointed to the Federal Reserve Board.



Margaret Loeffler, Central High School student of Washington, D. C., has been selected as Queen Elizabeth in Shakespeare Pageant.



At Fillmore, Utah, the golden spike was driven in another link of steel which couples up the great west by completing the new Union Pacific line to the famous Pahvant Valley.



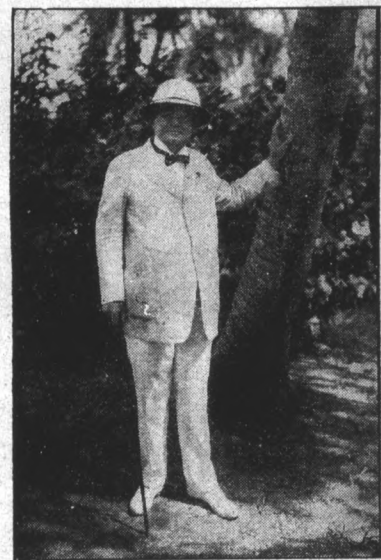
One hundred and fifty thousand people helped to celebrate the opening of New Orleans' industrial canal, five and one-third miles long and creates a new zone for factories and warehouses.



A topic of endless discussion is: Who will the Prince of Wales and Prince Leopold wed?



The first spring crop of straw hats shone forth at the dual track field meet between Dartmouth and the University of Pennsylvania (winners) at Franklin Field, Philadelphia.



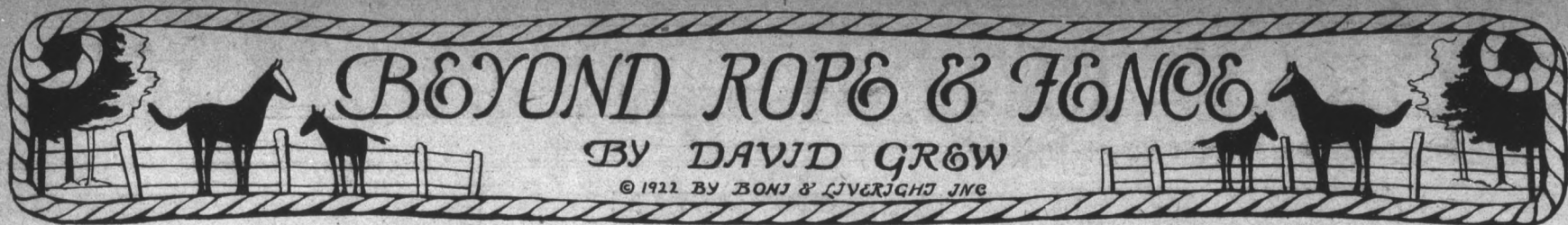
Col. John C. Lewis, grand-nephew of George Washington, is the nearest kin now alive.



At the School of Horticulture for Women at Ambler, Pennsylvania, the fair pupils learn how to handle a team and do everything connected with market gardening.



In the presence of King George, a near riot occurred on Wembley Field, England, after the foot-ball Championship Cup Finals between the Bolton Wanderers (winners), and West Ham United.



BUT keeping them in barns all winter meant the necessity for gathering much greater quantities of hay than they were accustomed to gather, and, worse than that, it meant horses with less energy for seeding time.

Every spring, all manner of attempts were made to capture Queen but every attempt ended in costly failure. Some of the older and weaker horses were taken from the herd each year, but Queen and all the younger horses remained free. Once Queen learned that she was being pursued, it was impossible for them to get within a mile of her.

When these futile attempts to capture her became too annoying, Queen would invariably turn to the north. The ominous barbed wire fences which year after year encroached upon the wild, somehow never appeared on the northern horizon. North, always north, she went, maneuvering with such cunning about the hills and through the deeper valleys, that for every mile she was able to put between herself and her pursuers, they were obliged to travel five.

The Canadian government embarked upon a campaign of advertisement to urge farmers in the United States to go north and take up homesteads in Alberta. Men sold their farms in the northwestern states and moved across the border. Every year a new crop of homesteader's shacks appeared to battle the desolation. To be sure, many a shack built hopefully one year stood gaping like a skull the next; but in spite of the discouraging features of the country, much of the encroachment yearly made upon Queen's domains was permanent.

Every springtime with the blossoming of the wild rose-bushes and the prairie cacti, new fence posts with their glittering lines of barbed wire cut some small portion of her territory on the east, the south and the west. Slowly man crept northward and with an inborn faith in the justice and the security of the wilds, Queen fled at his approach.

THE years rolled by. Old tragic hurts were dulled by the mists of passing time and every hour of the unfettered present came bringing some new joy. New children came to Queen and in the love of each succeeding one, Queen rejoiced as if it were the first and only one. Carefully she led them all to the doorway of maturity and there, since life willed it so, she gave them over to the herd, to live and provide for themselves and to abide by the unwritten laws of the herd in the finest exemplification of the Golden Rule on earth. The friends

which sparkled a thousand star-like who died or who suddenly disappeared she would miss for a long while, sometimes spending months in search of them, then she would transfer her love of them to some other member of the brotherhood, just as she transferred her mother-love from the older to the younger of her offspring.

The shadowy creatures of the receding past often came, walking into the dozing memory at nightfall. Queen would remain lying, chewing absently and watching them, her contentment undisturbed, loving the sad-

land stretched away silent and desolate, merging at the northern horizon in a long, narrow shadow, as of woodland. The tracks remained perfectly motionless and the herd slowly ventured near them. While some of the horses looked on curiously, some of the headstrong young colts to the dismay of their mothers, walked upon the tracks and sniffed at them. Seeing that nothing happened to them, the herd started at once to cross.

Half a mile north of that they came upon another elongated slough which had been hidden by a hill. Always

Had they remained to look at that line of smoke, they might have lost the fear of it. Within a few minutes it went as it had come. The sweet evening air cleared and settled down to the silence they loved. But such is the way of destiny that a thing of smoke and illusion may wield a power greater than that of iron or mind.

They did not wait long enough to see what it really was. An impassable wall had arisen behind them. A guard of ferocious beasts had rushed across their path, shutting from them forever the old south world they knew so well. To Queen it was, in the vaguest sense, somewhat more than that. The apprehensions of the moment were dispelled by the widening distance between them and this weird thing they feared; but a new anxiety crept into Queen's heart, like a snaky creature, and grew bolder there as the danger it forecast approached. It was the fear of the hunted for the cage. It was as if she had entered an enormous trap.

They instinctively kept to a strip of wild prairie several miles in width. On the eastern and western horizon they saw from time to time shacks and barns and fences and huge squares of black, plowed earth; and from the distances came at long intervals the muffled bark of dogs. The feel and the smell of man was in the air, and they found that air hard to breathe. They grazed when hunger asserted itself and rested when the younger colts refused to go on, but continued their migration.

The Footprints of Time

By C. E. Gerberich

My brow is getting wrinkled,
My hair is getting thin,
And my short and stubby whiskers
Look like snowflakes on my chin.

My step has lost its lightness,
I no more can clearly see,
I've a touch of indigestion,
And rheumatism in one knee.

Every day I'm growing deafer
And my wife must loudly yell
Whenever she needs the woodbox filled
Or water from the well.

Times past my voice was musical
All critics will allow;
But what was once a baritone
Is but a bear tone now.

At school my penmanship was praised
Each lesson that I wrote,
But now my fingers tremble so
I scarce can sign a note.

My teeth are few and far between
And I am much in need
Of an enterprising food chopper
To grind up my daily feed.

I went to see a doctor
And he said, "Why, man alive!
You have a high blood pressure."
Then he bled me for a five.

But my heart has not grown aged,
And I hope it never will;
And altho I'm gray and wrinkled,
I'm the same young fellow still.

ness that clings to our sweetest music.

There came a spring of unusual activity on the part of man, and his daily appearance intruded so threateningly upon the herd that they abandoned the land which had become endeared to them and journeyed north almost steadily for many days.

They came upon a pleasant valley abounding in delicious, virgin grass and many small ponds; and they took possession of it. But at midnight, while they were resting, they were suddenly aroused by a shrieking noise which was followed by a long-drawn rattle, like distant thunder.

The sound died out and did not come again, but an attenuated cloud of smoke swept across the valley. Though the rest of that night was undisturbed and the air, from then on, was clear, they kept awake and fearfully restless. At dawn they abandoned the valley though they saw nothing that was alarming; and as they moved northward, they came upon a railroad track.

On the other side of the track the

glad to see water, they trotted down in concert and took possession, once more intending to end the journey. But toward evening while the colts were expressing the joy of life in a gambol about the water, they were startled by another shriek like the one of the night before, and associating it somehow with the tracks, they tore up the slope to see what it was.

IN the distant east glowed a light, like the harvest moon. It gleamed from the center of a black, fear-inspiring object from which clouds of smoke poured into the air and streamed backward into space. They gazed upon it for a few moments as if transfixed, then when they realized that it was coming rapidly nearer, they broke down into the valley, splashing through the slough and sped up the other slope. On the top of that hill, they stopped to look back. The thing was already thundering past them, shutting away the whole of the south with a long, black line of smoke in the air.

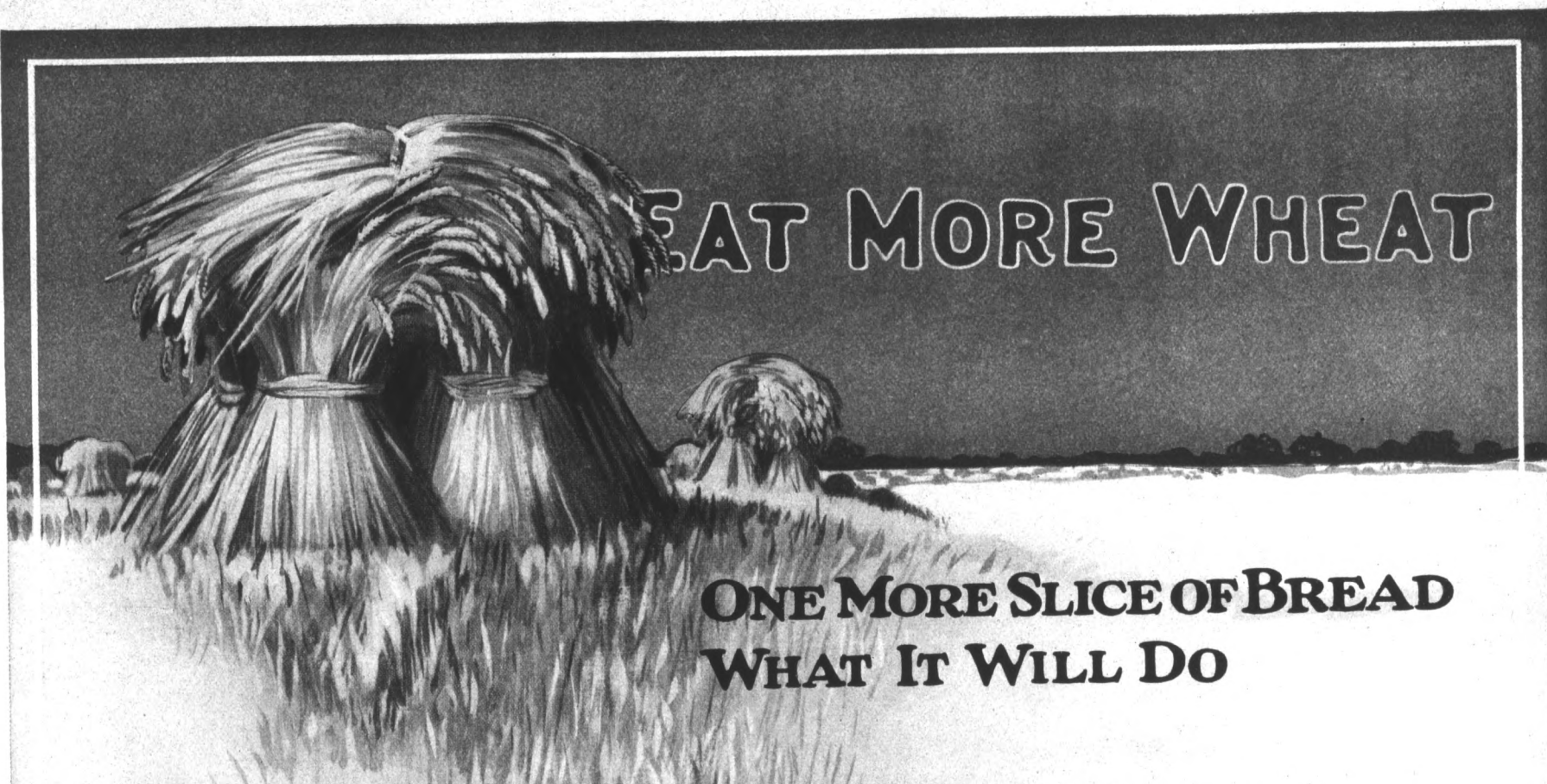
THEY came to a country with no shacks and no fences, and where the evenness was broken only by promising patches of woodland. There the earth seemed destitute of living things and in the moaning of the winds as they blew through the swaying trees, the spirit of loneliness assured them of safety. The grass on the open spaces grew high as if no living thing had ever touched it, and swaying with the trees, it subtly testified to the authenticity of that assurance. In Queen's mind, however, the shacks and the fences and the barking of dogs were as yet too distinct to allow her to feel entirely secure; and she continued the flight, fear urging her to go on till the last trace of man had faded from the air and a wall of solitude and wilderness had covered it. But they came one day to a very steep slope. Tall trees rose from the foot of the slope and beyond their tops Queen saw the reflecting waters of the Saskatchewan pouring along rapidly from west to east.

The river was very wide and the darker waters beneath the brighter (Continued on page 749).

AL ACRES—Slim Isn't A Quitter, but He Had to Strengthen His Fortifications

By Frank R. Leet





DID you ever stop to think that if every one in this country ate an extra slice of bread at each meal, it would use up 171,258,114 more bushels of wheat each year.

This is a little more than the average amount of wheat shipped out of the country each year. This surplus wheat, dumped on the world's market, effects the price paid to the American farmer and prevents him from getting all the money he should.

If everyone did his share and every man, woman and child ate one extra slice of bread at each meal, then we would consume the entire amount that is now shipped out;

The cost of living would be reduced because wheat gives more food value and energy for the money;

The health of the nation would improve because wheat is the most nearly complete food and supplies all the elements for health and strength;

The public could afford to pay the farmer more money for his wheat and still save money because wheat would replace more expensive foods;

Then, too;

The farmer would benefit by the increased use of his other products; more bread means more bread and milk, bread and butter, bread and cheese, bread and honey, and more meat sandwiches. Think it over!

This can be done, but you must start, you must get your neighbor to start and you must influence everyone you can to eat just one more slice of bread or its equivalent at each meal. Commence Today!

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Time to Re-tire?
(Buy Fisk)

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Beyond Rope and Fence

(Continued from page 746).

surface indicated a perilous depth. The fear of the trap that had been vague in Queen's mind now became distinct as she gazed at the obscure distance from which the river came and at the shadowy spaces into which it rushed. Her faith in the north had given her a decade of precarious freedom and had taken her two hundred miles from her birthplace. The sight of those impassable volumes of water staggered that faith. She grew nervous and restless and when the herd had drunk the treacherous water, she led them away to the west.

A HALF day's journey brought them to where the Vermillion River comes pouring down from the south and west and breaks into the Saskatchewan, with a threatening roar. Again Queen felt that she had come to another wall of the trap and turning, led the herd back toward the east. A few days of grazing and moving east along the Saskatchewan brought them to a barbed wire fence that ran down the banks to the very edge of the river. Ever as she had followed the slightly winding river, she had searched in vain for a ford. The doors of the north, too, had closed to them, and their freedom now depended upon a battle of wits, the wits of the herd in the limited wilds against the wits of man in his protecting civilization.

They returned to the middle of the unsettled belt and there Queen spent a happy week of freedom, disturbed only by the promptings of the canker within her which derived its sustenance from the frequent appearance of men on horseback.

Seeding-time arrived and the homesteaders who lived south of the railroad tracks went forth to hunt for the horses they had released the preceding fall. The homesteaders who lived on the outskirts of these wilds, in the hope of capturing some of the unclaimed horses, joined them. But with a cunning that exasperated the hunters, Queen went from one hiding place to another, detecting every approach so long before the horsemen appeared that in the first full week of searching she was seen only on two occasions.

The homesteaders became desperate. The snows were fast disappearing and the land was in best condition for their work. They appealed to the Canadian government and half a dozen members of the Royal Northwest Mounted Police came out to reinforce them in the war to the knife that was declared upon Queen and her followers.

Several times a day Queen would run down the banks of the Saskatchewan. At the river she would take a few sips of water as if she had come to drink and then she would stand and look longingly across the roaring deeps to the wilds beyond, suppressing the constantly rising impulse to plunge into the rapid waters and beat her way to the freedom of the north, which seemed, after half a lifetime of benefaction, to have abandoned her. Then one day the impulse came with overwhelming suddenness and she struck out madly for the other shore. But when she felt the bottom drop away from under her feet, she became frightened. The remnants of the huge snow drifts that were still melting

kept the river swollen to twice its volume. The current lifted her and carried her several rods downstream, fortunately for her, hitting a bar and depositing her there.

Puffing and snorting and registering the promise that she would never try it again, Queen finally clambered back upon the shore where she shook the water from her body. Some of the horses who had watched the whole performance with anxiety, came trotting toward her. Queen joined them dejectedly, grateful to be out of the treacherous water, but remembering that she was being hunted and realizing now that there was no chance of getting across the river and that her only hope lay in her delicate legs and the cunning that many years of resistance to man had developed.

A FEW days passed by in which all hostilities on the part of the homesteaders and the mounted police seemed to have ceased. Queen began to feel that the war had been abandoned; but she was surprised one very early morning by a formidable group of horsemen, less than a quarter of a mile to the east from where the herd was grazing, who were coming at full speed. A strong wind had been blowing from the west and had carried the scent and sound of them away. A lull in the wind apprised her of the enemy's approach.

They had been moving along the edge of a patch of dense woodland, the wall of which stretched from the Saskatchewan to a point a little more than a mile south of the river. There was no opening between the trees and the brush. The only chance for escape lay in a wild dash south and in reaching the end of the wooded wall before the horsemen could reach it. That chance they took.

The horsemen divided into groups. One group sped away southwest at an angle, while another going straight west, spread out on a long line to prevent the herd from going back to the river.

It was a close race. Every animal, pursuing or pursued, groaned in the terrible exertion of it. The younger and the stronger of the herd led the race, with Queen's magnificent head in front. Behind the group of fastest runners came the mothers with their colts, and the old workworn horses brought up the rear. Though spurs dug unmercifully into wet, throbbing sides, staining them with small red spots, the forefront of the herd, unencumbered by riders, won the end of the wall and broke away to the west in safety. Not until the wall point was almost out of sight did they stop to look back and when Queen finally felt it safe to do so and swung round a knoll, she saw no sign of her pursuers; but the far greater portion of the herd was gone with them.

About a mile southwest of where they were, they knew of a slough. It was down in a deep hollow and though they would rather have remained on the hills where they could more easily spy anyone coming after them, they were very thirsty and trotted away for water. At the rim of the hollow some of them stopped to look about before going down, others broke down on a run.

(Continued next week).



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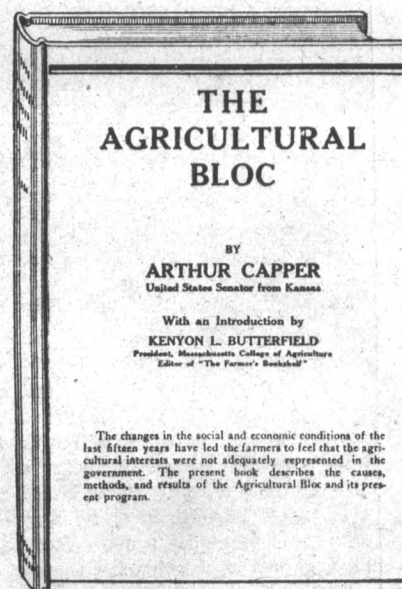
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Woman's Interests



Canning and Cooking with Steam

Timely Suggestions Concerning Value of the Steam Pressure Cooker in Home

TO reduce cookery to the least possible amount of work is not the sign of a lazy or shiftless housekeeper. A woman must take short-cuts in preparing the necessary "three squares a day" if she is to have time to enjoy her friends, books, music, or take part in the women's activities and recreation of the community.

There are two ways of cutting down on the labor of preparing a meal.—One is to make use of certain devices which really save labor and time, such as the steam pressure cooker and various other devices. The other way is

of ten minutes to have an extra amount ready to be served. Cereals may be ready to serve in twenty minutes, when the process would be lengthened to four or five hours by the use of ordinary methods. The toughest of roasts may be cooked, allowing ten minutes to the pound. A steam pudding placed in the cooker under ten pounds pressure will be ready to serve in twenty-five minutes.

Economical in Fuel.

This shortening of the cooking period is a great economy in fuel. Only a low, steady fire is needed to maintain ten pounds pressure within the cooker. With an oil stove, this pressure is easily regulated by adjusting the wick. Whole meals may be cooked in the cooker at one time if the meal is well planned. The meat may be placed in the bottom and the vegetables in separate compartments in the top. The general rule to follow is to have the strongest flavored vegetables at the top. This entails the using of but one burner of an oil stove, while the average housewife uses three and sometimes four burners when preparing a meal.

The canning process is greatly simplified by utilizing a steam pressure cooker. The period of cold-pack canning is lessened by more than half and the housewife may feel perfectly sure that when she opens a can of peas, beans, or meat next winter that these products will be just as savory as when brought in from the garden last August. They will only need to be heated to be ready to serve. The cooker eliminates many tedious hours spent in a warm, stuffy kitchen on a sweltering day in July when certain fruits and vegetables are ready to be canned.

When canning the water in the cooker should not come above the rack supporting the jars. A time-table for canning with a pressure cooker will be printed on this page in an early issue.

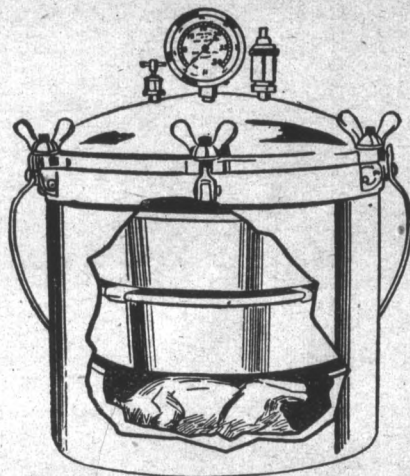
TRY SOME RAISED DOUGHNUTS.

WHEN you are tired of making just the ordinary doughnuts, try these raised ones for a change. We like them fine. At noon when potatoes are done, mix one tablespoonful of flour, one tablespoonful of sugar, one teaspoonful of salt, add one good-sized potato and scald with potato water. When lukewarm, add one cake of compressed yeast. Let this set until night when it will be foamy over the top. Then mix with one-half gallon of warm milk, as sponge for bread. In the morning put in two cups of sugar, six eggs, and cream or lard for shortening, seasoning and salt to taste. Mix stiff as for bread. Let raise until

quite light, and roll out what can be handled at one time. Cut and fry in hot lard and roll in powdered sugar. This is a large recipe and can be halved for a small family.

HAVING THE MEN FOLKS HELP.

IT'S certainly a great help to have the men folks taught so they can help out in trying times. I had a load of six people come to our house last summer. After supper was over, each one got up from the table and carried their dishes to the kitchen. When I went to the dining-room to clear up the table there was only the food to



to select a menu that is simple to prepare. The latter is not always suited to the taste and the material at hand. But the former short-cut is ever practical.

Construction of Steam Cooker.

Let us consider some points of the pressure cooker. The principle of construction of the cooker is similar to that of a steam boiler. Steam is generated from a small amount of water placed in the bottom or from the moisture surrounding and contained in the food being cooked. This steam is confined within the cooker at varying degrees of pressure. When steam is under pressure, it has a higher temperature than boiling water. The temperature increases as the pressure increases, thus shortening the canning and cooking period.

A dial steam gauge is provided in the cover of the cooker to estimate the number of pounds of pressure contained therein. The cover is also furnished with a petcock which allows for the escape of air and for the free circulation and regulation of steam in the cooker.

As an article of household equipment, the pressure cooker has a two-fold advantage in that it may be used for successful canning of fruits, meats and vegetables as well as for cooking. The high temperature and moist heat that may be obtained in a pressure cooker is probably more effective than any other method of cooking, especially for such foods as cereals containing a large portion of cellulose, and meats with a tough fiber. The canning of vegetables, such as peas, beans, asparagus, etc., is made thoroughly safe and practical by the steam pressure cooker.

Saves Time.

The fact that the period of cooking with this cooker is greatly lessened is a great advantage to the housekeeper in meeting emergencies in the hasty preparation of meals. If company comes and there is only enough potatoes cooked for the immediate members of the family, it is only a matter



First Prize, Miss B. A. G., of Holloway, Out in Her Garden.

put away. Such thoughtfulness as this saves many steps.

As a farm woman I also want to tell how I plan a Sunday dinner. On Friday I bake bread; Saturday, pie and cake, and if possible cook the meat. I also cook enough potatoes to make a dish of scalloped or cream potatoes before I go to church. It is only a matter of a few minutes to get dinner on the table when I get home by adding some pickles, fruit, and making the coffee.—Mrs. M. J. D.

TESTED RECIPES.

Scotch Eggs.

Cut half a dozen hard-boiled eggs in small pieces, and add an equal amount of well-browned sausage, crumbled fine. Mix with two well-beaten eggs, salt and pepper to taste, and if this does not make the mixture of the right consistency to be easily molded, add enough thick cream to make it right. Pack closely in a well greased, one-loaf baking pan, and bake in a quick oven for twenty-minutes. Turn onto a platter, slice in half-inch slices and serve.

Sunday Salad.

Cut apples and bananas into cubes, add nut meats cut in small pieces, and mix with the following dressing: One teaspoon dry mustard; one teaspoon flour; one teaspoon salt.

Stir with little water in cup, and fill up with weak vinegar. Beat two eggs with two tablespoons of sugar, add above, and boil until thick. Upon using, thin with milk or cream.

The salad may be served individually on lettuce leaves.

Brasswork can be kept clean by rubbing with salt and vinegar.



Second Prize, the Care of the Young Porker Family Falls to Mrs. A. B., Big Rapids, Michigan.

Vines In Variety

By Grace M. Taylor

NO doubt the majority of our readers are aware of the good effects to be obtained by using climbing vines either as a shade at sunny exposures, or as a screen in various places to shut out unpleasant views or cover up ugly fences, stone walls, etc. Perhaps many of you, however, are unaware of the variety of different vines which may be used for these purposes.

Until a few years ago my own varieties were restricted to morning glories, wild cucumbers, gourds, and a few others. Since then I have become acquainted with several other varieties. Some of them are very pretty and I am going to pass on their names to you.

One of my favorites is called "The Cathedral Bell." Its botanical name is "Bobaea," and "Cups and Saucers" is another common name. This vine is an annual and grows thirty feet in a season. The flowers are of a purplish lilac color and are bell-shaped.

The "Canary Bird" vine is a very handsome annual climber. It grows to a height of twenty feet and is thickly covered with golden yellow blossoms.

Bean, (Scarlet Runner), is especially valuable as a shade because the foliage is very dense. Its red flowers blossom from July to September. This, too, is an annual.

The "Cardinal Climber" is somewhat newer than many of the other annual climbers. The foliage is fern-like, and the plants bear a great many large scarlet flowers. This vine grows from twenty to thirty feet high and grows very rapidly.

While the cypress vine is not new, there are many who are not acquainted with it. This vine has a fine feathery foliage and pretty star-shaped blossoms, but does not grow very high—usually from eight to ten feet.

The "Balsam Apple" vine is also a vine which usually grows to about ten feet. It has nice foliage and bears apples or pear-shaped fruit, which, when ripe, open up and show the seeds and blood-red interior.

The Hyacinth bean is another climber. It generally reaches a height of ten feet and bears purple and white flowers.

Moon flowers, when given rich soil to grow in, will attain a height of twenty-five feet. They bear very large white flowers.

FOR COMMUNITY RECREATION.

WHEN you are cudgelling your brain for plans for the next Community Program, the book, "The Little Country Theater," by Alfred G. Grvold, would be a great help to you. It contains accounts of theatrical adventures in rural communities and helpful plans and bibliographical comments on material for rural programs. The book is published by the Macmillan Company, New York.

MY BABIES' LAYETTE.

THE requirements for the layette differ with how much the baby is to appear in public. The first one I found adequate when I helped my mother with her resort business. The second was sufficient when the baby got his fresh air on the porch, and went very seldom.

Six dresses, two flannel petticoats,

two muslin petticoats, four nightdresses, three pairs wool stockings, four pair bootees, three wool shirts, six wool bands, two wool sacks, two coats, two caps, two cashmere squares, one blanket, one carriage robe, two pair of cotton crib blankets, one rubber sheet, four pairs rubber diapers, ten diapers one yard square, sixteen diapers 22x22 inches.

Three dresses, four flannel petticoats, one muslin petticoat, four cotton flannel petticoats, four nightdresses, three pair wool stockings, one pair bootees, two cotton flannel kimono, three wool shirts, three wool bands, one coat with hood attached, one cashmere square for blanket, one blanket, two pair of crib blankets, one rubber sheet, one pair of rubber diapers, ten diapers one yard square, sixteen diapers 22x22 inches.

The kimono style for dresses and nightgowns is the easiest to make and iron. I like the dresses made with a narrow insertion turned back on the neck and sleeves, and a narrow edge finish. By running in narrow ribbons the sleeves and neck can be easily made to fit the changing neck and arms and conceal the little shirts.

A bath or carriage pad made by doubling a yard and a half of Turkish toweling is very handy. One end is left open and a piece of rubber sheeting is fastened inside with tiny pins. Heavy lace or a crocheted edge of heavy thread is a nice finish.—Mrs. R. J. V.

THE PICTURE CONTEST.

THE prize winners for the picture contest this week were, Miss B. A. G., Hollaway, Mich.; Mrs. A. B., Big Rapids, Mich.; Mrs. J. T., Milan, Mich.; Mrs. R. E., Lapeer, Mich., and Mrs. G. F., Cadillac, Mich. The first and second prize winners are on the opposite page. The others will appear next week.

GLOOM DISPENSER FOR THE FARMER'S WIFE.

BY CORA M. HOPE.

When my hopes have all been busted,
And I'm feelin' quite disgusted,
With most everything there is on
earth that grows,
When to me life is so tryin',
Seems I just can't keep from cryin',
Then I grab the board and wash the
dirty clothes.

When all else in life's a bubble,
'Ceptin' dreary toil and trouble,
And there's fifty-seven thorns to every
rose,

When domestic storm is pendin',
Then there ain't no use contendin',
So I grab the board and wash the dirty
clothes.

When the day is dark and dreary,
And I think I'm awful weary,
And misfortune comes on every
breeze that blows,

When I feel the most like whinin',
Or like sobbin' and repinin',
I just grab the board and wash the
dirty clothes.

Then who'll say it ain't a blessin',
When the times are most distressin',
And our shoes are awful holy at the
toes,

When the whole world is a-frownin',
And our heads with thorns is
crownin',
Just to grab the board and wash the
dirty clothes.

One of the mysteries of life is why
the modern girl can't make good bread
when she is so well versed in the mat-
ter of dough.



She Knows

how to use left-over bread and make
the farm hands like it

LOTS of bread was used on her table, but lots of it also was left over. She used to throw away a lot.

But now she knows what to do with it, for one day she found a recipe which told her how to use raisins in bread pudding.

It made "a new dish" of it. Men who didn't like plain "bread pudding" were delighted with the raisins and became enthusiasts.

Now she never wastes a slice of bread. She even has to bake bread especially to make this pudding.

Try the recipe and see how good it is—with

Sun-Maid Raisins

Hear your men folks call for more, and how they compliment you. Try it now.

Get delicious Sun-Maid Seeded Raisins. Big, plump, tender, juicy raisins. Made from the finest California table-grapes. Full of flavor, energy and iron.

We've prepared a valuable book of raisin recipes which we will send to any woman free on request. All are tested so they're sure to work. Mail coupon today for this free book.

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A Co-operative Organization Comprising
14,000 Grower Members

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Sun-Maid Raisin Growers

(Dept. B-2506, Fresno, Calif.)

Please send me copy of your free book, "Recipes with Raisins."

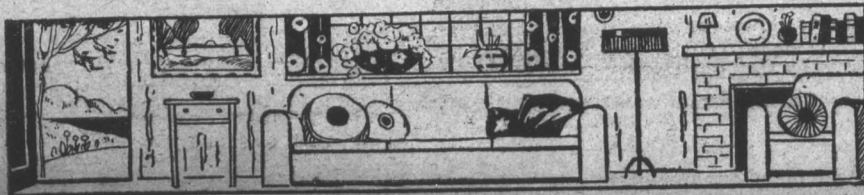
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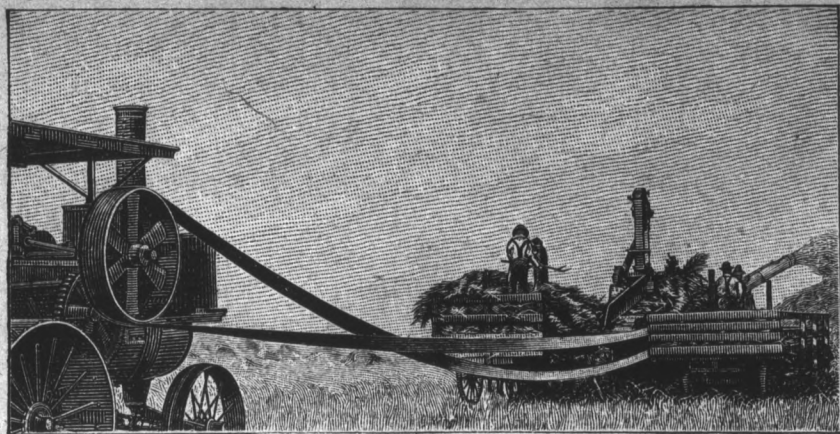
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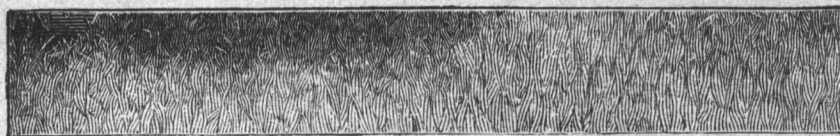


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Best for pie and bread.





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GOODYEAR
KLINGTITE BELTS

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Send the coupon below. It involves no obligations and we will tell you all about our plan.

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Please tell me, without obligations how I can profit by your sales plan.

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A Gentleman of Courage

Our Weekly Sermon—By N. A. McCune

THE career of the prophet, Jeremiah, was not unlike the experience of the late Sir Ernest Shackleton, explorer of the Antarctic. Shackleton made his last voyage but one in a specially constructed ship, the "Endurance," which was believed to be equal to any pressure of ice or any storm. But it proved otherwise. Shackleton's painful experience was to stand by, with his crew, and see the Endurance crushed like a wooden box, by the grinding jaws of the ice monster, which prolonged the agony and played with its victim, as a cat does with a mouse. Then, when the sport had been continued long enough, and the exploring ship was a twisted mass of steel beams and splintered decks, the ice separated and the wreck disappeared forever. Jeremiah's experience was worse than that. He was compelled to stand by and watch a nation disappear. In spite of all his warnings, all his pleadings with his blind countrymen, his tears, his prayers, he saw the fearful event take place—his people carried into bondage.



Does it not seem peculiar that, after the lapse of centuries, we are still reading the writings of this man? Why should his problems, the problems of a small country, and in the distant past, interest us? There is something vital and gripping about the book of Jeremiah that no one who reads it thoughtfully can escape. The times were desperate. A man with keen vision, such as the prophet had, could look ahead and see that there was no hope for the nation. Captivity, slavery, was certain. His feelings at the thought of this rent his soul. "Oh," he cries, "Oh! that my head were waters and mine eyes a fountain of tears, that I might weep day and night for the slain of the daughter of my people!" In his distress he at times had no sympathizers. No one else believed that conditions were so bad. No, very likely signs were hung out, "business as usual," "come in without knocking, and go out the same way," "the devil lived in heaven until he began knocking, now see where he is," and the like.

THE critic, the prophet of doom is never a pleasant neighbor, but sometimes he is the most sane man in the community. In 1910 and 1912, certain travelers in Europe saw the writing on the sky. They said, "there is war brewing. Europe is a powder mill, some day it is going to blow up." But the rest of the world said, "Oh, pshaw! Just a case of bad nerves. Go to a sanitarium and rest up. Put away your blue goggles."

He was a gentle and timid man. The anger that blazed at times seemed to come from a strange source. "There is no wrath as terrible as the 'wrath of the Lamb,' and Jeremiah's wrath was of that type." But through it all, he felt the hand of God. He felt himself to be pushed on, led on, perhaps driven, to do his particular work. He was picked, so he believed, for his mission. And his mission was a fearful one. It was no less than to warn his people of impending destruction. But is this sense of divine compulsion possible to the average man? There can be no doubt but that it is. The man you meet on the corner, the stenographer on her way to the office, was meant for some worthful mission, if they but knew it. Otherwise there is no moral government in the world. And once one feels this, it gives his

work a new and powerful meaning. Some of the most important work in the world is the humblest work. Every time you drive to town, perhaps, you cross the railroad, and up in the tower sits the gatekeeper. No one ever writes poems about him, or sends him roses, or writes about him in the Who's Who column, but his work is exceedingly important. More than once you might have been killed, had you not been held up by his signals. Now and then such a person in some such humble work feels that he is cooperating with God for the welfare of mankind. He says that his work is all-important, and he can do it as no one else can.

THIS prophet has been compared to Christ. He resembled Christ in many ways, and that is an attainment within reach of every son of the race. Once a missionary went into a remote section of China. There he gathered together a group of natives and began to tell them about Christ, the one who loved all mankind, taught them and died for them. When he had finished, an old Chinaman rose and said, "We know that man. He lived here a good many years ago. He came here during the time of the plague and when everyone else deserted us, he stayed and saved us from death, but lost his own life. Come with me and I will take you to his grave." And he led the way out of the gates of the city and came to the grave of a young Oxford missionary, who had come there and had spoken to the people in terms of unselfish service.

Before me lies a new book, "Wonders of Missions," by Caroline Mason. It tells of many a modern Jeremiah. After reading such a book one feels proud to belong to the human race. He feels taller and bigger, when he recollects that he, too, is a brother of these heroes. There is a short chapter on James Chalmers, "The Great Heart of the New Guinea." New Guinea is an island near Australia, 1,400 miles long. Robert Louis Stevenson, the author, did not like missionaries as a general thing, but he was completely won by Chalmers. He said of him, "He's as big as a church." And at another time he said, "Oh, Chalmers, if I had met you when I was a boy and a bachelor, how different my life would have been!" This man was so in love with life that he scorned the stale ways of civilization and lived with cannibals, so that he might give them the word of life, and lead them in new paths of living. And he was killed by the savages he had come to save. But, as the governor of New Guinea said, it was probably the death that Chalmers would have preferred, above all others. He gave his life for the people he loved. Death is a small incident to such a man, for he has within himself life that will not die. He belongs to the universe, the imperishable, the undying, the everlasting. He is more enduring than the mountains that tower over him. I am just referring to Chalmers to remind my readers that the spirit of Jeremiah is not a thing past and gone. It has been revived and lives today. Anyone may have it. The spirit of moral courage does not pass with passing styles. Under a thousand different circumstances, it lives on.

SUNDAY SCHOOL LESSON FOR JUNE 3.

SUBJECT:—Jeremiah, the Prophet of Courage, Jer. 1:1-10; 7:1-15; 20:1-6; 21:21; 32; 35:1-19; 36; 37:11-28; 39:11,12; 42:1-11; 43:4-10.

GOLDEN TEXT:—Watch ye, stand fast in the faith, quit you like men, be strong. 1 Cor. 16:13.



HOUSEHOLD SERVICE

I HAVE here on my desk several queries which have no name and address on them, only the initials or some fictitious name. I am unable to answer many of these through this service column, because they are not of general interest. If you will kindly forward your name and address, a prompt reply will be given to your question. All letters are held strictly confidential, and only the initials are printed.—Martha Cole.

CAKE-MAKING DIFFICULTIES.

I have just begun to cook, and have a great deal of trouble with my cakes. They are either heavy, or fall, or will crack open. Can you help me?—Mrs. O. R.

Perhaps you do not follow the recipe closely enough, using all the measurements level. Heavy fallen cakes are caused by too slow an oven, using too much sugar or shortening, or using too little flour. If the cake is moved in or taken from the oven before it is thoroughly baked, it will usually fall. A cake will crack when it contains too much flour or when the oven is so hot that the outside bakes before the center can raise.

TO REPAIR THE OIL STOVE BURNERS.

PERHAPS this will help Mrs. H. about putting in her oil stove burners. I always had trouble with mine until recently. I bought two new burners, thinking the old ones were worn out. The wick always seemed to stick on the opposite side of the burner, so I placed the wick on a round piece of wood and hammered it all around, especially at the bottom and middle. If you will notice, the middle sometimes bulges and the bottom is thick. After doing this, I found my wick slipped into the burner easily and turned up and down as well as when it was new. I can now use my discarded burners. I boiled the burners once in a while in the same way as oil lamp burners.—Mrs. R.

ICE CREAM SAUCE.

Can you tell me how to prepare chocolate sauce for ice cream, and also how to make caramel ice cream?—Mrs. B. A.

For chocolate sauce to be served with ice cream, put one pound of light brown sugar into a saucepan with one quarter pint of milk, two ounces of chocolate, grated, and one ounce of butter. Boil together until it forms a soft ball when put in cold water. Take from the stove and flavor with vanilla.

To make caramel ice cream, put one quart of milk in a double boiler and when hot add one tablespoonful of cornstarch which has been moistened with milk, yolks of four beaten eggs, and one-half cup of sugar. Boil until a custard is formed. Scorch one cup of maple molasses or one-half pound of maple sugar. Add a little water to it, then add to the custard. When cool, add one pint of cream and freeze.

TO WASH LEATHER GLOVES.

Recently I purchased a pair of leather gloves which I was told could be washed. Can you tell me how to wash them?—Mrs. T. R.

Leather gloves of the washable kind should be put on the hands, and washed in cool soapy water. Rub the soiled parts with a cloth. If very soiled, put powder on the cloth, but do not use a brush as it will roughen the leather. Rinse the gloves in cool water which

is slightly soapy, if the water is hard. Stretch them very little, but blow them full of air to hold their shape and dry in warm, never hot, air.

TO CAN HORSE RADISH.

Can you tell me what makes my canned horseradish taste flat?—Mrs. A. E. N.

Perhaps you use too strong a vinegar when canning. This would tend to weaken and kill the flavor of the horseradish.

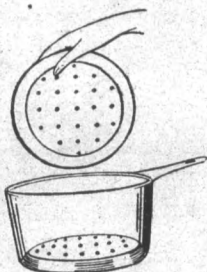
LAUNDERING PONGEE.

Will you please tell me how to launder pongee?—Mrs. R. M.

Wash the material in warm soft water with a mild cleansing soap. Rinse and hang on the line until perfectly dry. Pongee should be ironed when perfectly dry, or thoroughly damp. It is usually considered best to have the material dry, as it is not so apt to streak when ironed. Sprinkling it will make spots which only re-laundering will remove.

A FALSE BOTTOM FOR KETTLE.

THERE are numerous small devices that one can invent which will help one through many of the problems of housekeeping. I have found this one valuable.



Take a shallow tin of a suitable size to fit the kettle. With a hammer and round nail, punch it full of holes, with the roughness on the inside. This will let the water have free play through it. When about to cook a piece of meat or some vegetables, insert this false bottom first and there will be no danger of the meat sticking to the bottom, or being tainted if it should happen to boil dry.—Maggie A. Cromlich.

FRESH COCOANUT CAKE.

I JUST received the Michigan Farmer today. I am a long ways from home, but I enjoy reading it just the same. I have just recently learned how to make a cocoanut cake of fresh cocoanut. We all think it surpasses any cake we have ever eaten, and I would like to have the readers try it.

White Cake.

Cream one-half cup of butter and one and one-half cups of sugar. Add one cup of sweet milk, two and one-half cups of sifted flour, two level teaspoonfuls of baking powder. Fold in the well-beaten whites of eggs. Bake in layers.

Frosting.

Two cups of sugar, and milk from one cocoanut. Boil until it hairs and stir in the well-beaten whites of two eggs. Beat with the egg beater until cool. Prepare cocoanut, peel the brown from the cocoanut and grate with fine grater.

Spread layers with frosting, sprinkle thick with cocoanut while frosting is still wet.

I always make what we call "float" to serve with my cake. Beat the yolks of the eggs, and add three quarters of a cup of sugar, one tablespoonful of flour and one quart of milk. Cook in a double boiler and when cool add vanilla. I hope if any of you try this you will enjoy it as much as we have.

—Mrs. F. B., Phoenix, Arizona.

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Michigan Farmer Pattern Service

size requires $3\frac{1}{4}$ yards of 40-inch material. Price 12c.

No. 4375—Child's Play Dress. Cut in four sizes, 2, 4, 6 and 8 years. A four-year size requires $2\frac{1}{4}$ yards of 36-inch material. Price 12c.

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No. 4088—Girls' Dress. Cut in four sizes, 8, 10, 12 and 14 years. A 12-year

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GREEN LAWN CHICKS SENT INSURED parcel post prepaid. Barred Rock, White Rock, Rhode Island Red and Black Minorcas, \$16.00 per 100. Brown Leghorns, English White Leghorns or Anconas, \$14.00 per 100. Extra Select \$2.00 per 100 extra. Heavy Broilers, \$14.00 per 100. Odds and Ends, \$13.00 per 100. 5% discount in 500 or 1000 lots. All varieties 17c each in less than 100 lots. Our 13th year producing high grade chicks that please. Our method of shipping positively prevents chilling or crowding and we guarantee 100% live delivery. May, June, July 1c per chick less. Order now and state when you wish chicks sent. A saving to cash customers. Deduct 5% if full cash is sent with order. Reference, Fenton State Bank. Green Lawn Poultry Farm, Route 3, Fenton, Mich. Gus Hecht, Prop.

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You can now send your order for Chicks in 11 breeds of the Pure Bred Practical Poultry that is making egg records in the hands of our customers on their own farms. If you own stock that is guaranteed, stock that will make you 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 of the best practical stock you can buy.

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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 Price List.

CRESCENT EGG COMPANY
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State Approved S. C. W. Leghorn CHIX
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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.

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After May 15th
Barron Type W. Leg. B. Rocks, S. O. Reds. Pedigreed chicks from M. A. C. cockerel mating. Utility grade from flocks that laid 50 to 60% past winter. Pullets laid at 4 mos., 20 days. If you want the biggest value for your chick money send for instructive catalog. Bank Ref. MICHIGAN HATCHERY & POULTRY FARMS, Box C, Holland, Mich.

Standard Chicks Satisfy!

S. C. English White and S. C. Brown Leghorn Chicks. Vigorous, Healthy, Early Maturing Chicks, at wholesale prices. We satisfy our customers, 100 per cent live delivery. Postpaid. Catalog free.

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Baby Chicks \$12.00 per 100 and up
Hatching eggs, \$1.50 per setting to \$15.00 per 100. We are listing 17 varieties of pure bred fowls; Chickens, Geese, Ducks & Guinea, also breeding stock. Send for prices and circular. Booking now for early delivery. CLINTON HATCHERY & POULTRY FARMS, Wilmington, Ohio.

RHODE ISLAND WHITES
win over all breeds at the egg laying contest. 30 eggs \$5; 50 \$8; 100 \$15 order from this ad. Some chicks H. H. JUMP, 175 Prospect Blvd., Jackson, Mich



What the Postman Brought

Some Merry Letters from Merry Circers

Dear Uncle Frank:

The contest was so interesting this time I thought I'd try it. Why, it was as easy as pie.

I have just read some of the ways the boys and girls earn money. I guess I'll try some of them, they sound pretty good.

Last year I planted some corn and when it got about two feet high our cow, Jennie, came and ate it off. Now, wasn't that just mean of her? I didn't care very much, because papa gave me ten cents for it.—Good-bye, your niece, Margaret Althea Fish, Manchester, Mich., R. 4.

I suppose your cow thought she would get the corn anyhow, so she



Martha Brewer's Mother Feeding the Family Pet.

would save you the trouble of harvesting it. It is good you got a little something for it, anyhow.

Dear Uncle Frank:

I have read the letters in the Boys' and Girls' Department for ever so long and have started to write about ten letters for that department, but they have all found the waste basket here at home before they reached yours.

I like outdoor sports, such as playing base ball, racing, swimming and riding a bicycle real well. I fell off from a bicycle a week ago and skinned my knee very badly.

Well, I will have to hang my close on this line. Your niece, Mable Van Blarcom, Vermontville, Mich.

As this one escaped your basket, I believe it is entitled to escape mine. It's fine you like outdoor sports.

Dear Uncle Frank:

Or should I say, "Horrid Old Waste Paper Basket?" Well, we will see. I wrote a letter once before but as it was not printed I will have to write this two-in-one.

I can't say that I like the farm nor can I say that I dislike it. It is all right in the summer, but in the winter—Boo!

I have no brothers or sisters to bother me, or for me to bother, so I get lonesome once in a while. I live with my mother and my uncle, mother's brother. My father died when I was seven years old.

Now that the bobbed hair and knicker subjects have been discussed in nearly all the letters; can't we discuss the most profitable kind of pets to raise on a farm? Perhaps it is chickens, rabbits, cats, or dogs. Let's hear about it.

Well, I think it is time good little boys and girls were in bed, so good-night, Uncle Frank, and Merry Circers. Sincerely, Francis M. Hedden, Imlay City, Mich., R. 1.

Too bad you don't like the farm in the winter. In winter, it's Boo! most anywhere. If you had someone to bother or someone to bother you, I'm sure you'd like it better.

Dear Uncle Frank:

You dear little sole, how you is? Busy reading letters, eh? Well, don't read too many so you get near-sighted.

Some weather we are having. I do not live in this state, so you see I am not used to the cold. I came from California about two weeks ago. The weather there is quite rainy at present. But it is a beautiful country. We lived close to the shore. It sure is fun going swimming there. We are just traveling from town to town. We

want to visit the Great Lakes and camp near Lake Michigan. So maybe I will see some of the cousins. My father bought a Michigan Farmer paper. That is how it comes that I am writing to you.

I read Mildred Fairbanks' letter. Well, I am fourteen years old, five feet six inches short, and weigh 210 pounds. Can you beat it? I am not proud of it, I'll tell the world.

When we get back home will write you again and give you my address. Betty Arnold.

How is you? Quite heavy, at least, I should say. You have a weighty question to solve. You are having quite a trip. I hope you will like Michigan so well you will want to stay.

Dear Uncle Frank:

Thanks ever so much for the button and membership card.

I would have written to you before but we have been entertaining an unwelcome visitor named scarlet fever. We couldn't go to school "ner nothin'."

I was going to send in for the motto contest, "A Winner Never Quits and a Quitter Never Wins," but it was too late before I could. I am going to try the ad contest, though. Well, so-long. E. Lucinda M. Wingate, Manchester, Mich., R. 5.

Your unwelcome visitor is the kind that makes you stay right close by it. Your motto is a good one.

Dear Uncle Frank:

I received my Merry Circle button and membership card some time ago, and was glad that I could win something.

I am fourteen years old, and in the eighth grade at school. It will soon be time for examination. I sure hope to pass.

You spoke about suggesting some

other subject, is it nice for girls to play base ball with boys? I like to play, but some of my girl friends do not think it is nice.

I will close for this time. Your niece, Eva Bittell, Corunna, Mich., R. 1.

A good subject. Let's hear from both girls and boys on this matter. Base ball is a great game, but should girls play with boys, that is the question.

Dear Uncle Frank:

Here is a challenge for anyone of my own age. I think I can even beat Mildred Fairbanks.

I am fourteen years old, five feet four inches tall and weigh two hundred pounds.

I live on a farm of 180 acres. I am in the eighth grade at school. Our school will be out the twenty-second of this month.

Hoping I win a prize, your would-be niece, Ada Tabberer, Kingsley, Mich.

Yes, I believe you do beat Mildred.

You'll have to take some reducing stunts if you keep on growing.

Dear Uncle Frank:

I received my membership card and pin and wish to thank you very much. I am trying to live up to the rules on the card.

I would like to say a word or two to the boys and girls, that if they have a chance to get in any club work they should. Last year I joined the handicraft club and received second place out of a class of boys. This year I received first place out of a class of boys, and I have a chance to go to Lansing.

Well, my letter is getting long so I will close. Helen McKinlay, Newaygo, Mich., R. 4.

Good for you. You must be a handy girl to have around the house. I bet you can hit the nail on the head more often than some of the boys.

Says Sam: The Golden Rule is all there is to good manners.

"Oh!--O--O Mother!"

SURPRISING results have been narrated after that breathless gasp, "Oh-o-o-Mother." Possibly it's just the pure gasp of astonishment, or pleasure, in one's friends or one's self. Again, it might be a call to heed something important. In this case it is to heed something important—a canning club.

To begin with, we use the cold-pack method because it is easier, quicker, and keeps the flavor and the shape better. It also makes a more preferable appearing finished product.

We started our club on June 24, 1922, and called it the Milford Canning Club. We worked all summer, once a week until September 20. We brought our own pot-luck lunches and worked from 9:00 a. m. until about 3:00 p. m.

And in return we have our knowledge of canning which is invaluable if one expects to keep a good pantry.

I would like to explain in full details just what comprises the cold-pack method, but space is limited and all those points can be secured from the farm bureau.

For an inexperienced club of four months we have taken nine premiums

at the State Fair, competing with experienced housewives, some \$17 in money at our own Milford Fair, and



The Milford Canning Club, who Discovered that they Can Can.

we have sold about \$25 worth outside the club.

Our primary expenses for equipment and organization was advanced by the father of one of our members. To return that advancement we gave a lawn social and a bake sale.

To those girls who think, "Canning in hot weather must be awful," just organize a club and see.—Eleanor Albert, Milford, Michigan.



Michigan Club Members' Exhibit for Smithsonian Institute at Washington.

How I'm Going to Help

By the Prize Winners

JUDGING from the letters I received in the house besides papa and mamma. So there is lots to do. This spring I am going to help clean house, and I also will do dishes, sweep, make beds, help mother cook, and help take care of my baby brother. I am going to keep my own room cleaned up so mamma won't have to do it for me. I can bake a little and will help mamma bake and cook. I can wring clothes and turn the washing machine when mamma washes.

By Ida Cryderman, Twining, Michigan.

Besides the usual conglomeration of washing dishes, running errands, hoeing, weeding, milking, picking berries, helping out the neighbors in the busy times, and the seventy-seven other tasks which a farm girl can always find lying around, I plan, this summer, to have a garden.

And such a garden! If it will only be so kind as to grow as I planned, "what a garden it will be." I intend to take the usual family garden under my wing and shall make it rather larger than usual. With good care, I figure my garden ought to supply the family table with vegetables throughout the summer and still leave quite a surplus for canning and for sale.

I intend to do the canning myself so all that the rest of the members of the "House of Cryderman" will have to do will be to look pleasant and eat the vegetables.

The money received from the sale of the surplus vegetables, together with that that I may earn in various other ways, will be spent for clothing and to help pay my school expenses and so take some of the burden of expenses off the shoulders of "our father who art on the farm."

By Esther Card, Grant, Mich., R. 1.

I am a little girl nine years old and cannot do as much as some of the older children. But here are some of the things I do to help my mother and father: Bake pancakes, set the table, wash dishes, sweep and dust, peel potatoes, make my bed, and sometimes the other beds, iron, make cakes, gather eggs, carry in wood. When it is necessary I put on my knickers and milk a cow, but that takes me quite a while.

I can get breakfast, dinner or supper alone. And last summer I picked and canned five quarts of plums one day, so I know I can help can fruit. Papa is going to have an acre of pickles and I am going to help pick them.

I do not do all these things every day, only when my parents need me to help. Mamma says for me to be a good girl and not be cross, that helps the most of all. Of course, there are lots more little things I am going to do, too many to write about, like sewing on buttons and running errands.

By Elizabeth Marcis, North Branch, Michigan.

This summer father is going to give me an acre of land. In this I am going to plant some green beans, lettuce, radishes, celery, onions and some other vegetables and sell them. With the money that I get I am going to help mother.

Mother has been sick lately and the doctor said she needs a vacation. I am going to save all the money I get for my vegetables, and my sister is doing some fancy sewing to sell. We are going to give mother all the money so she can have a better time on her vacation. Mother will be away for a month and us girls will do the housework while she is away.

By Irene Baxter, Montague, Michigan.

This summer I think I shall help my mother at home. We have five children and my mother's grandmother

ma. So there is lots to do. This spring I am going to help clean house, and I also will do dishes, sweep, make beds, help mother cook, and help take care of my baby brother. I am going to keep my own room cleaned up so mamma won't have to do it for me. I can bake a little and will help mamma bake and cook. I can wring clothes and turn the washing machine when mamma washes.

I can also help out of doors. I will help my brother get the cows, and watch the cows for papa. I can cut the grass in the yard when it gets too tall; we have a lawn mower. I am going to help pick fruit when it gets

Careless Contest

THE City of Detroit has recently had a Safety Week in which it endeavored to show the results of carelessness. We in the Merry Circle, can also have a Safety Week by having a contest on carelessness. Please write, in two hundred words or less, on "The Worst Thing I Have Seen Caused by Carelessness." You have seen accidents or the results of accidents, or perhaps you have seen other things carelessness has caused. Tell us about them.

For the ten best papers we will give the usual prizes. The writers of all good papers who do not have Merry Circle pins and membership cards, will get them. This contest closes June 7. Send your papers to Uncle Frank, Michigan Farmer, Detroit, Michigan.

ripe. I can pit the cherries for mamma, and help her peel the fruit or take the pits out to get ready to can.

I can also iron the clothes when they are dry and starched. I can get flowers for my sick grandma, and do many other things about the home, where I will be this summer.

By Nora Batchelder, Bitely, Michigan.

Now is the time of year when we need to pitch in and help. I am going to be more saving of the expensive things. Help with the chores, do housework, sew, mend, wash, go on errands, and smile every little while to help the others to smile and feel happy. I must not leave out about working in the garden, either. I am going to dig worms to sell to campers that come to our place. I have got some seeds so I am going to sow them and have a garden.

By Lillian Downes, Rockford,

I am going to help with the garden by keeping the weeds pulled, and by hoeing, and, of course, first of all I will help to plant the seeds.

My mother also wants me to help to care for the flowers. I will take great pride in doing this. I will water them every day and keep them hoed.

But the most important of all the things that I am going to do is to attend to the chickens. Mother expects to raise two hundred, and I must help to raise them. She has offered me a reward of five dollars if I take good care of them.

OTHER PRIZE WINNERS.

The following also won prizes, Michigan Farmer maps:

Eunice Bowers, Shelby, Mich., R. 4.
Florence Smigelski, Cathro, Mich.
Christine Endres, Mt. Pleasant, Mich., R. 4.
Gertrude Herman, Caledonia, Mich.

Baby Chicks with a Record!

Picturesque Strain Jersey Black Giants won seventy-two ribbons at six of the leading shows—more than were awarded to any other breeder in the country. When you buy from us you get strong, fast-growing chicks which are backed by a poultry farm of forty-one years' standing and known everywhere for its reliability.

PICTURESQUE STRAIN JERSEY BLACK GIANTS

are known in almost every state in the Union. We guarantee 100% live arrival and ship parcel post, prepaid. Order direct from this advertisement—shipping dates: Tuesday and Thursdays of each week.
25 Chicks \$ 9.00
50 Chicks 18.00
100 Chicks 35.00
500 Chicks or more, per 100 30.00
Hatching Eggs \$3.50 per Setting, \$15.00 per 100



PICTURESQUE POULTRY FARM

TRENTON JUNCTION, N.J. Box 70.



EGG BRED Baby Chicks DOWN GOES THE PRICE OF RELIABLE CHICKS

Special bargains for June shipment, chicks almost at cost price, from our greatest English Strain White Leghorns, and Park's Strain Barred Rocks, customers of last year state pullets started to lay at 4½ months old, order your chicks right now for winter layers when eggs are high, from prices quoted below and save money. Satisfaction guaranteed, or your money back, handsome Catalog free.

English W.L. per hundred \$10.00 English W.L. per thousand \$ 95.00
Park's Strain B.R. per hundred 13.00 Park's Strain B.R. per thousand 120.00

Reliable Hatchery & Farms

HOLLAND, MICH.

92 E. 17th. St.

EARLY MATURING Baby Chix

From the home of the pure bred egg type breed. Our early maturing June Chicks from culled flocks which have been carefully mated will make you profitable winter layers.

PRICES FROM JUNE 10TH TO JULY 15TH

	100	500	1000
Barred Plymouth Rocks	\$11.00	\$50.00	\$100.00
Rhode Island Reds	11.00	50.00	100.00
Buff Orpingtons	13.00	60.00	120.00
White Plymouth Rocks	13.00	60.00	120.00
White Wyandottes	9.00	40.00	80.00
White Leghorns			

EXTRA SELECT

	100	500	1000
Barred Plymouth Rocks	\$13.00	\$60.00	\$120.00
Rhode Island Reds	13.00	60.00	120.00

Our large capacity will enable us to fill your order promptly. 100% live delivery guaranteed. Order direct from this advertisement and send full remittance to save time.

THE MILLAN HATCHERY, MILLAN, MICHIGAN

"BRED TO LAY" BABY CHICKS

JUNE PRICES

S. C. W., Br. Leg. and S. C. Mottled Anconas. June 4 to June 25 delivery. 50 chicks, \$5.00; 100 chicks, \$10.00; 500 chicks, \$50.00; 1,000 chicks, \$100.00. Mixed, 7c each. The best Utility Chicks that money can buy, hatched from large, deep bodied birds with large lopped combs. Wonderful winter layers and descendants from Penna. Poultry Farm's egg laying contest winners, notably Lady Victory, 304 eggs and Keystone Maid, 306 eggs. Prices: 25, \$3.00; 50, \$5.50; 100, \$10.00; 500, \$47.50; 1,000, \$90.00. Full count, and absolute satisfaction. Order at once. Can make immediate delivery. Also hundreds of 8 wk. pullets ready for shipment. Catalogue free. Reference.

TOWNLIN POULTRY FARM,

Dept M. R. 1
ZEELAND, MICHIGAN

Egg Bred White Leghorn Chicks

From our famous winterlayer English White Leghorns. Large, vigorous birds of fine utility type. Wonderful layers—the result of many years of breeding for increased production of large, white eggs. Our grade A chicks are from these selected females mated with pedigreed sires bred from 200 to 300 egg dams and descendants from Penna. Poultry Farm's egg laying contest winners, notably Lady Victory, 304 eggs and Keystone Maid, 306 eggs. Prices: 25, \$3.00; 50, \$5.50; 100, \$10.00; 500, \$47.50; 1,000, \$90.00. Full count, and absolute satisfaction. Order at once. Can make immediate delivery. Also hundreds of 8 wk. pullets ready for shipment. Catalogue free. Reference.

PATER'S POULTRY FARM, R. 4 Hudsonville, Mich.

PRICES CUT ON JUNE CHICKS



From selected, heavy-laying, vigorous hens. White and Brown Leghorns, Anconas, 50, \$5.50; 100, \$10.00; 500, \$45.00. Barred Rocks, Rhode Island Reds, 50, \$6.75; 100, \$13.00; 500, \$60.00. Extra Select \$1.00 per 100 higher. Mixed Chicks, 50, \$4.00; 100, \$8.00; 500, \$40.00. 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.

Windstrom Farm & Hatcheries,

Box H-6, ZEELAND, MICHIGAN

YOUNG ROOSTERS WANTED

\$2.00 to \$3.00 can be had for each young rooster you can spare. There is a poultry buyer near you who will gladly pay you these prices or more. All you have to do is to write the breed you have, being sure to state how many young roosters you can spare in first letter. Address it to GEORGE BEUOY, POULTRY EXPERT R. R. No. 40 Cedarvale, Kansas

Washtenaw Hatchery

JUNE PRICES. Hatches Mondays and Tuesdays. Barred Rocks, 10, \$1.50; 50, \$7.50; 100, \$13.00; 500, \$60.00. White Wyandottes, 10, \$1.50; 50, \$7.50; 100, \$13.00; 500, \$60.00. Buff Orpingtons, 10, \$1.50; 50, \$7.50; 100, \$13.00; 500, \$60.00. S. C. W. Leghorns, 10, \$1.50; 50, \$7.50; 100, \$13.00; 500, \$60.00. Add 50c for half and quarter hundreds. Postpaid, full live delivery guaranteed. Our flocks are carefully selected and bred for high egg production. Order from this ad.

Reference, Farmer's & Mechanic's Bank.
WASHTENAW HATCHERY,
Ann Arbor, Mich.

Big Value Baby Chicks

Are guaranteed to Live! Easy to raise, husky, healthy, vigorous. Write today for free catalog showing many breeds in full colors.

THESE PRICES EFFECTIVE JUNE 11th

White Leghorns	10	White Rocks	10
Brown Leghorns	10	Buff Rocks	10
Buff Leghorns	10	Buff Orpingtons	10
Anconas	10	Black Minorcas	10
S. or R.O. R.I. Reds	10	Heavy Broilers	10
Barred Rocks	10	Light Broilers	10
White Wyandottes	10		

5% Discount on all orders of 500 or more.

OHLS POULTRY YARDS and HATCHERY

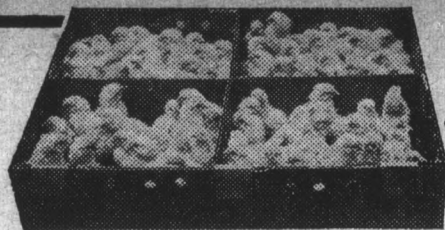
Box G MARION, OHIO

BARRED ROCK CHICKS

We hatch only Barred Rock Chicks all from selected stock, shipped by insured Parcel Post prepaid direct to your door at \$14.00 per hundred. We guarantee 100% live delivery. CIRCULAR and PRICE LIST on REQUEST

THE KAZOO HATCHERY CO. R. 3 Kalamazoo, Mich

**Ready for You
at Special
Bargain
Prices**



**Absolutely the Finest Quality
Baby Chicks**

English S. C. White Leghorns
(Snowden's Highest Egg Pedigreed Blood Lines)
Imported Direct from England.

Mated to 250-300 Egg Pedigreed Sires

Our Famous Winter Laying Strains. The large deep bodied hens with large lopped combs. Real money makers. \$12.00 per 100; \$55.00 per 500; \$100 per 1,000.

Order Direct From This Ad.

Save time and money. Thousands of chicks ready for shipment May 28 and every Monday following in June and July. 100% live delivery guaranteed, postpaid. Satisfaction guaranteed. Cash with order or C. O. D. Mail or wire your order. Act quick—Now.

FRANK A. VAN BREE, Monarch Poultry Farms, Box 32, Zeeland, Mich.

S. C. Anconas
Sheppard's 331 Egg Strain
Large husky chicks, fine specimens of real heavy laying stock. \$12.00 per 100; \$55.00 per 500; \$100 per 1,000. **FREE** Beautiful large illustrated catalog free. Send for prices on mature stock and 8 to 12 weeks old pullets.



Egg Bred BABY CHICKS

The Best Laying Strains on Earth

Barron English White Leghorns, Brown Leghorns, and Anconas. During 1923 we will sell 30,000 strong, healthy, super-hatched chicks weekly, bred from strains backed by 18 years of actual egg breeding on our Farms. The enormous output of these quality chicks enables us to sell these money-makers at a price unequalled. Our flocks are culled out annually by poultry experts and are mated to large, vigorous 260-288 egg Pedigreed Males from Funk Farm direct.

Special Star Matings
English White Leghorns

\$14.00 per 100
65.00 per 500
120.00 per 1000

Extra Selected Matings
English White Leghorns
Brown Leghorns and Anconas

\$11.50 per 100
55.00 per 500
105.00 per 1000

Selected Matings
English White Leghorns
Brown Leghorns and Anconas

\$10.00 per 100
\$47.50 per 500
Broiler Chicks \$7.50 per 100

The special Star matings are pedigreed sired Hens mated to males direct from 260 to 288 egg Hens. The extra selected matings are closely culled flocks far superior to ordinary Leghorns and Anconas, mated to good egg type male birds. Every Shipment is sent by prepaid Parcel Post, and we guarantee 100% live delivery. Order direct from this advertisement or send for our large illustrated catalogue.

Wingarden Hatchery, Box M, Zeeland, Michigan

DUNDEE CHICKS

PRICE LIST FOR JUNE

	100	500	1000
Barred Plymouth Rocks	\$12.00	\$55.00	\$110.00
R. I. Reds	12.00	55.00	110.00
Anconas	10.00	45.00	90.00
White Leghorns	10.00	45.00	90.00

All first class pure bred stock. 100% safe arrival guaranteed. Prices prepaid. Order at once and have your chicks delivered the first part of June. Order direct from this advertisement.

THE DUNDEE HATCHERY, Box A. Dundee, Mich.

REDUCED PRICES-- CHICKS \$9.00 PER 100.

All hatched from select, heavy-laying, pure-bred flocks on free range. Postpaid and 97% live arrival guaranteed. Prices as follows.



VARIETIES
White, Brown, and Buff Leghorns \$5.00 - \$9.50 - \$45.00
Barred Rocks, Reds, Anconas 6.50 - 12.00 - 58.00
White Rocks, Wh. Wyandottes, B. Minorcas White and Buff Orpingtons 7.50 - 14.00 - 68.00
Broiler Chicks, all varieties mixed 9.00 per 100 straight.
1,000 orders at same rate as 500 orders. Our capacity and immense production of Chicks will enable us to ship your orders on short notice. Remit in full by Post-Office or Express money order, bank draft or certified check. Bank Reference. You take no chances. Order right from this advertisement and save time.

WOLF HATCHING & BREEDING CO., Dept. 106, Gibsonburg, Ohio

BUY HUBER'S RELIABLE CHICKS

Special Summer Prices--Our 14th Year. Don't fail to take advantage of these prices, for they will include our Number One Grade Chicks. Our Stock is Bred for Quality and Heavy Egg Production. They will be money makers. Will ship any number of chicks from 25 on up. S. C. White, - S. C. Brown Leghorns, - S. C. Anconas at 10c. - R. C. and S. C. Reds, and Barred Rocks at 12c. - S. C. Buff Orpingtons and White Wyandottes at 15c. - S. C. Black Minorcas at 13c. - S. C. Buff Minorcas at 20c. Odds and Ends at 9c. 40,000 Chicks Every Week. Order Direct From This Ad. Attractive Catalog Free.



Huber's Reliable Hatchery, East High St., Fostoria, Ohio

BABY CHICKS Postpaid to your Door, \$11 per 100 Up

FROM HOGAN TESTED, FREE RANGE HEAVY LAYING FLOCKS. ALL VARIETIES.
WHITE, BROWN and BUFF LEGHORNS and ANCONAS \$13.00
BARRED ROCKS and R. I. REDS \$14.00
WHITE WYANDOTTES, WHITE ROCKS, BUFF ROCKS \$15.00
BLACK MINORCAS, BUFF ORPINGTONS \$16.00
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.



BIDDY PRODUCES TWENTY-THREE BILLION EGGS.

ACCORDING to reports from the United States Department of Agriculture, the hens of the country have produced over twenty-three billion eggs. In other words, the farmers' wives had one billion, sixty-two million dozen eggs to sell in 1922. However, all these were not sold, as one hundred thirteen million dozen were "set" for the production of chickens. The entire 1922 production of the American hen was valued at five hundred million dollars.

STATE LAW HELPS HONEY PRODUCERS.

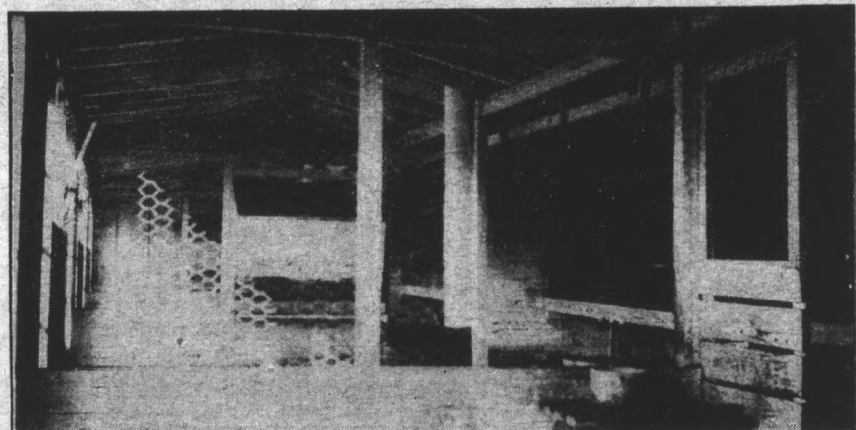
THE passage of the law favorable to bee-keepers leads many of the bee men to believe that honey produc-

tion will become one of the major agricultural activities of the state. This law is to perform three great functions for Michigan apiaries. The first is, suppression of American and European foul brood; the second, colony inspection to prevent disease infestation, and the third, the protection of Michigan honey from inferior imported products.

CONTROLLING LICE.

I have three incubators which were set in shed which had hen lice in it. Would like to know what I can do to get rid of them. I have burned sulphur in them without success.—Mrs. L. F.

I do not consider the burning of sulphur a sure method to rid a hen house of lice and mites. Usually a house will be free from the pests if the hens are free from lice and the roosts are protected from mites. The lice can be controlled by treating each hen with blue ointment about once in



One of the Houses in which Interlake Farm Keeps its R. I. Reds.

six months. The mites can be eradicated by painting the roosts with carbolineum about once a year. Other preventives are kerosene oil or the engine oil drained from a crank case.

In case the mites are established in the walls, and lice are around the nests, it will pay to take out all portable equipment for sunning or spraying and then soak the walls thoroughly with whitewash, or some commercial disinfectant. A barrel sprayer is very useful for such work. Small hen houses may be sprayed with a hand potato sprayer. It is necessary to send the spray dope in every crack and crevice and remove any boards around the roosting equipment that are nailed down, forming hiding places for the red mites.

TRAVERSE BEES HURT BY WINTER.

REPORTS from the Grand Traverse region indicate that the long winter has been so disastrous to bees in that county, and as a result, honey prices will likely seek a higher level. The late spring has also delayed the activities of the bees.

CHICKS DEVITALIZED.

I had 265 little chickens and about two or three days after they were hatched they began to die. I would go to the brooder house and find two or three dead on the floor. They were hatched May 11. The incubator heat went up quite high. I let them out doors when it is nice. Can you tell me what is the trouble? I have lost thirty or forty.—W. A.

When an incubator runs up too high for any length of time, it has a devitalizing effect on chicks. This is often followed by frequent deaths among the flock until those with the weakest germs are all gone. Then the balance of the flock will take a brace and a large per cent of them turn out all right. If you have only lost thirty

TURKEY WITH WARTS.
Kindly tell me what is the trouble with my Tom turkey. Last week he had worms but we cured him of that. His tail feathers all came out and his legs are stiff, and lately bunches like warts have come on his legs around the gambol. He eats good and seems to feel all right.—W. L. P.

Warts may occur on all kinds of poultry. No cure can be recommended, but they seldom are serious enough

CHICKS

Improved S. C. English type White and Brown Leghorns. \$10.00 per 100; \$50.00 per 500; extra selected \$12.00 per 100, or \$57.50 per 500. From all good profitable layers, and our selected are from our very best layers.

This is our 12th year breeding, hatching and shipping chicks, and we are offering you chicks from the very best layers at a very reasonable price.

We pay the postage up to your door and guarantee you 100% safe arrival.

Order direct from this adv. to save time, for it pays to be a little ahead of time, or write for our 32 page catalogue.

Wolverine Hatchery
ZEELAND, MICH. R. No. 2

Reduced Prices BABY CHICKS



Best Payer, Heavy Laying, Purebred Strains. Tom Barron English S. C. W. Leghorns—25, \$2.50; 50, \$5.00; 100, \$10.00; 500, \$45.00; 1000, \$90.00. Park's Strain Barred Rocks; S. C. Rhode Island Reds—25, \$3.00; 50, \$6.00; 100, \$12.00; 500, \$55.00; 1000, \$110.00. Good strong broiler chicks \$3.00 per 100. Place your order at once: avoid disappointment. Get your chicks when you want them. 100% live delivery guaranteed postpaid. Instructive catalogue free. Prices on mature stock, 8-12 weeks old pullets on request.

Brummer Frederickson, Poultry Farm
Box 20 Holland, Mich.

CHICKS

Guaranteed to Satisfy



For Shipments June 5, 12, 19 and 26
\$9.00 per 100 Postpaid
Extra selected stock \$11.00 per 100.
S.C. White and Brown Leghorns.
Our chicks are hatched right and will live. Safe arrival guaranteed.
Order direct or send for our catalogue.

OTTAWA HATCHERY & POULTRY FARM
Holland R-10 Michigan

PETERSBURG CHICKS

Reduced prices for balance of season.

English Leghorns S. S.	100	500
Anconas	\$10.00	\$45.00
R. I. Reds and Barred Rocks	10.00	45.00
	12.00	55.00

Pure bred stock, 100% safe arrival guaranteed. Order at once from this ad and get early June Chicks.
Petersburg Hatchery, Petersburg, Mich.

Whittaker's R. I. Reds ROSE AND SINGLE COMBS

Michigan's Greatest Color and Egg Strain. Bred from Winter Layers for 13 years. One customer reports flock average 54 eggs per hen for December and January. A short poultry crop this season. Better late chicks than none. Prices of chicks and eggs greatly reduced for June and July. Write for our free catalog and get your order in early.

INTERLAKES FARMS
Box 39, Lawrence, Mich.



Baby Chicks

There is no guess-work about ordering "CLOVERLEAF" chicks; you KNOW they will satisfy. Big husky chicks from closely culled flocks. Just the kind you have been looking for. Send for catalog.

Cloverleaf Poultry Yards Route 2, Zeeland, Mich.

CHICKS 10c

For June delivery Barron S.C.W. Leghorns from trap nested stock 10c. Sheppards Anconas 11c. Barred Rocks 12c each. Special price on eggs for hatching. We guarantee safe delivery and prepay all shipments. Write for our new price list with reduced prices and catalogue before you buy. A card will bring it.

BYRON CENTER POULTRY FARM
BYRON CENTER MICH.



LOOK CHICKS \$10.50 and up. From high est quality, proven layers. Can ship immediately. Barred Rocks or Reds \$14.00 per 100. Buff Orpingtons, White Rocks, White Wyandottes, Buff Rocks, \$16.00, per 100. Light Brahmas, Black Langshans, \$20.00. per 100. White, Brown, Buff, Leghorns \$12.00. per 100. Anconas \$13.00. per 100. Add 35 cents extra if less than 100 ordered. Hatching eggs. Catalog. Good Bank reference. Box 9, Beckman Hatchery, 26 E. Lyon, Grand Rapids, Mich.

SUPERIOR CHICKS

We hatch Leading Varieties Standard Bred, vigorous, heavy laying stock. Postage paid. Live arrival guaranteed. Lowest prices. Best quality. Prompt delivery. Send for our large, illustrated catalogue. Superior Poultry Co., Box S-39 Windsor, Mo.

Additional Poultry Ads. on Page 763

or forty out of 265, it will pay to give the rest the best possible attention, and maybe the losses will stop. Most of the weak chicks are gone at about the end of the second week.

If you have only a small flock it will pay to use a few hundred pounds of the commercial growing mash. They are properly mixed and contain the ingredients to make bone, blood and feathers, as well as fat. Give the chicks as much sour milk as they will drink. Also give them a grassy range where they will not be trampled by older birds.

LAME GOSLINGS.

My goslings get lame in the legs and cannot walk. If I don't put them where it is warm they are dead inside of an hour. Could you tell me the trouble, and recommend some remedy so I can cure them?—M. M.

Young goslings sometimes have what is termed "infectious articular inflammation." The only treatment of value seems to be the application of hot water to the joints. Two treatments per day, of thirty minutes each are recommended. Goslings should not spend too much time on a board floor, and should receive plenty of green feed to keep them growing rapidly.

CROP-BOUND HENS.

Can you tell me what is the matter with my hens? They will look droopy, have their crops full, and in a few days die. I feed them corn, oats and all the milk they will eat. I do not keep them shut up.—G. T.

The hens may be crop-bound as this sometimes occurs when the hens first start to range in the spring and eat quantities of grass. Some of the grass may be dry and tough and form a mat which clogs the crop. In such cases knead the crop to loosen the mass. Give the bird a tablespoonful of castor oil. Isolate such cases in a brood coop, with fresh water and no food. Sometimes the condition will improve in a few days. Sometimes it is necessary to open the crop and remove the material. Crop-bound birds usually recover if they are treated before becoming devitalized and poisoned by the spoiled material in their crops.

RAISING YOUNG TURKEYS.

Please let me know how to raise turkeys, what and how to feed them, when they hatch, and what kind of care must they have? I have not been successful with mine—they die.—S. D.

Treat the hen with blue ointment and this will keep her free from lice and prevent them from spreading to the young turkeys. The blue ointment can be purchased of your druggist and mixed with equal parts of vaseline. Place a small bit under the vent of the hen and a little under each wing. It should be thoroughly rubbed into the skin.

A good first feed for poults is ground dry bread mixed with hard-boiled egg. After the first week the pullets need fine chick scratch grain. Turkeys are seed-eating birds and do not thrive on mashes alone. Plenty of sour milk helps to prevent digestive disorders and stimulates rapid growth. Young turkeys sometimes die because of low vitality, due to a weakness in the breeding stock. Some have blackhead and others die of various digestive disorders due to the feed. Young turkeys must not be overfed and the feed and feeding places must be as clean as possible. Perform a postmortem on any turkeys that die and note the condition of the liver and other organs.

The next generation will be that of the eminent village. The son of the farmer will no longer be dazzled and destroyed by the fires of the metropolis. He will travel, but only for what he can bring back.—Vachel Lindsay.

The unscreened home swarms with danger of disease.

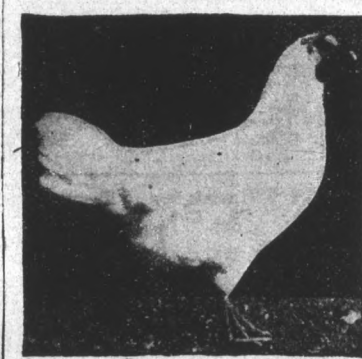
Feed Your Chicks Dickinson's Globe Chick Mash

and they will grow into more \$ \$ \$ \$ for you

Consider every baby chick a good prospect for a thrifty, egg laying hen that will produce eggs and profits for you. You can buy baby chicks from 15c to 50c each—that isn't much, but the time and opportunity you have for **Raising 95 out of Every 100** amounts to a whole lot. When you lose a chick, figure you have lost a profit-paying hen, many eggs and much profit—then you'll realize why you are wasting big opportunities when you fail to start your chicks with **Globe Chick Mash** with Dried Buttermilk—the most highly perfected chick feed on the market. At eight weeks change to **Globe Growing Mash** to make them grow rapidly. Write today for free folder: **How to Raise 95 chicks out of every 100** Ask Your Feed Dealer for **Globe Chick Mash**

The Albert Dickinson Company
Globe Feeds—Pine Tree Brand Farm Seeds
Chicago — Minneapolis

CHICKS at Reduced Prices



For June 5-12-19 and 26 delivery by prepaid parcel post, strong live chicks, guaranteed. Selected S. C. English White Leghorns and Anconas at \$3.00 per 25; \$5.00 per 50; \$9.50 per 100; \$45.00 per 500; Barred Rocks mated to Cockerels Blood Line: Hens that won the Missouri Egg Laying Contest in 1922, \$4.00 per 25; \$7.25 per 50; \$13.00 per 100; \$60.00 per 500. Broilers odds and ends \$7.00 per 100. All indications are that eggs will sell for a very good price next winter and we assure you that our Chicks will develop into heavy egg producers. Thousands of satisfied customers.

Mrs. M. Allen, May 8, 1923.
Fairgrove, Mich.
Book my order for 300 S. C. E. White Leghorn chicks. The ones I received from you last year in June and July developed into good winter egg producers.

Mrs. A. Sabourin, May 9, 1923.
Milo, Mich.
Chicks arrived in fine condition, all alive after a drive of 23 miles just after a snow storm.

Order direct from this advertisement to save time or send for our free catalog and testimonials.
Four and one-half months old Laying Sample of Stock sold by
RIVERVIEW POULTRY FARM
Route 2, Box 94 ZEELAND, MICH.

Sturdy Pure Bred Day Old Chicks



The famous Tom Barron, English, Imported White Leghorn and Sheppard's famous Anconas. Bred direct from our thoroughly culled selected stocks that are headed with pedigreed males of 250 to 280 egg strain. Carefully hatched in our large up-to-date incubators. These high grade, vigorous chicks will increase your profits. **Special bargain prices for June, July and August delivery** if you order now. 10% with order—balance ten days before shipment. 100% live delivery guaranteed. **Satisfaction guaranteed or we return your money.** Our illustrated catalog of chicks, eggs and pullets free for the asking—write for your copy tonight.

Silver Ward Hatchery, Dept. 30
Zeeland, Michigan, U. S. A.

EGG BRED BABY CHICKS GUARANTEED TO SATISFY PRICES FOR JUNE

Order direct from ad. if we can not ship chicks on date wanted we will return your money

	25	50	100	500	1000
S. C. English Type White Leg.	\$2.75	\$5.00	\$10.00	\$47.50	\$95.00
S. C. Eng. Type White Leg (extra selected)	3.00	5.75	11.50	55.00	105.00
S. C. Brown Leghorns	2.75	5.00	10.00	47.50	95.00
S. S. Brown Leghorns (extra selected)	3.00	5.75	11.50	55.00	105.00

Selected breeders, inspected, and approved and headed by large vigorous males from high record hens. 11 years of breeding and hatching experience assures you of good strong chicks that are hatched right, shipped right, and will grow up into real money-makers. Our prices are the lowest, quality considered. 100 per cent live arrival guaranteed. Parcel post paid. Free catalog.

ROYAL HATCHERY & FARMS,

R. 2. Zeeland, Mich.

MEADOW BROOK FARM

JUNE and JULY PRICES

CHICKS English White Leghorns, Brown Leghorns (American Strain) 50, \$5.50; 100, \$10.00; 500, \$45.00; 1,000, \$90.00; Barred Rocks, 50, \$6.50; 100, \$12.00; 500, \$57.00; 1,000, \$110.00; Buff Leghorns, 50, \$6.00; 100, \$11.00; 500, \$53.00; 1,000, \$100.00; White Wyandottes (Heavy Laying Flocks) 50, \$7.50; 100, \$14.00. 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 DePree, Proprietor, Route 1 M. Holland Mich. Member Mich. B. C. A.



Shoo-Fly

THE ANIMALS' FRIEND



Good-bye to Flies

Flies and other insects go elsewhere for their dirty work when you spray your stock with "Shoo-Fly." They can't stand "Shoo-Fly" any more than stock can stand them. Leading dairymen everywhere who have used "Shoo-Fly" for 38 years say cows sprayed with "Shoo-Fly" in fly season give one-third more milk. Cows won't hold back their milk when they're safe from pestering insect tormentors. Not only that, but "Shoo-Fly" is antiseptic and helps heal cuts and sores. It aids materially in keeping down lice and mites in poultry houses. It is harmless to man or beast.

If your dealer can't supply you, send \$1.50 now and we will send you enough "Shoo-Fly" to actually save you \$20.00 in milk and flesh. We will also include our Patented 3-Tube Gravity Sprayer.

This means that you will get enough "Shoo-Fly" to protect 10 cows for two weeks from maddening insect pests that set them crazy and cost you money.

Don't Accept Substitutes.

Write today. Name your express office.

DOES ALL WE CLAIM---
OR YOUR MONEY BACK

SHOO-FLY MANUFACTURING CO.
Dept. P 1310 N. 10th St. Phila., Pa.

Established 1885



1st. fly: leaving?
2nd. fly: sure! nothing doing
down here, they use
Shoo-Fly



DAIRY FARMING



BUTTER RECEIPTS ARE LARGE.

RECEIPTS of butter at our four big markets during the month of April were the largest on record for that month. On the other hand, disappearance into consumptive channels has been unusually large, although not sufficient to prevent sharp declines in prices. The production reports from creameries would indicate that some time during May the supply of butter will be sufficiently heavy to encourage storage accumulation.

SUNFLOWERS AS SILAGE.

MANY farmers in our northern counties are beginning to look more and more toward sunflowers as their silage material and Mr. Ernest Pettifor, of Otsego county, is one of them. He usually mixes the sunflowers with his corn and gets a very good stand. Three years ago he kept a record on his field and found that he was

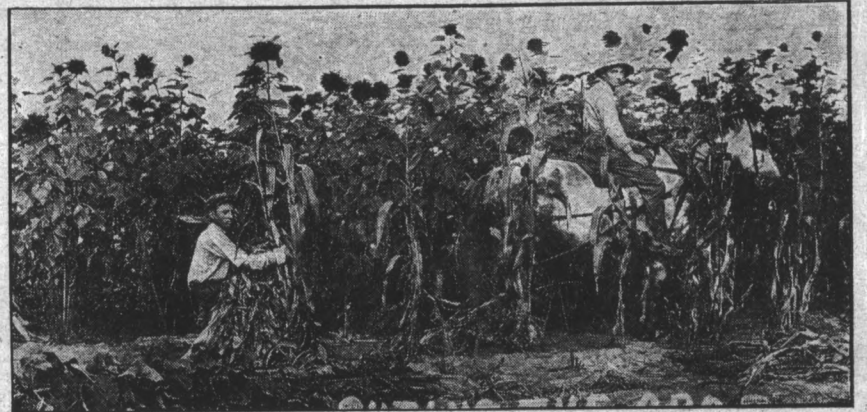
erage of 378.93 pounds of butter-fat. For each dollar spent in feed the owners receive \$2.40. Butter-fat was produced at a feed cost of twenty-seven cents per pound, and milk at a feed cost of ninety-eight cents per one hundred pounds. This herd was also the high herd in milk production.

In the association there were twelve herds which averaged over 300 pounds of fat for the year, and thirty-four cows which produced over 365 pounds of fat, or better than a pound of fat per day.

Roy Chillberg has been in charge of the testing for this association until recently. Jess Bird is now conducting the work.

GOOD MILK SOLD IN ALL CITIES.

A REPORT from Lansing indicates that most of the milk sold in Michigan cities is of high quality. This is because the farmers are taking good care of their dairy surroundings and



Harvesting Crop of Sunflowers for Silage.

CABBAGE PLANTS 2,000,000 25th May
var. Prepaid, 100, 40c; 500, \$1.25; 1000, \$2.25.
Express 5,000, \$7.50; 10,000, \$12.50. Cauliflower &
Aster, 100, 60c. Sure to please. List free.
W. J. MYERS, R. 2, MASSILLON, OHIO.

Reid's MILK COOLER

Milk not cooled over a Reid Cooler is likely not properly cooled. Get a Reid and save sour milk losses. By far the best cooler; most easily cleaned. We have added a farmer's heavy pressure cooler, tubular type, to our line. Write for prices or ask your dealer.

A. H. Reid Creamery and Dairy Supply Co.
69th St. and Haverford Avenue
Box 6, Philadelphia, Pa.

Why Not PUT THIS NEW MILL ON YOUR OLD TOWER

ALBION

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

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

Free Catalog in colors explains money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.

Electric Wheel Co.
35 Elm St., Quincy, Ill.

\$7.50 After 30 Days Free Trial

The Belgium Melotte Separator — with the wonderful Self-Balancing Bowl. No other like it.

30 days' free trial—then, if satisfied, only \$7.50 and a few easy payments — AND — the wonderful Belgium Melotte Separator is YOURS.

No Money Down!

Catalog tells all—write.

Caution! U. S. Bulletin 201 shows that vibration of the bowl causes cream waste! The Melotte bowl is self-balancing. Positively cannot get out of balance therefore cannot vibrate. Can't remix cream with milk. The Melotte has won 261 Grand and International Prizes.

Catalog FREE

Write for new Melotte catalog containing full description of this wonderful cream separator and the story of M. Jules Melotte, its inventor. Don't buy any separator until you have found out all you can about the Melotte and details of our 15-year guarantee which is infinitely stronger than any separator guarantee. Write TODAY. How many cows do you milk? The Melotte Separator, H. B. Babson, U.S. Mgr., 2843 W. 19th Street, Dept. A-310 Chicago, Ill.

Instantly Dissolving Salt Is Best

The soft porous flakes of Colonial Special Farmers Salt melt instantly and completely like a snowflake. Every speck works. No waste. Best for cooking, baking, meat curing, butter making and table use. Does not lump or cake like ordinary salt. Goes farther because it is all salt, pure salt. No moisture in it. Your dealer has it. Write for free booklet.

The Colonial Salt Company, Akron, Ohio
Chicago Buffalo Atlanta

COLONIAL SPECIAL FARMERS SALT

For Stock Salt—Use Colonial Block Salt Smooth—Hard—Lasting—Won't Chip

getting twenty-nine tons of silage from this mixture per acre. Since that he has been getting equally good yields. He is, therefore, a staunch advocate of this system where it is difficult to obtain mature corn with considerable growth.—L.

TWO FARMERS ARRESTED.

BECAUSE of alleged interference with tests by federal and state officers for tuberculosis cattle, two farmers of Kent county have been arrested. It is supposed that the farmers wished to avoid the loss that would come if their cattle were tubercular. It is reported that these men followed the injections of tuberculin made by the veterinarians with injections of turpentine in the same place. This neutralizing the effect of the tuberculin and the swelling that resulted made the diagnosis impossible, the doctors say.

According to the federal doctor, this is the first alleged invasion of tubercular testing that has even been recorded.

COW TESTER FINDS BEST COWS.

A YEAR of cow-testing work in the Rives-Jackson Association has gone into history with some satisfactory result. High cow in butter-fat production came from the herd of Vernon Clough. She was a senior five-year-old pure-bred Holstein. During the year this cow gave 15,500 pounds of milk, in which were 524.6 pounds of butter-fat. She returned \$2.50 for each dollar invested in feed. This cow is also high cow for the Jackson Association in milk production.

The best herd in butter-fat production was that owned by M. L. Noon & Son. This herd consisted of eleven Holstein cows. They averaged 10,788 pounds of milk which contained an av-

because of pasteurization. In the larger cities, such as Grand Rapids, Flint, Kalamazoo, Muskegon and Ann Arbor, eighty to eighty-five per cent of the milk is pasteurized.

It is also shown that most of the animals supplying milk for these cities have been tested for tuberculosis. Jackson, Kalamazoo, Bay City and Ludington have a record of a 100 per cent tuberculin test the past year for their milk supply.

In most cases, there is a certain class of trade which demands certified raw milk. In order to produce such milk, special care is necessary, and the cost of production is, therefore, much higher. In cost cases where the certified raw milk is sold, the farmers get from three to five cents per quart more for their product than the regular pasteurized milk.

DAIRYMEN ARE MAKING MILK SURVEY.

TO secure first-hand information on the use of milk and milk products, a nutritional study of the habits of people in ten New York counties has been undertaken by agents of the dairymen's league of that state. This survey, taken in the schools and homes of the residents of these counties will furnish information for promoting the use of dairy products.

A farmer is known by the stock he keeps.

Stint in the feed bucket this time of year means stint in the egg basket or milk bucket. Grass won't do everything.

He who would look upon the farmer's pursuit with contempt, is not worthy of the name of man.—Henry Ward Beecher.

SUMMER CHORES.

DAIRYMEN during the summer season find themselves tied up to a large amount of barn chores morning and evening. I do not think there are many dairymen who would not like to rid themselves of this laborious task, especially during the summer months, if it could be done without disorganizing the business.

At Forest Grove Farm we find ourselves confronted with a lot of chores during the summer season. We do not dislike doing chores, yet during the busy season we would like to cut down on the chores as much as possible.

Some dairymen manage to have their cows freshen in the early fall, milk them through the winter and into the spring, and then dry them off and, in this way, cut out summer chores. This is a good plan and in the end is just as profitable as dairying through the summer when prices are low.

I try to have most of my cows come fresh during the early fall. However, I shall have several cows freshen along during the summer. To cut down on chores I turn my horses to pasture Saturday noon and leave them out, unless bad weather until early Monday morning. I think work horses do better if allowed to pasture a day or so a week. The grass gives them a change of diet and cleans out the system.—L. R.

GRAINING COWS ON PASTURE.

FEEDING a well-balanced grain ration to cows on pasture markedly increases the milk flow, helps to balance the grass ration and keeps the cows in good condition.

Pasture during the spring and early summer months may supply the needs of the dairy herd, but having grown very rapidly, it possesses a large amount of succulent matter in proportion to its dry content, consequently is low in nutritive food value.

Cows always flush in milk flow during the early pasturing season, but later the flow rapidly declines. This is due to the fact that grass is a natural milk-producing feed. However, for the dairyman to make the most of the grass season he must not allow his cows to become overworked. When a ration is inadequately balanced, like spring grass, there is danger that the large milk flow is being accomplished at the cost of other factors which must be taken into consideration, if milk production is to be kept up throughout the milking period.

I know that my cows keep in better flesh, come through the early pasturing season in better condition to meet trying conditions later, when I keep up the grain ration during the spring and early summer months. I feed mostly farm-grown grains, such as ground oats, corn meal, wheat bran with an allowance of one and one-half pounds of cottonseed per animal per day.—Leo C. Reynolds.

COW-TESTING IN LIVINGSTON COUNTY.

THIS association has just finished its first four months of testing in its second year and some gratifying results have been obtained. The work for the second year was started January 23, 1923, and at the time there were twenty-seven members, with an addition of two shortly after, which more than complete the number of members required.

The very first month, twenty-seven of these members agreed to weigh each cow's milk separately and keep a daily record of each cow's milk production, giving them a much more accurate record than if only an average of the one day that the tester visits the farm is taken for the entire month. Also, greater pains were taken in feeding according to production and

this, with the daily check-up on each cow, is responsible for the wonderful showings some of these cows have made.

There are about 380 cows being tested each month in this association and, of this number, about eighty-five per cent are pure-bred Holsteins and the rest are grade Holsteins with the exception of one splendid pure-bred Jersey herd. Every member has a pure-bred sire at the head of their herd, and at the present time a county bull association is being organized.

The average per cow for the four months of this year is 33.43 pounds of butter-fat per month.

The highest herd average for this time for butter-fat was 53.99 pounds. High cow honors go to Eamonon's Butter Maidie, a pure-bred Jersey cow, in the Smith & Parker herd, having made 339.50 pounds of butter-fat with a feed cost of \$36.04 in 120 successive days. A pure-bred Holstein owned by C. S. Heeg & Son made a record of 270.09 pounds of butter-fat in ninety days, with a feeding cost of \$28.34.

Another interesting feature is the record of Bessie Beauty Walker, a cow owned by J. B. Tooley. In the month of March she produced over 2,000 pounds of milk and 92.64 pounds of butter-fat. Her daughter, Bessie Kalmuck, a junior three-year-old, made over 2,000 pounds of milk and 90.24 pounds of butter-fat in the same month, after completing a seven-day record of 501 pounds of milk and 25.04 pounds of butter-fat. If the good work is kept on we expect to have several cows with records of 750 pounds of butter for the year. The honors for high cow in 1922 went to James Hays, of Howell, her record being 684 pounds of butter-fat. The registered herd owned by Merle Crandell brought him \$122 above cost of feed per cow, which we consider very good for a herd of fifteen head.

The average production per cow in the United States is 3,527 pounds of milk. The average per cow in 120 cow-testing associations in the United States is 6,077 pounds of milk, which is double the average for a cow not in an association.

Michigan is just awakening to the fact that better dairying is absolutely essential to bigger profits and better living conditions in this state.

The last official reports show that Netherland leads the world in milk production with 7,585 pounds of milk per cow. Denmark is second with 6,950 pounds, and Switzerland a third with 5,666 pounds of milk per cow.

These facts plainly show that Michigan has not yet reached the highest of its ability in dairying, but with the present good prospects we expect to be one of the leading dairy communities in the world.

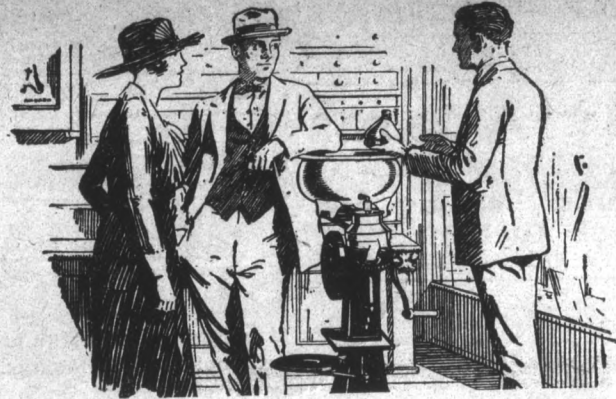
Yours for Better Feeding—Breeding and Weeding.—Carl Hornung.

SOCIAL PROBLEMS DISCUSSED.

MANY rural as well as urban social problems were discussed at the recent national conference of social workers in Washington. "America must segregate the growing numbers of feeble-minded and prevent the procreation of more defectives or the burden will some day be too great to handle and society will break," said former Governor Frank O. Loudon, of Illinois.

It was the belief of Dr. Walter H. Brown, director of the Mansfield, Ohio, Child Health Demonstration, that old age should be the principal cause of death. "Everybody should be like the famous 'one-hoss shay,' which, after a century of life went to pieces all at once," said Dr. Brown, and he gave some encouragement to the hope that we are making progress toward this end.

Virtue is no hermit. It has ever neighbors.



You Can Buy a De Laval for \$50 and Up—On Such Easy Terms that It Will Pay for Itself

Don't get the idea that a De Laval Cream Separator is high priced because it is the best. Considered on the basis of service a De Laval is the cheapest separator made. A De Laval costs a little more to begin with but lasts three or four times longer, and does better work all the time.

You can get a De Laval for as low as \$50, and up, depending on the amount of milk you have to separate. No matter if you have one or a thousand cows, there is a De Laval just right for you. And you can buy a De Laval on such liberal terms that it will pay for itself while you are using it.

When you get a De Laval you not only get the best separator service for the longest time, at the least expense—on the easiest terms, if desired—but you can see what you are buying. You can

try it; your local De Laval dealer will instruct you in its use and provide service should it ever be necessary; and you can always get parts from the De Laval Company at any time during the 20 to 30 years, or more, your machine should last. These important considerations are sometimes overlooked.

See the new 1923 De Laval at your local dealer's store. It is the best cream separator ever built. It has many improvements, skims cleaner, requires less care, and will last longer than any cream separator on the market.

You may be losing enough butter-fat with your present separator or by hand skimming to pay for a new De Laval every year and not getting it. If you do not know the name of your nearest De Laval agent, write us direct for complete information.

The De Laval Separator Co.

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



Sooner or later you will use a
De Laval
Cream Separator and Milker



400 Gallons of Sterilizer for \$3



One ounce of B-K is diluted with three gallons of water to sterilize cans, pails, strainers, separators, etc.

B-K kills the germs that sour milk and cream. Makes things sweet and pure. B-K is the dependable, recognized standard. None genuine without the big blue label and trade mark. Money back if not satisfied. At your dealer. Write for bulletin 320A giving information.

General Laboratories

430 Dickinson St.,
Madison, Wis.



PROFITS FROM YOUR CORN CROP

For every building need—glazed hollow tile and mat face residence blocks. Tile, wood and cement stave silos. For permanence and economy. Special offer to farmer agents. NATIONAL CLAY PRODUCTS and SILO CO. Dept. 19 Muncie, Ind.



PATENTS

Write today for free instruction book and "Evidence of Conception" blank. Send sketch or model for personal opinion. LALANCE O'BRIEN, REGISTERED PATENT CAYLER, 952 Southern Bldg., Washington, D. C.

LEGAL ADVICE You state facts Law for \$1.00—20 years court practice. LEGAL ADVICE CO. 319 Erie Building, CLEVELAND, OHIO.

PURE BRED FOX HOUNDS all ages. Pups bred especially for Coon, Skunk and Rabbits. W. E. LECKY, Holmesville, Ohio.

A Clubbing Bargain

OFFER No. 572.
MICHIGAN FARMER
Fruit Belt
Power Farming
Total value\$2.50
All for \$1.35

MICHIGAN FARMER,

Detroit, Michigan:

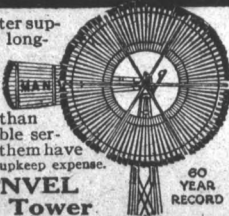
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STILL LEADS THEM ALL

For dependable water supply, trouble-proof, long-life service, the Manvel Direct Stroke Windmill continues to be the favorite after more than 60 years' dependable service. Thousands of them have run 30 years without upkeep expense.

THE MANVEL Fits Any Tower

They fit any tower, working parts encased, adjustable direct stroke; self-governing; broad ball-bearing turntable. Every part is made in our own factory—hence low price, high quality. Let us tell you how the Manvel will save you money. Write for Free Book describing our Wood and Steel Mills, Towers, Tanks, etc. Address Dept. 723 60 KALAMAZOO TANK & SILO CO., Kalamazoo, Mich.



PEONIES 10 roots for \$3.00. Write for Special Offer. NORTHERN NURSERY CO., Wausau, Wis.

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Ten Days before date of publication

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LITCHFIELD, MICHIGAN
Michigan's Leading Live
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Painstaking, modern and scientific methods, coupled with the finest of breeding animals makes possible our enviable accomplishment.

You, Mr. Breeder, would enjoy and profit by a visit to this unique establishment of superlative breeding.

Your correspondence and inspection are invited.

WILDWOOD FARMS
ORION, MICHIGAN
W. E. SCRIPPS, Prop. SIDNEY SMITH, Supt.

Registered Aberdeen-Angus 10 heifers, 6 bulls from eight to fourteen months. Best of breeding. The growthy kind that make good. Reasonable. Inquire of F. J. Wilber, Clio, Mich.

Registered Guernseys

A fine Bull ready for light service, special terms if you wish. J. M. Williams, No. Adams, Mich.

Wallinwood Guernseys

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

Guernsey Bull Richly bred, splendid type, clear nose. Heavy producing ancestors. Priced to sell. G. A. Wigent, Watervliet, Mich.

For sale Registered Guernsey cows, May Rose Breed. ing also bull calves \$50 each. Registered A. R. dams. JOHN EBELS, R. 2, Holland, Mich.

FOR SALE Registered Guernsey cows and heifers. One bull calf. Geo. N. Crawford, Holton, Mich.

WINNWOOD HERD**Registered Holsteins**

?

Ask us about a Real Bull a
Maple Crest or an Ormsby.

JOHN H. WINN, Inc., Rochester, Mich.

The Traverse Herd

We have what you want in BULL CALVES, the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dam's records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

TRAVERSE CITY STATE HOSPITAL
Traverse City, Mich.

MICHIGAN ABERDEEN ANGUS BREEDERS' ASSOCIATION**SALE**

AT MICHIGAN AGRI. COLLEGE

East Lansing, MICH.

Tuesday, June 12, 1923

SALE AT 1:00 P. M.

45 Head of strictly High Class Aberdeen Angus Catt'e ill be offered 45

Representing the Erica, Blackcap, Blackbird and other good families. Foundation seed stock from the leading herds of the state, sired by such noted bulls as Edgar of Dalmeny, Elcho of Harvostoun, Edgardo of Dalmeny, Enlate, and other good bulls, that have proved beyond doubt that they have sired animals that have been shown at the leading shows in America and Canada.

Great pains have been taken to select the best from each herd, and will be a select draft, well worth coming from every state in the union to secure some of the choicest in Aberdeen Angus breeding.

M. A. Judy, Sale Manager.

Col. J. P. Hutton, Auctioneer

For Catalogues and other information, address

A. MINTY, Ionia, Mich.

Holstein Friesian heifer and bull calves, purebred registered and high-grade. Price \$20 up. Splendid individuals and breeding. Write us your requirements. Browncroft Farms, McGraw, N. Y.

A Good Note accepted in payment of finely bred reg istered Holstein bull calves. Quality of the best, and at prices within reach of all. Write GEO. D. CLARKE, Vassar, Mich.

If you want practically pure HOLSTEIN or GUERNSEY calves, write Edgewood Farms, Whitewater, Wis., before ordering anywhere.

HOLSTEIN Bull calf 3/4 white, very large stock, best breeding. Price for short time registered \$45. B. E. Kies, Hilldale, Mich.

HEREFORDS

10 extra nice Repeater and Fairfax heifers from 14 to 20 months old for sale, also 10 cows.

ALLEN BROS.

616 So. West St., Kalamazoo, Mich.

HEREFORDS

Young Cows with calves by side consisting of blood from America's foremost herds at prices that enable them under Earlsrpe Hereford Beef Plan to pay for themselves within a year to 18 months. Bulls including prize winners at the larger shows at practical prices. Herd headed by Straight Edge 1169796, one of two sons of perfection. Fairfax out of a daughter of the Famous Disturber. T. F. B. Sotham & Sons, (Herefords since 1839), St. Clair, Mich.

Polled Herefords

Extra good Bulls and Heifers of breeding age. Also young cows with calves at foot. Must reduce herd. Glen Golden, R. 1, Angola, Ind.

Meadow Brook Herefords Fairfax and Disturber breeding stock for sale, both sexes, any age. Call, phone or write, Earl C. McCarty, Bad Axe, Huron Co.

Maple Hill Farm, Herefords and Polland Chinas, one choice gilt bred for May farrow left for sale. Two pleasing yearling heifers for sale. George R. Wheeler, Mt. Pleasant, Michigan

BROOKWATER JERSEYS**BULL CALVES FOR SALE**

From Register of Merit dams and sired by Majesty's Intense 127191 and Brookwater Veda's King 169515. Write for Prices and description. Herd is on Federal accredited tuberculosis free list.

BROOKWATER FARM, Ann Arbor, Michigan
H. W. Mumford, Owner. J. B. Andrews, Lessor.

BUTTER BRED JERSEY BULLS
CRYSTAL SPRING STOCK FARM,
Silver Creek, Allegan County, Michigan.

FOR SALE: Jersey bulls ready for service. All cows Register of Merit. Accredited herd. SMITH AND PARKER, R. 4, Howell, Mich.

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

30 Head of Jersey cows and heifers for sale. Chance to select from herd of 70. Some fresh, others bred for fall freshening. Colon C. Lillie, Coopersville, Mich.

NOMAD FARMS**Dispersal Sale**

Tuesday, June 12, 1923

Scotch and Scotch topped Shorthorns, good milkers, hand milked; Big Type Polands, Herd sire, a son of Haynes' Lady Clan, Grand Champion cow Mich. State Fair 1921-22 combination mares; Morgan foundation, Barred Rocks. Get the Catalog. JAY R. ROGERS & SON, Morenci, Mich.

Shorthorns Bidwell Revolution Jr. heads herd. Sire, Revolution, Dam, Maxwellton Rosewood 3d, 2d Dam, Imp. Rosewood 8th. Now offering one good roan two year old bull out of a Marr Mari-gold dam, also a few cows and heifers safe in calf. Prompt attention to correspondence—visitors welcome. State Accredited herd. One hr. from Toledo, O. N.Y.C. Ry. BIDWELL STOCK FARM, Tecumseh, Mich., Box D

Richland Shorthorns

Special offer: Twelve Bulls from twelve to twenty four months old. Red, White, Roan. Good size, best of breeding from good milking dams. Priced for quick sale. Write for particulars.

C. H. Prescott & Sons,

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

Francisco Farm Shorthorns

and Big Type Poland Chinas. One 2 yr. old bred Heifer, \$200. Two choice yearlings, \$150. each. Three bulls, \$100. up. 3 boars, \$25 each. Lots of spring pigs of March farrow. P. P. Pope, Mt. Pleasant, Mich.

Live Stock**PASTURE MAY KILL PIGS.**

IT is quite common for pigs to bloat and die quickly when suddenly turned into green clover when they are very hungry or not accustomed to such feed. That often occurs when pigs have been grazing grass and the pasture becomes so short that the feeder decides a change is necessary, and so turns the pigs into a lusty growth of clover without due preparation.

Wet clover, as with cattle, is most likely to cause bloat. Any green feed may have the same effect, under similar circumstances. The best method of raising hogs is to let them graze a succession of green crops from early spring until late fall. Rye, oats and peas, rape, clover, alfalfa and corn are the crops most used for this purpose, and losses from bloat or acute indigestion do not occur under this system of feeding, as the pigs become accustomed to the green feed early in the season, and take it daily without becoming inordinately hungry.—E. W. G.

WOOL PRICES MAINTAIN STEADY LEVEL.

A CONSIDERABLE portion of the wool in the western states is reported as having been contracted for and a fair quantity pledged for sale through the various pools. Prices paid ranged from thirty cents for fall wool in California to fifty-three and one-half cents for twelve-months' wool in other states. In some sections shearing has just commenced.

Sales in Utah ranged from forty-one to fifty-one cents. About seventy-five per cent of the clip has been sold to date, practically twelve per cent of the clip having been pooled by growers and sold. Prices in Idaho ranged from forty-three to forty-five cents with approximately twenty-five per cent of the clip sold. The Soda Springs pool is reported to have approximately 500,000 pounds of wool for sale.

Prices in Wyoming range around forty-five cents, with about thirty per cent of clip having been sold to date. Montana prices range from fifty to fifty-two and one-half cents, but a tendency to hold for more money is reported. It is estimated that less than ten per cent of the clip has been sold.

A sale by auction of 600,000 pounds is reported from Tehama county, California at the following prices: Fine strictly combing, fifty-three and one-half cents, shrinkage around fifty-eight per cent; fine and fine medium, fifty to fifty-two and one-half cents, shrinkage somewhat heavier; three-eighths blood strictly combing, forty-seven to fifty-one cents, with a probable shrinkage of from forty-five to forty-seven per cent.

GROW PORK RAPIDLY.

DON'T allow a pig, once born, to just exist, but make a hog of him as soon as possible. Be sure to have the pigs on pasture.

If you are not fortunate enough to have clover or alfalfa, June grass is better than no pasture. It takes but a short time to grow a patch of rape or of oats and peas on which the pigs can be pastured very successfully. One thing of which you may be sure, you will get good pay for the time and ground used.

At three weeks the pig should be eating shorts or ground feed and drinking milk from a trough. They will do better and so will their mother. Then, also, the pigs when weaned will not be given the usual setback.

Make a small pen or runway that

FOR SALE Two extra good straight Short horn bulls ready for service. One a Village Maid, the other a Dutchees of Gloster, both roans and either of them a bargain. Address A. & F. PARMENTER, Durand, Michigan

Two Scotch Shorthorn Bulls For Sale
J. A. BARNUM, Union City, Mich.

Milking Shorthorns priced reasonably. An accredited herd selected for beef and milk. Beland and Beland, Tecumseh, Michigan

Reg. Brown Swiss, for Sale. E. T. SPENCER R. R. 1, Sunfield, Mich.

HOGS

Woodlawn Farm Duroc Hogs meet present day requirements, length, size and quality. Young stock for sale at reasonable prices and fully guaranteed. Write your wants. W. E. BARTLEY, Alma, Mich.

I AM OFFERING BRED SOWS

fall yearling and spring gilts, bred for March and April farrow, that are tops. Mated to O. O. K. Col. 2nd and Orion Giant Col. Write for price list. W. O. TAYLOR, Milan, Mich.

Duroc Jerseys 12 bred gilts, also 50 registered black top ewes. CAREY U. EDMOND, Hastings, Mich

Is It Worth While?

A real boar pig sired by Woodford Sensation, Dams of Defender or Pathfinder breeding.

If so, We have them of Sept. farrow, not only showing extreme quality, but greater size than you will expect to find. Follow M 29 to

Kope-Kon Farms, Coldwater, Mich.

DUROC Fall Boars Ready for service sired by Pathfinder Orion, \$30 each, registered and crated, one sow bred for June farrow at \$40. RUSH BROS., Romeo, Mich.

DUROC BOARS: Do you want a good growthy heavy boned fall boar to head your herd. One with size, type and quality, if so write us as we have them, Sired by outstanding herd boars. F. J. Drott Monroe, Mich. R. F. D. No.

Duroc—Jerseys A few Pathfinder Gilts Bred to a good son of Foust's Top Col., E. D. Heydenberk, Wayland, Mich.

Benjamin's BIG TYPE CHESTER WHITE'S Early maturing, prolific, heavy weight, prize winner kind from bloodlines of Champions and Gs. Millions, now making big money for thousands. I have bred more breeders on road to success than anything man. Let me help you. Easy to start. Costs little. G. S. Benjamin R. F. D. 10, Portland, Mich.

Chester Whites Herd headed by The Monster and Iowan's Jumbo. Two great Big Type boars of the breed. FRED L. BODIMER, Reese, Mich

For Sale O.I.C. and Chester White Swine, Sept. sows bred for July farrowing, early March pigs sired by a son of "The Monster." Satisfaction guaranteed. Papers free. Bruce W. Brown, Mayville, Mich

CHESTER WHITES WATCH our ad for fall bred sows and gilts. WEBER BROS. 10 Mile Rd. West Royal Oak, Mich.

Chester White Gilts Sired by The Monster and bred to Colonel Denby for June farrow. F. W. Alexander, Vassar, Mich.

O. I. C's and Chester Whites

Gilts sired by Mich. State Fair Gr. Champion 1921, and bred for March and April farrow to Mich. State Fair Jr. Champion 1922, the common sense type and price.

ANDY ADAMS, Litchfield, Mich.

O. I. C. Big Type with Quality. Affew fall pigs Extra good under yr. showherd. Sired by Grand Champion Michigan State Fair 1922. Also Spring pigs. Newman's Stock Farm, Marlette, Mich.

21 Reg. O.I.C. SOWS bred August farrow. 2 yearling Boars, 2 Boar Pigs, 10 weeks old. All stock shipped on approval. FRED W. KENNEDY, Plymouth, R. No. 2

O.I.C. fall boars and gilts sired by Grand Champion Boar at W. Mich. State Fair. We ship C.O.D. reg. free. Geo. M. Welton & Son, Alto, Mich.

O. I. C's. Orders booked for late farrowed spring pigs at \$10 to \$12 each. Registered free. O. J. THOMPSON, Rockford, Mich;

O.I.C. One last fall boar, 10 last fall gilts bred, 100 this spring pigs, recorded free, 1/2 mile west of Depot. City's Phone, Otto B. Schulze, Nashville, Mich.

O. I. C. March pigs, single or in pairs, also bred gilts for August farrow. CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C's One yearling boar and March pig. Young Brown Swiss bull. Milo H. Peterson, Elmhurst Farm, Ionia, Mich. R. 2

RADIO GIANT

Represents the worlds largest strain of Poland China Hogs. Boars, Sows, Pigs at bargain prices from Mich. pioneer herd. We have bred the best big for 30 years. We can furnish what you want.

JNO. C. BUTLER, Portland, Mich.

Big Type P. C. some very choice boars double im- mune, over 1100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich

L. T. P. C.

Choice Gilts \$25 to \$40. Boars \$30. Fall Pigs \$15. HART AND CLINE, Address F. T. HART, St. Louis, Mich.

Large Type P. C.

A few fall pigs for sale. Sired by "The Wolverine" a grandson of "The Rainbow and Big Bob" the greatest yearling boar I ever owned has else combined with quality. Come and see the real kind. W. E. LIVINGSTON, Parma, Mich

Large Type P. C.

The Real Kind. A few of those big, smooth stretchy, bred gilts for sale. Bred for March, April and May farrow. Priced right. N. F. BORNOR, Parma, Mich.

Large Type Poland Chinas

For sale Fall Boars, Gilts bred or open. Herd headed by two Grand Champion boars, A. A. FELDKAMP, Manchester, Mich.

the pigs have access to at all times. feed, shorts, etc., constantly. It is said of certain farmers, "You never hear his pigs squealing around." These farmers usually have hogs weighing 200 pounds at six months of age, oftentimes more. Their slogan is, "plenty of good feed and fresh water at all times."

Two two-hundred-pound hogs can be grown more economically than can one four-hundred-pound hog. Barring a poor market the pigs should go on the market at six months of age. Some farmers have them ready sooner but more not that soon. Far too many pigs are from nine to ten months of age before they will weigh two hundred pounds. Not enough skim-milk, ground feed, and good pasture, and lack of care has been their lot in life.

If given constant access to the proper feeds the hog cannot be overfed.

Growing pigs as fast as possible is the most economical in feed, time and labor used. It also helps us to handle more hogs each year, thus giving us a profit on a greater number.—M. George.

THE TB. TEST.

WISCONSIN still maintains her lead in number of cows in accredited tuberculosis-free herds, the number being 59,558, but New York is making rapid progress with 395,525 cows under supervision.

Michigan had 23,592 cows tested in April, with 689 reactors. Ohio had 1,955 tested and ten reactors, while 40,462 cows were tested in Pennsylvania during the month, with 1,216 reactors.

"A bushel a day is the price you pay for corn planted after the middle of May." Experiments prove the truth of this.

NO OTHER CUTTER LIKE IT



10 Big Special Features

1. Lowest Speed — 600 r.p.m. for 40" t. silo.
2. Largest Capacity, Fast, clean cutting.
3. Light Draft—means less power, less fuel and oil, less vibration, less repair expense.
4. Large Feeder Rolls and Feed Web—saves one man's work in feeding.
5. Cleanest Cutting, knives set close to cutter bar.
6. All Steel Construction—no wood used anywhere.
7. Feed Table and Cutting Device—practically one unit construction.
8. All Gears Enclosed—all gears mounted in cast iron drum, dust and oil tight.
9. All Parts Easy to Oil—takes only a minute to oil parts. Gears run in oil.
10. Length of Cut Easily Adjusted—Simple, positive set screw adjustment made in a minute. No gears to change.

BEST SELF-FEEDING CUTTER MADE
Investigate the construction that makes the Gehl-Champion the best, most durable, most efficient cutter. Write today for ensilage cutter facts and valuable information.

Gehl Bros. Mfg. Co., 411 So. Water St., West Bend, Wis.

North Western Ontario (Canada)

Comprising the District of Kenora, Rainy River and Thunder Bay.
A Great Opportunity For Intending Settlers

The land is easily cleared; grain and vegetables grow as well and in as great variety as in the older part of the Province. Wheat has been produced of as good quality as "Manitoba No. 1 Hard." Game is plentiful and of many kinds and fish abounds in the rivers and lakes.

The summers are warm and the winters cold and bracing but the dryness of the atmosphere makes the cold less felt.

Much of this land is within ten or fifteen miles of large cities or towns. With excellent railways and highways, good markets are assured.

If you are planning to own a farm of your own, you may have 160 acres of this rich agricultural land, in some Townships free, and in others at 50 cents per acre. Land closer to centres not owned by the Province may be purchased from \$2. per acre up.

For information write:
S. H. WILSON,
Ontario Government
Colonization Agent,
Port Arthur, Ont.

Hon. Manning Doherty,
Minister of Agriculture,
Parliament Buildings,
Toronto.

Pennsylvania steer feeders find that they gained an average of \$15 a steer, over four years ago, by having silos.

The advance in corn prices has effectively checked the tendency toward an expansion in the cattle business.

Logically, the time to build up a beef herd is when conditions are in a bad way. Then, as these conditions improve, the producer's output increases and he is ready to sell when prices are relatively high.

No matter how they squeal, give the hogs their worm medicine. A farmer made a dollar a head more last year on pigs treated with santonin capsules.

From time to time peoples have revolted from the over-loading of governing bodies, either with men or with prescribed formal duties. Wise leaders who are seeking the permanent good of their people keep as far as possible from this danger.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

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

Result of Open Joint.—I am anxious to know if there is a cure for a horse that was kicked in stifle, and the joint oil ran out. The animal is five years old. E. A., Clarkston, Mich.—A chronic case like the one you mention is incurable.

Weak Heart—Opacity of Cornea.—I have a mare five years old which has never worked until this spring. She has lots of pep. She got pretty warm and since then pants when worked. Doesn't sweat much. Same mare has a white film or scum over one eye, which came in a day's time. Can you help us any S. C. S., Buchanan, Mich. Your mare exhausted herself, was perhaps not in proper condition to do work, her muscles were weak and, of course, the heart being muscular suffered strain. Rest is the remedy, but, of course, plenty of walking exercise will do her good. Give her sixty drops of fluid extract of nux vomica at dose in feed or in drinking water three times a day. When she fails to perspire freely, give her once ounce of sweet spirits of nitre in drinking water three times a day. Blow equal parts of calomel and boric acid into eye daily, until eyeball clears.

Chronic Cough.—My nine-year-old colt is due to freshen soon; she has coughed some during the winter. Lately she makes considerable noise while breathing. Is her ailment serious? What shall I do for her N. J. S., Union City, Mich.—Apply equal parts of tincture of iodine and camphorated oil to throat twice a day. Give her glyco heroin (Smith) in one ounce doses three time a day. After she calves she will be more comfortable.

Cow Holds Up Milk.—Three weeks ago my cow freshened; she refuses to let down milk, until her calf is first allowed to suck her. L. H. P., Constantine, Mich.—The writer fails to understand why so many dairymen make this mistake of first allowing the calf to suck its mother, if they intend to soon milk her by hand or machine. Keep the calf out of her sign or hearing. Feed her grain when you milk her; if treated kindly and not roughly milked she will soon let her milk down.

Lame Sheep.—I have been troubled at times, for the past two or three years, with lame sheep. Have a flock of forty, seldom have more than two of them affected at the same time, mostly lame in one front leg. The only sore spot is in back part of heel, lameness lasts two or three weeks. W. J. M., North Branch, Mich.—Paint sore parts with equal parts of tincture of iodine and camphorated oil, daily. If I knew the cause I would gladly tell you. Perhaps you can figure it out, then remove it and your sheep will travel sound.

Cribbing.—I have a mare that cribs. She is five years old. Can she be

Dispersion-Consignment

65 Head Registered Holstein-Friesian Cattle

SALES PAVILION FAIR GROUNDS

HOWELL, MICHIGAN

Thursday, June 14th, 1923, 12:00 O'clock Noon

Includes the entire herd of Wm. F. Shehan, numbering 45 head with consignments from the well-known herds of Mark B. Curdy & Co., C. S. Heeg & Sons; M. A. Mastie & Son; Munsell & Satterla; Musolf Brothers, and H. W. Norton, Sr.

The Shehan Herd is known as one of the best individual and heaviest producing herds in Michigan and the names of the other breeders is a guarantee that their stock will be good.

Sixty-two females, including several that will be fresh. A number have records, one above 26 lbs. They are bred to High-Class Bulls.

Three bulls, including the Shehan Herd Sire, who is three years old, a splendid individual, is from a 31-lb. Junior four-year-old cow who is a sister to the World's record Junior four-year-old cow for seven-day milk production, while his sire is from a 30-lb. daughter of a 31-lb. cow and is by a son of a 33-lb. cow.

A bull calf from a 31-lb. cow with a yearly record of 929 lbs. of butter and 21,489 lbs. of milk, sired by King Ona Champion, who is from a 33-lb. cow with 1,007 lbs. of butter and 21,419 lbs. of milk in 305 days, and is by a son of the 30-lb. cow, Ona Button De Kol, with a yearly record of 1,345 lbs. of butter and 26,761 lbs. of milk.

Herds under State and Federal Supervision. (Sixty-day retest privilege).

COL. J. E. MACK, Auctioneer.

For Catalogs, Address F. J. FISHBECK,

Howell Michigan

MICHIGAN HEREFORD AUCTIONS

100 Head, 70 Lots, 14 Bulls, 56 Cows & Heifers; 30 calves go free with their dams. Money-makers. Fairfaxes, Disturbers; Woodfords, Anxieties. No better blood.

Ramsey's Sale, June 7th, 1923

AT ATHONTON STATION; Pere Marquette Ry. Half-way between Harbor Beach and Port Hope on Huron Shore Road. 6 Bulls, 23 Cows and Heifers; 16 with Calves

Baker's Sale, June 8th, 1923

AT ST. CLAIR. Sotham Hereford Farm. 6 Blocks from Station of Port Huron & Detroit Electric Ry. 3 blocks from local stop. 7 Bulls, 28 Cows and Heifers; 14 Calves.

PRACTICAL CATTLE, kept practically to pay practical people profits under present pressing farm conditions. Learn Michigan's unique Hereford system. It pays. All Hereford breeders will ultimately join it. If you get as good individuals elsewhere you will pay more for them. Enjoy a Michigan Trip. Motor to these sales. For CATALOGS giving pedigree and particulars.—Address

T. F. B. SOTHAM & SONS

(Sales Mgr's. Herefords since 1839)

ST. CLAIR, MICH. Phone 250

HOGS

BOARS READY for service. Spring boars at weaning time and gilts bred to (Ambition Again) for Sept. farrow. They are priced to sell, and shipped on approval. Dorus Hoyer, Akron, Mich.

L. T. P. C. Two fall boars left, am now booking orders for Spring Pigs delivered in May at bargain prices. Write for price and plan of selling. They have made good and will again. M. M. Patrick, Gd. Ledge Mich.

Walnut Alley Big Type P. C. Gilts all sold. Thanks to my customers for their patronage of the past, and all that inquired. A. D. Gregory, R. 3, Ionia, Mich.

Large Strain P. C. 2 nice gilts with pigs by side, also pigs at weaning time. H. O. SWARTZ, Schoolcraft, Mich.

Lone Maple Farm L. T. P. C. Spring pigs ready. Also yr. boar. Write for description and prices. F. R. Davis & Son, Belding, Mich.

Hampshires A few bred gilts left. Place your order now for your boar pig. Pairs not akin. 16th year. JOHN W. SNYDER, R. 4, St. Johns, Mich.

cured G. P., Brimley, Mich.—No, cribbing is an incurable vice. If she sucks wind, place strap around neck and let her wear it. Feed her off the floor, remove manger, cover corners of stall framework with tin or zinc.

Loss of Appetite.—I have a Guernsey heifer one year old that has no appetite for most kinds of food, but will drink milk, or meal in slop. She refuses to eat dry feed. I offer her alfalfa hay, corn fodder, potatoes, ground oats, corn and rye, but she refuses to eat it. Her bowels are always costive, although I feed freely of bran, oil meal in slop. J. F., Bear Lake, Mich.—Give her enough mineral oil to keep her bowels open, and don't neglect to exercise her.

Partial Paralysis.—Sow had eight pigs; we weaned them when they were four and one-half weeks old. The pigs are thriving fine. Two days before we weaned the pigs the sow ate only part of her feed; one day later she was unable to get up, seeming to have lost the use of hind quarters. What is the cause and what is the cure, if any? O. B., Avoca, Mich.—Give her three ounces of castor oil to open bowels. Feed no corn, more oats, oil meal, tankage, roots, clover, alfalfa. Give ten or fifteen drops of fluid extract of nux vomica at a dose three or four times a day, and apply mustard and water to back three times a week.

SALE

Hampshires Choice sows and weanling pigs carrying best blood lines of this breed. Prices on request. JAMES G. ARTHUR, Grass Lake, Mich.

HAMPSHIRE—Few choice Mar. pigs, 2 Fall boars herd headers. Sows and gilts bred for 1st. Sept. farrow. Write Dr. Cribbs, Three Rivers, Mich.

HORSES

Percheron and Belgian Stallions

of size and quality, including first prize winners. If your locality is in need of a good draft stallion, write me for my breeding plan, which will interest you. Fred G. Stevens, Breckenridge, Mich.

POULTRY

STAR HATCHERY BABY CHICKS

From Select, Vigorous, Approved, Heavy Laying Breeding Stock. S. C. English White Leghorns. 50, \$5.25; 100, \$10.00; 500, \$47.50; 1000, \$95.00; Anconas, 50, \$5.75; 100, \$11.00; 500, \$52.50. 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.

Star Hatchery, Box O, Holland, Michigan

DOWNS' CHICKS

Extra selected, English White Leghorns from my best breeding pens, on June 15 and later at \$10.00 per 100. Book orders now. Write for free 16 page catalogue.

W. A. DOWNS

WASHINGTON, MICHIGAN.

Hardy Northern Bred CHICKS

Reduced prices for June delivery. Barons S. C. W. Leghorns 10c each \$50. per 1000. Parks strain Barred Rocks 13c each, \$32.50 per 500. Parcel Post paid. 100 percent live delivery guaranteed. Quality is assured as we are owners and breeders of one of the leading pens at the Michigan Egg Laying Contest, 8 to 10 weeks old S. C. W. Leghorn pullets \$1. each, \$30. per 100. PINE BAY POULTRY FARM, R. 4, Holland, Mich.

GUARANTEED CHICKS. Prices low when considered. S. C. Barron Eng. Whites, Browns, Anconas 9c. We have Class A flocks. We sell no class B but class A chicks. 100% live. 10% down Postpaid. Bank Ref. Catalog free. Order now. R. 2M. Zeeland, Mich.

CHICKS from good selected heavy laying flocks of S. C. Buff Leghorns. We keep just the one breed. Write for circular. Willard Webster, Bath, Mich.

BARRON WHITE LEGHORNS

Quality chicks from pure bred vigorous stock. \$8.50 per 100. \$80.00 per 1000 postpaid. Live arrival. Bank ref. Order from this ad. Catalog. R. 9, Highland Hatchery & Farms, Holland, Mich.

BABY CHICKS — PURE BRED From exceptionally fine free range flocks Anconas and Leghorns 15c. Barred Rocks & Reds 14c. White Rocks & Wyandottes 15c. Immediate deliveries. Compare the weights. Sturdy Baby Chick Co., Springfield, Ohio.

TRY a Michigan Farmer Classified Liner. They bring results.



THE LATEST MARKET REPORTS



GRAIN QUOTATIONS

Monday, May 28.

Wheat.
 Detroit.—No. 2 red at \$1.32; No. 2 mixed \$1.32; No. 2 white \$1.32.
 Chicago.—No. 1 hard \$1.18@1.18½.
 Toledo.—Cash \$1.32@1.33.

Corn.
 Detroit.—Cash No. 2 yellow 86½¢; No. 3, 85½¢.
 Chicago.—No. 2 mixed 78½¢@78¾¢; No. 2 yellow 78¾¢@79½¢.

Oats.
 Detroit.—Cash No. 2 white at 49¢; No. 3, 47½¢.
 Chicago.—No. 2 white at 43¢@43¾¢; No. 3 white 43½¢@44¼¢.

Beans.
 Detroit.—Immediate and prompt shipment \$7.65.
 Chicago.—Choice \$7.90; red kidneys \$8.25.

Rye.
 Detroit.—Cash 77¢.
 Chicago.—73¢.

Seeds.
 Detroit.—Prime red clover cash at \$11; alsike \$10; timothy \$3.30.
 Toledo.—Prime red clover cash at \$11; alsike \$10.25; timothy cash \$3.30.

Barley.
 Detroit.—Malting 74¢; feeding 70¢.
 Chicago.—60¢@70¢.

Hay.
 Detroit.—No. 1 timothy \$17.50@18; standard \$16.50@17; light mixed at \$16.50@17; No. 2 timothy at \$15.50@16.50; No. 1 clover \$13@14; rye straw \$11.50@12; wheat and oat straw at \$11@11.50 per ton in carlots.

Feeds.
 Bran at \$36; standard middlings at \$38@38.50; fine do \$38.50@39; cracked corn at \$40; coarse cornmeal \$38.50; chop \$34.50@35 per ton in 100-pound sacks.

WHEAT

The condition of winter wheat and the acreage sown to spring wheat are still in doubt. Reports of supposedly competent crop observers are unpromising in both cases but these await official confirmation. Ample rainfall has occurred in all important wheat sections. Mills are making flour at a more rapid rate than usual at this season of the year but flour stocks in the leading cities are liberal and demand is said to be poor. Export buying has been inactive in the last ten days.

CORN

The after-planting run of corn seems to be starting as primary receipts increased over 40 per cent last week but they were only about 50 per cent of the ten-year average for the corresponding period. Reports from many sections indicate that the movement will be small and short-lived as farm reserves are limited, the feed requirements for cattle and hogs are large, and local demand will absorb sales at many points. The new crop needs less rain and more warmth but no apprehension has been aroused thus far.

OATS

Oats crop prospects appear fairly good. Demand for cash oats is less keen than a few weeks ago, but the receipts are below normal and the visible is less than one-third of that of last year and about two-thirds of the five-year average.

SEEDS

Another small decline featured the clover seed market last week. Interest centers in new crop prospects which are unfavorable as a result of winter-killing and delayed growth.

FEEDS

Feed prices declined further last week as demand is small with heavy offerings of wheat feeds for future shipment at substantial discounts. Kansas City mills quote season bran at \$18. Cottonseed meal stocks at the mills are slightly larger than last year. Corn feeds have held steady.

HAY

Scarcity of best grades of timothy and clover continues to offset the light demand and prices are firm. Poor grades are neglected. New crop alfalfa has started to market while purchases by dairymen have fallen off.

POULTRY AND EGGS

The egg market opened with slightly higher prices last week but as the receipts became more liberal the market declined toward the close. There

was some falling off in egg receipts. The shortage in cold storage holdings as compared with last year is being eliminated steadily.

Chicago.—Eggs, miscellaneous 24¢@24½¢; dirties 21½¢@22¢; checks 21½¢@22¢; fresh firsts 24¼¢@25¢; ordinary firsts 23¢@23½¢. Live poultry, hens at 26¢; broilers 40¢@42¢; roosters 13½¢; ducks 23¢; geese 13¢; turkeys 25¢.

Detroit.—Eggs, fresh candled and graded at 24¼¢@25¼¢. Live poultry, broilers at 45¢@50¢; heavy hens 28¢; roosters 15¢; geese 14¢@15¢; ducks 23¢@26¢ per pound.

CHEESE

Cheese prices in distributing markets advanced again last week in accord with the higher country quotations. Stocks were moderate but were sufficient to fill all orders. Quality is good although the season is backward and as yet no grass cheese has made its appearance. No buying for storage has been reported.

POTATOES

Shipments of new potatoes are increasing gradually and have represented about 25 per cent of the total carlot movement. They are only about half as heavy as during the corresponding period in each of the past two years. Prices at most points declined last week, with northern whites at 90¢@1 per 100 pounds in Chicago and \$1@1.50 in other cities.

BEANS

Pea and bean market is firm. Prices range from \$7.50@8.25 per 100 pounds in New York, and \$7.90 is the price in Chicago.—In general the demand is good and the supply light. The red kidneys are dragging but white kidneys are holding their own. Foreign beans are plentiful and are sold on the buyer's basis.

BUTTER

Laboring under heavy receipts, the butter market continued weak and unsettled last week and prices declined. Dealers expect prices to continue downward until storage operators are willing to take hold. Some butter was

stored last week. Arrivals during the week of 1,100 boxes of New Zealand unsalted butter from London, and 2,150 casks of Danish unsalted were reported. Further shipments of Danish as well as some Canadian and Argentine butter are on the way. Prices on 92-score fresh butter are:

Chicago 37½¢; New York 39¢; Boston 40½¢; Philadelphia 39½¢. In Detroit best creamery in tubs sells for 37½¢@38¢.

WOOL

Steady prices on fine combing wools and an easy tone on short wools at seaboard points, steady markets abroad with but little wool available in Australia, New Zealand and Argentine, further exports, chiefly of low grades, from this country, and less talk of cancellations of orders for goods were features of the wool market last week. Buying in the west has slackened, with buyers unwilling to meet the ideas of growers. Sales at 50¢@52¢ in Montana; 40¢@45¢ in Wyoming; 45¢@47¢ in Oregon, and 45¢@57½¢ for twelve months clips in Texas have been reported.

BUSINESS PROPHETS MOSTLY CHEERFUL.

A high rate of domestic consumption of meats, dairy and poultry products, cotton and wool in the next six or eight months depends largely on the continuation of general employment at good wages which, in turn, hinges upon the maintenance of industrial and trade activity at a fairly rapid pace. Because of this relationship, the conclusions of those who analyze the underlying factors in order to forecast the course of general business have some significance for the man on the land. These prophets are not entirely agreed, but most of them are hopeful.

The Economic Service of Harvard University, for example, states that the recent "check in the business advance is to be interpreted as a temporary irregularity such as may be expected

during a period of business prosperity; and its occurrence does not change our views regarding the business outlook. We forecast a maintenance of a high level of manufacturing output and business activity, accompanied by firm or rising wholesale commodity prices and firm or higher money rates during the remainder of 1923." "At a strategic point in the upswing of business a minor reaction has occurred which will encourage caution in making commitments and will discourage speculation in commodities. These conditions should make for a healthy period of prosperous business during the remainder of the year." "The experience of previous cycles supports our forecast that the present cycle will continue its normal upward course." "Until credit stringency becomes imminent we see no basis for pessimistic opinion."

Babson also looks upon the slowing down in industry and trade as temporary and believes that the real turning point in the business cycle has not yet arrived.

Brookmire's barometer indicates that industrial stocks probably have already passed their peak and that business activity and commodity prices will reach their peaks about five months hence. But because of certain peculiarities in the situation, the fact that the change in direction has not been very decisive and the possibility that the recent wave of pessimism may correct the unfavorable conditions, the Brookmire agency points out that its barometer might reverse itself in a few months.

COMING LIVE STOCK SALES.

Holsteins.

June 14—Wm. F. Shehan, Howell, Mich.

Shorthorns.

June 7—F. M. Greenough, W. Branch, Mich.

Angus.

June 12—Michigan Aberdeen Angus Sale, East Lansing, Mich.

Herefords.

June 7—Ramsey's Sale, Atherton Station, P. M. R. R., near Harbor Beach. F. F. B. Sotham & Sons, Sales Mgrs.
 June 8—Baker's Sale, St. Clair. F. F. B. Sotham & Sons, Sales Mgrs.

Live Stock Market Service

Tuesday, May 29.

DETROIT

Cattle.

Receipts 309. Market is slow but steady.

Fancy light yearlings	9.50@10.00
Handyweight butchers	8.50@9.50
Mixed steers and heifers	8.00@8.75
Handy light butchers	7.50@8.25
Light butchers	7.00@7.50
Best cows	5.75@7.00
Butcher cows	6.00@7.00
Common cows	4.75@5.75
Canners	3.50@4.00
Choice bulls	6.00@7.00
Bologna bulls	5.50@6.00
Stock bulls	5.00@5.50
Feeders	7.00@8.00
Stockers	5.00@7.00
Milkers and springers	45.00@80.00

Veal Calves.

Receipts 520. Market is 50¢ higher.
 Best \$12.50@13.00
 Others 6.00@12.00

Sheep and Lambs

Receipts 108. Market steady.
 Best lambs \$14.50@14.75
 Fair lambs 11.50@13.50
 Light to common 6.50@9.50
 Fair to good sheep 6.50@7.75
 Culls and common 1.50@3.00

Hogs.

Receipts 1,075. Mixed hogs are 20¢ lower.
 Mixed hogs \$7.50
 Pigs 6.75
 Roughs 5.65
 Yorkers 7.60
 Heavies 6.75@7.50

CHICAGO

Hogs.

Receipts 40,000. Market is lower.
 Tops \$7.25; bulk 150@225-lb average at \$7.15@7.25; 240@275-lb average butchers \$6.85@7.10; packing sows \$6@6.15; good grades \$5.75@6.75.

Cattle.

Receipts 10,000. Beef steers steady to strong; tops at \$10.85. Several loads at \$10.25@10.80; yearlings \$10.75; the bulk of steers at \$8.75@10; she stock 10@15¢ lower; bulls steady to weak at \$5.25@5.40; calves steady; stockers and feeders slow.

Sheep and Lambs.

Receipts 8,000. Market fairly active and steady. Good California spring lambs at \$15@15.50; natives at \$15@15.25; culls \$11.50@12; native ewes at \$5.50.

BUFFALO

Cattle.

Receipts 80 cars. Market is steady. Choice to prime shipping steers \$10@10.25; good to choice shipping steers \$9@9.50; heavy fat medium quality at \$9@9.25; medium to good \$8.50@9; light native yearlings fancy quality at \$9.50@9.75; medium to good \$9@9.25; best handy steers \$8.50@9; plain at \$8@8.50; handy steers and heifers at \$8@8.25; western heifers \$8@8.50; light Michigan butchering heifers \$8@8.25; best fat cows \$6@7; medium to good \$5.75@6.25; grazing \$3.50@4.25; cutters \$3.75@4; canners good weight at \$2.25@2.50; light fat bulls \$6.50@7; best heavy bulls \$5.50@5.75; heavy bologna bulls \$5.25@5.50; common bulls \$4@4.50; best feeders 700 to 800 lbs \$7@7.50; medium feeders \$6.50@7.25; stockers good \$6.50@7; light common \$5.50@6; best milkers and springers \$80@100; common and medium at \$40@50.
 Calves, receipts 2,500. Market is steady. Tops at \$12.

Hogs.

Receipts 80 cars. Market is slow. Heavy \$7.85@8; yorkers and mixed at \$8.10@8.50; pigs \$7.25.

Sheep and Lambs.

Receipts 15 cars. Market is strong. Top lambs \$15; yearlings \$11@12.50; wethers \$8.50@9; ewes \$6@7.50.

BIG LIVE STOCK Dispersion Sale

Thurs., June 7, 1923

The Following Pure-bred and Grade Live Stock will be Sold at PUBLIC AUCTION on the Premises Known as the John Tolfree Ranch, One Mile South of the Court House at WEST BRANCH, the County Seat of Ogemaw County:

- 31 milch cows, grade Shorthorns.
- 17 pure-bred Shorthorn cows and heifers, 2 to 11 years old.
- 1 pure-bred Shorthorn bull, 4 years old.
- 5 pure-bred Shorthorn calves, 6 mos. old.
- 11 heifers, Shorthorn grades, 2 yrs. old.
- 9 heifers, Shorthorn grades, 1 year old.
- 15 steers, yearlings and 2-yr-olds.
- 30 heifers, yearlings and 2-yr-olds.
- 17 calves.
- 96 Hampshire ewes, lambs at side.
- 2 Hampshire rams.
- 60 hens.
- 13 horses, ages from 4 to 9 years, 5 mares and 8 geldings.
- 5 pure-bred Duroc brood sows.
- 8 pure-bred Duroc spring pigs.

Also all farm tools necessary to farm a thousand-acre ranch.

H. MARKELL F. M. GREENOUGH
 Auctioneer Proprietor

MICHIGAN WOOL WORTH FIFTY CENTS PER POUND.

BOSTON is today the cheapest wool market in the United States. Australian wool, bought before the advance in price, was held in bond and the duty paid as fast as sold.

This wool showed a good profit to the importers when sold at even a less price than is being paid the Michigan wool growers. This volume of wool was to be used to hold the 1923 wool crop to a lower level of prices until the latter was safely stored in the wool warehouses of Summer street in Boston. The bulletins for Boston were very bearish in tone, as were some from Chicago.

It looked like a pretty game, well planned, and the stakes were for a margin of about one pound of wool per head. Should the large dealers make that or should the farmers who cared for the flocks have that pound of wool in price?

Napoleon Bonaparte's finance minister said taxation was a science and, like picking geese, was "to get the most feathers with the least squawking."

A pound of wool taken from each fleece by means of dishonest scales, would arouse instant indignation and immediate action because it is easily detected and, in fact, a very crude way of annexing the other fellow's dollars. This method causes a great deal of squawking. However, by means of trade devices and an appearance of a large supply and constant advices repeatedly repeated, markets are lowered and little squawking is heard, because the facts are not known and the wool grower calls "the market" the price paid him. Afterward prices are advanced.

The Manchester Guardian, in the center of the English Woolen Mills district says that wool consumption is enormous. In fact, in England and the United States more wool is being used than during the war years of 1917 and 1918. There is also no excessive supply of textiles on hand and the world's wool supply is not keeping pace with the demand.

The American Wool Grower, commenting on market conditions, notes that Michigan growers have been pegging the market at fifty cents and not selling until that price was reached; on the other hand, Ohio wool growers have been more reasonable and sold around forty-five cents.

One large buyer, before the prices were advanced to fifty cents a pound, told the writer he could take in a carload every two days if he would pay fifty cents. This buyer handles usually better than 100,000 pounds of wool. On the whole, the campaign for fifty-cent wool to the grower, carried on through the Michigan Farmer, has borne fruit. At the present time there is an inclination towards paying less than fifty cents for wool. The great bulk of the wool is now out of first hands and competition is relaxing. However, wool is worth the half dollar and, sellers should stand pat.—James N. McBride, President Michigan Wool Growers' Association.

MORE HAIRLESS PIG EXPERIENCE.

THE other day, Mr. B. H. Bachelder, of Kalamazoo county, wrote thus with reference to our "Reflections on Hairless Pigs," in a recent issue:

It has been with great interest and pleasure that I have read your columns in the Michigan Farmer, and now I am writing you in regard to hairless pigs. Am very sorry to learn of your bad luck. I am a small breeder of pure-bred Duroc-Jersey hogs. I let all my old sows go and saved three young sows for spring litters, which all arrived on scheduled time, twenty-six in all, and most all hairless, all of which died.

Now, you say in all your cases your

sows have been fed skim-milk. My sows have not had any. They have had about two-fifths of a pound of sixty per cent tankage per day fed in a warm slop of clean water, wheat bran and middlings, also some ensilage, alfalfa hay, a few raw potatoes, salt, and hardwood ashes before them all the time. What do you say now?

Last year was the first of my experience feeding tankage. I had one litter of hairless pigs, these were from a young sow, my old sows had good luck and were fed the same.

My observations have been that these sows become constipated during the last two or three weeks before farrowing, causing the piles in one sow. Do you think that tankage would cause the constipation?

I am almost ready to believe that the tankage has been one of the main causes of my trouble. What do you think?

I say with the old dutchman, "The longer I live the more I find pi shimminy crouts out."

The reason why pigs are born hairless is a problem that has baffled the best students of hogology for many years. It is only within very recent years that a trace of iodine has been found to prevent it, hence the conclusion that a lack of sufficient iodine in the ration is the cause.

My individual notion is that if the brood sow is provided with a wide variety of grains, roughage and minerals, such as she helps herself to in a state of nature, it will not be necessary to feed iodine at so many grains per day. It may be the surest way, however, of avoiding the trouble in this north country of ours where the winters are long and it is difficult and in many cases impossible, to raise hogs in a way that approximates nature's way.

There must be a cause for the constipation aside from anything mentioned in this letter. The ration is plenty narrow and could be improved by the addition of a little corn, rye or barley, and always the importance of exercise, fresh air and pure water should not be overlooked.

Mr. B. has as good a reason to believe that tankage is the cause of his trouble as I that skim-milk has anything to do with it. Both have been fed to thousands of hogs with the best of results. Perhaps the correct conclusion we should draw is, that the cause and likewise the remedy lies entirely outside of these most valuable hog foods.—Pope.

COUNTY REPORTS.

Sanilac County.—Winter grain is mostly spotted. A good acreage of oats has gone in. Meadows need rain, as do all winter grains. The heavy snow storm of May 9 has helped materially in this respect. Farmers are just starting to prepare corn and bean ground. Some potatoes are moving at 80¢ per cwt. Surplus hay very well cleared up.—R. S.

Clinton County.—Wheat was winter-killed in spots. Oats and barley are all sown, and a number have planted sugar beets. Farmers are preparing ground for beans and corn. Spring pigs were a light crop. The snow storm is supplying needed moisture.—A. F. H.

Newaygo County.—Clover is looking fair, being short for this time of the year. Oats are all in, and plowing for corn and beans is well under way. A few sugar beets are being sown in this section for the first time this year. Wheat is bringing \$1.10; potatoes 60¢ per cwt.; corn 70¢ per bushel.—E. F.

Luce County.—Oat sowing in this section was nearly thirty days late. Potatoes are coming out of the pits in good shape. Prices are from 50¢ to 60¢ per bushel. No grain of any kind for sale here now. Fall grains are looking fine.—E. C. U.

Gratiot County.—Wheat suffered from ice during the past winter. The spring grains are all in, and many sugar beets are planted. A good many farmers have bought tractors this spring. The snow storm has supplied moisture which we farmers were in need of. Wheat is selling at \$1.20; oats 45¢; beans \$6.50 per cwt.—A. R.

Montmorency County.—Wheat in this locality was never better. Oats were gotten in a little late. Acreage, however, will be larger than usual. Potato plantings will be small.—J. K.

KEEP BEES

Complete Beginner's Outfits with or without bees. Full line of Beehives, Sections, Comb Foundation, Smokers, etc. General Agents in Michigan for the A. I. Root Co. Send for 1923 catalog. Beeswax Wanted.

M. H. HUNT & SON,

Box 525,

Lansing, Mich.

Please Mention The Michigan Farmer When Writing to Advertisers

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results under classified headings. Try it for want ads and for advertising miscellaneous articles for sale or exchange. Poultry advertising will be run in this department at classified rates, or in display columns at commercial rates. Rates 8 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 6 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order. Real estate and live stock advertising have separate departments and are not accepted as classified. Minimum charge, 10 words.

Rates in Effect October 7, 1922

Words	One time	Four times	Words	One time	Four times
10	\$0.80	\$2.40	26	\$2.08	\$6.24
11	.88	2.64	27	2.16	6.48
12	.96	2.88	28	2.24	6.72
13	1.04	3.12	29	2.32	6.96
14	1.12	3.36	30	2.40	7.20
15	1.20	3.60	31	2.48	7.44
16	1.28	3.84	32	2.56	7.68
17	1.36	4.08	33	2.64	7.92
18	1.44	4.32	34	2.72	8.16
19	1.52	4.56	35	2.80	8.40
20	1.60	4.80	36	2.88	8.64
21	1.68	5.04	37	2.96	8.88
22	1.76	5.28	38	3.04	9.12
23	1.84	5.52	39	3.12	9.36
24	1.92	5.76	40	3.20	9.60
25	2.00	6.00	41	3.28	9.84

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

MISCELLANEOUS

MILLIONS "Frostproof" Cabbage Plants. Copenhagen, Wakefields, Succession, etc., 300, \$1.00; 500, \$1.25; 1,000, \$2.25, mailed prepaid. Express 10¢. \$15.00. Tomato and Sweet Potato Plants, 300, \$1.50; 1,000, \$1.75; 1,000, \$3.00 prepaid. Express 10¢. \$20.00 cash. Guaranteed safe arrival anywhere or money refunded. Don't take chances. Order from largest growers in Virginia. J. P. Council Company, Franklin, Virginia.

LEAF TOBACCO. Five pounds chewing \$1.75; ten, \$3.00; twenty, \$5.25; five pounds smoking \$1.25; ten, \$2.00; twenty, \$3.50. Pipe and Recipe free. Send no money, pay when received. United Tobacco Growers, Mayfield, Ky.

NATURAL LEAF TOBACCO. Chewing 5 lbs., \$1.75; 10 lbs., \$3.00. Smoking 5 lbs., \$1.25; 10 lbs., \$2.00. Pay when received, pipe and recipe free. Farmers Co-operative Tobacco Union, Paducah, Ky.

FOR SALE. Fordson tractor, farming implements, almost new, 1 double tandem disc harrow, 1 double bottom plow, 1 30-inch buzz saw, with tilting table, brand new. Cash or terms, write or call Walter A. Kyda, Currie School Road, Wayne, Mich.

CABBAGE, TOMATOES AND PEPPER PLANTS. Field grown, any variety, 100, 60¢; 300, \$1.25; 500, \$1.75; 1,000, \$2.25 postpaid. All plants packed in moss. Satisfaction guaranteed or money refunded. THE DIXIE PLANT COMPANY, FRANKLIN, VA.

MONEY TO LOAN ON FARMS. 6% interest. No commission. No mortgage tax. Security Mortgage Corporation, 1018 Majestic Building, Detroit.

SWEET POTATO PLANTS.—250 Red Jersey, 200 Nancy Hall; or 100 each, \$1.00. Postpaid. Robert Bennett, Grandview, Indiana.

MONEY to loan on first class central Michigan farms. 5% per cent net to Co. amounts of \$5,000 and up. Convis & Smith, Ithaca, Mich.

STOVINK Blackens Hot metal. Buy of your dealer. Distributors, Standart Bros., Detroit.

DOGS

GERMAN Shepherd. Airedales, Collies; Old English Shepherd dogs; Puppies; 10¢ illustrated instructive list. W. R. Watson, Box 35, Macon, Mo.

COLLIE PUPS. Eligible Farm Raised. Dunnewind, Comstock Park, Route 1, Michigan.

POULTRY

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 lopped combs. "Lay-bill" in every way. Also breeding cockerels. Satisfaction and more, or money back. Morse White Leghorn Farm, Belding, Mich.

Evergreen Poultry Farm won the silver cup at the M. A. C. Laying contest for highest winter production with their (Bred to Lay) White Wyandottes. Put the lay in your flock with some of this blood. It will pay. Eggs \$3 for 15; \$8 for 50; \$15 for 100. ¼ off after June 1st. Blanding & Sons, Dept. B, Greenville, Mich.

RHODE ISLAND REDS.—Rose Comb Cockerels, hen-hatched, farm raised. Big, thrifty dark colored birds from prize winning strains. \$4 to \$7.50. Two specials at \$10 each. Careful attention to mail orders. Bidwell Stock Farm, Tecumseh, Michigan.

S. C. BLACK MINORCAS. Northrup Strain. Heavy Stock Eggs, \$1.50 for 15; \$8 per hundred. Baby Chicks \$20.00 per hundred. C. J. Deedrick, Vassar, Mich.

RHODE ISLAND REDS.—Single comb, 200 egg strain, rich, dark red, 20 years a breeder. Eggs \$2 per 15; \$5 per 50; \$10 per 100; prepaid. H. W. Schultz, Route 1, East Lansing, Mich.

ROSE COMB Rhode Island Reds. Hatching egg \$1.25 per setting. Postpaid. Mrs. Albert Harwood, R. 4, Charlevoix, Mich.

50 Giant Black Minorca Cockerels \$2.25. Eggs \$8.00 per 100. Mike Schaefer, Essexville, Michigan.

ATTENTION POULTRY RAISERS

Why sell your nice fresh eggs to carlot shippers, instead of getting full value by shipping direct to Boston market and netting 5 to 7 cents a dozen more? Have your name put on our quotation list, and see the difference in price. We send checks immediately on receipt of goods, and charge no commission. References National Shawmut Bank, Boston, Dun or Bradstreet's Commercial Agencies. McArdle Live Poultry & Egg Co., Boston, 16, Mass.



INSIDE TYRES

Inner Armor for auto tires. Prevent blowouts and punctures. Double fire mileage. Easily applied to any tire between casing and tube. Details free. Agents wanted. Liberal profits. Amer. Accessories Co., Dept. 159, Cincinnati, O.

BARRED ROCK Hatching Eggs. Parks 200-egg strain, \$2.00 per 15, \$5.00 per 50, \$10 per 100 by prepaid parcel post. R. G. Kirby, Route 1, East Lansing, Mich. **CHICKS.**—White Wyandotte and White Rock, \$13 per 100; \$9.50 for 50 and \$4.75 for 25. R. I. Reds and Barred Rocks, \$17 per 100; \$8.75 for 50, and \$4.50 for 25. White Leghorns \$12 per 100; \$6.50 for 50 and \$3.25 for 25. Order from this ad. Terms cash, with order. Reference, Bank of Mt. Morris, Mt. Morris, Mich. 100% live delivery guaranteed. Meadow Brook Hatchery, Mt. Morris, Mich.

BABY CHICKS

PROFITABLE CHICKS.—Reduced prices, high quality. Selected heavy laying strains—Leghorns, Rocks, Reds, Minorcas, Wyandottes, Orpingtons, Sheppard's Anconas. 100% delivery. Catalog free. Bank reference. Geneva Hatchery, Box 604, Geneva, Indiana.

QUALITY BABY CHIX. Now booking orders for June delivery of our very Best Eng. W. Leg. and Ancona chicks at 10¢ each for early June and 9¢ for later June. Special Price on 1000 lots. Write for catalog, or order from ad. Model Poultry Farm, R. 4, Zealand, Mich.

BABY CHICKS bargain prices. Barred Rocks, White and Brown Leghorn. Guarantee full 100% alive, free delivery. Hillview Poultry Farm Hatchery, R. 12, Holland, Mich.

BABY CHICKS.—White Wyandottes, White Plymouth Rocks, Barred Rocks, Buff Rocks, Buff Orpingtons, R. I. Reds, White Leghorns. Durand Hatchery, Fenton, Mich., Box 404.

LOOK 75,000 Hi-Grade Chicks 12 and up. 10 varieties. Best ever produced. Hatching eggs. Circular. Lawrence Poultry Farm, R. 7, Grand Rapids, Mich.

BABY CHICKS. 15 Leading varieties. 2½ Million for 1923. The kind that lay early. Large, vigorous, fluffy kind. Lowest prices. Send for large catalog. D. T. Farrow Chickeries, Peoria, Ill.

BABY CHICKS.—Remarkable for size and strength. Reasonable prices. Leghorns, Anconas, Rocks, Reds, Wyandottes, Orpingtons, Minorcas, Spanish, Brahmas. Tyrone Poultry Farm, Fenton, Mich.

BABY CHICKS.—Six leading varieties. Write your wants. Special prices on large, advance orders. Free catalog. H. H. Pierre, Jerome, Mich.

QUALITY CHICKS. Price cut. Leghorns, 10 cts., Rocks, Reds, Orpington, W. Wyandottes, 12 cts. Free delivery. 32 page cat. free. Missouri Poultry Farms, Columbia, Missouri.

EGGS THAT HATCH. Chicks that live. Low prices. Won over 5,000 prizes. Furnished Government and schools. Catalog free. Sterling Poultry Farms, Box 30, Sterling, Ill.

STURDY CHICKS.—Pure bred-to-lay flocks single comb White Leghorns, Anconas, Reds, White Wyandottes, Pekin Ducks; catalog. Sunnybrook Poultry Farm, Hillsdale, Mich.

BARRED ROCK CHICKS only. Prices reduced May 15. Bred to Lay, Contest Winners. Use all Pedigreed Males. Aseltine's Hatchery, R. No. 1, Grand Rapids, Mich.

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BABY CHICKS.—June delivery. Barron White Leghorn \$10 per 100. Barred Rocks, Red \$12. Odds, ends 9¢. July, 50¢ per 100 less. Gore's Poultry Farm, Cornum, Mich.

BARRED ROCKS.—Eggs and baby chicks from Silver cup winners. Eggs \$2.00 per 15 delivered by P. P. Circular free. Fred Astling, Constantine, Mich.

STERLING QUALITY CHICKS.—14 varieties. Strong liveable chicks. Catalog free. P. F. Clardy, Box 6, Ethel, Mo.

CHICKS.—English S. C. W. Leghorns \$10 per 100. Barred Rocks \$15 per 100. Live delivery guaranteed. Waterway Hatchery, R. No. 4, Holland, Mich.

SELECTED CHICKS from best strains. Extremely low prices after May 25th. Write for circular and price list. Litchfield Hatchery, Litchfield, Mich.

BABY CHICKS.—Reds, Orpingtons and Rocks, 11¢. Leghorns 10¢. Ivy Vine Hatchery, Maplehill, Kansas.

HELP WANTED

WE WANT LIVE WIRE FARMERS OR DAIRYMEN in every community to take orders for "Fly-Kill" the new dairyman's fly killer and repellent. Sells itself when shown. Gas is death to flies but sweet smelling and has no effect on animals or men. Our agents make from \$50.00 to \$300.00 per week. No capital or experience required. Write quick, giving age, reference and territory desired. Address: "Fly-Kill" Division, 2361 Hampden Ave., Saint Paul, Minn.

WANTED.—At popular summer resort, experienced capable woman who, with proper help, can cook for 30 to 40 persons. June 20-Sept. 15. John A. Van Deman, Benlah, Mich.

YOUNG MAN AND WIFE want work on farm. Capable of taking charge, practical in every way. Had expert training and know business. Sober, industrious. Peter Olsen, 2325 Cass Ave., care The Niemetta, Detroit.

To the Man who owns—

a Buick

Your Buick engine, because of its large reserve horse power and efficient cooling system, operates at comparatively low temperatures.

With Buick valve-in-head construction the cooling area of the combustion chambers is relatively small. This, together with compression pressure of 75 lbs. makes this engine sensitive to any appreciable carbon deposits, particularly in view of the present day fuels. Where excessive carbon deposits exist, "pinging" or knocking results. To minimize carbon deposits under these conditions, your engine requires a well refined, clean burning oil which will be thoroughly distributed by the lubricating system.

For all Buick models (except 1923) use Gargoyle Mobiloil Arctic both summer and winter.

The 1923 Buick engine differs from previous models, in so far as lubrication is concerned. The splash troughs are covered, leaving a slot through which the splash dipper passes to project the lubricant. This baffled splash trough design appreciably reduces the quantity of oil distributed so that the lubricating oil will not splash to the cylinders in excess quantities or reach the combustion chambers too freely.

The two center crankshaft bearings are supplied with oil under pressure.

These changes in the 1923 Buick construction permit the use in summer of an oil heavier in body and richer in character than heretofore without the possibility of objectionable carbon accumulations.

Hence, for the 1923 Buick, Gargoyle Mobiloil "A" in summer and Gargoyle Mobiloil Arctic in winter will insure correct lubrication.

a Willys-Knight

Your Willys-Knight engine, due to its *sleeve valve construction*, operates at high piston temperatures. Heat in internal combustion engines must be transferred from the piston through the cylinder wall to the cooling water in the water jackets.

Unlike the poppet valve engine which has its piston rings in direct contact with the oil film on the cylinder walls, the Knight type engine must transfer its piston heat through *two sleeves and three oil films* before it reaches the cylinder walls to be absorbed by the water in the cooling system.

Retarded heat flow means higher piston, piston ring and sleeve temperatures. Heavier oils are required to meet this heat condition. Gargoyle Mobiloil "B," which is heavy in body and possesses unusual heat resisting qualities, adequately meets this condition in summer temperatures.

Oils of lighter body or inferior quality will not withstand these high piston and sleeve temperatures. "Dry spots" are liable to occur and lead to scoring of pistons, sleeves and cylinder walls.

Winter Lubrication: Cold weather material reduces the operating temperatures and emphasizes the need for ease in starting and thorough oil distribution under low temperatures.

The large frictional areas in a Knight engine, together with the location of the oil pump above the oil level (except 1923 models) are factors of importance in determining the correct oil for winter.

Gargoyle Mobiloil "A" possesses greater fluidity under low temperatures, and will be distributed by the lubricating system in winter weather.

Its use permits easier sleeve action and affords adequate lubrication of the sleeves and pistons.

For Willys-Knight lubrication, therefore, use Gargoyle Mobiloil "B" in summer and Gargoyle Mobiloil "A" in winter.

a Ford

In design, construction, operation, and lubrication, the Ford is unique. The engine oil must adequately and efficiently lubricate both transmission and multiple disc clutch.

In Ford engine lubrication the following points must be considered:

- (1) The Ford connecting rod bearings have no oil holes or oil grooves, nor are the lower ends of the connecting rods equipped with oil dippers or splashes. Hence the need for oil which atomizes readily and distributes freely throughout the entire bearing area.
- (2) The Ford pistons over-run the valve seat level. Any excess of oil carried up by the pistons readily finds its way onto the valves and seats. Hence the need of a clean-burning and non-carbon forming lubricant. Otherwise gumming of the valves results.
- (3) The Ford Planetary transmission operates in a bath of engine oil. The close-fitting sleeves and bushings demand a free-flowing oil of correct body to insure thorough distribution to these parts.
- (4) The Ford multiple disc clutch operates continually in a bath of engine oil. A free-flowing oil of the correct body and character is necessary to assure positive, quick engagement with no slipping and an instantaneous release of the clutch without dragging.
- (5) Chattering of Ford transmission bands comes from incorrectly adjusted bands or worn out linings, and is aggravated by unburned fuel mixed with the lubricating oil. In such cases the diluted oil should be replaced with fresh oil and the bands correctly adjusted or the linings renewed. To attempt to remedy such mechanical conditions by the use of so-called "anti-chattering" oils containing foreign material which may separate, or lard oil, wool grease or other animal fats which decompose under heat, is obviously wrong and likely to cause gumming of the valve stems, carbon deposits and other troubles.

Gargoyle Mobiloil "E" is free from foreign material or animal fats. It is of the correct body, character and fluidity and especially manufactured to scientifically meet the exacting requirements of Ford cars both summer and winter.

If your car has not been mentioned here, see our complete Chart of automobile recommendations. Garages and dealers have this Chart on their walls. It appears also in our booklet "CORRECT LUBRICATION," which we will gladly send you on request. Address our nearest branch.

a Chevrolet 490

Your Chevrolet 490 engine is of valve-in-head construction and designed for high compression pressures of approximately 87 pounds.

The lubricating system is of the splash circulating type. The gear type oil pump is in an exposed position directly in back of the radiator, and is considerably above the level of the oil in the reservoir. There are long lengths of exposed oil piping on both the suction and discharge sides of the pump.

All engine parts except the centre crank shaft bearing are lubricated by an oil mist caused by the dipping of the connecting rod splashes in

the oil troughs provided under each cylinder. Oil is forced under pressure to the centre crank shaft bearing.

Carbon deposits in this engine, because of the high compression pressures and combustion chamber construction, are particularly objectionable. Correct lubrication is essential to the maintenance of high efficiency. Gargoyle Mobiloil Arctic will leave a minimum of carbon deposits, and is of the correct body and character to provide adequate engine lubrication under all operating conditions.

The use of Gargoyle Mobiloil Arctic both summer and winter will assure correct engine lubrication and lead to the satisfactory performance you have a right to expect of your Chevrolet.

Don't say, "Give me
a quart of
oil."

Ask for



WARNING!

Don't be misled by some similar sounding name. Look on the container for the correct name *Mobiloil* (not *Mobile*) and for the red gargoyle.

Don't believe false statements that some other oil is identical with Gargoyle Mobiloil. Gargoyle Mobiloil is made only by the Vacuum Oil Company in its own refineries, and is never sold under any other name.

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