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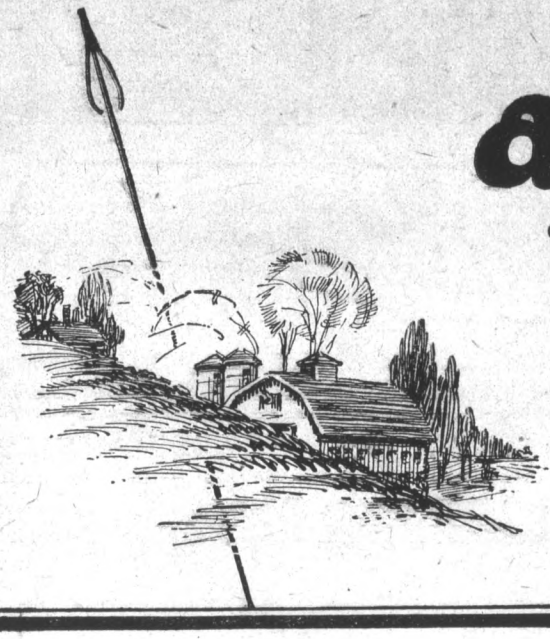
DETROIT, MICH., SATURDAY, FEBUARY 7, 1925

ONE YEAR $1.00
FIVE YEARS $3.00

"Taking the Air"

THE WORK SHOE WITH THE DRESS SHOE FINISH



a real work shoe

—yet dressy enough for town

627—Men's Tan Sampson Upper, Single Oak Sole, Welt, Full Vamp, Soft Toe, Grain Insole, Leather Counter, Grain Gusset, Munson Last.

THOROGOOD shoes for everyday use set new standards in looks—and in value. With the appearance of *Thorogood* shoes in the stores of discerning shoe dealers, came a new and decisive step in shoe making and retailing.

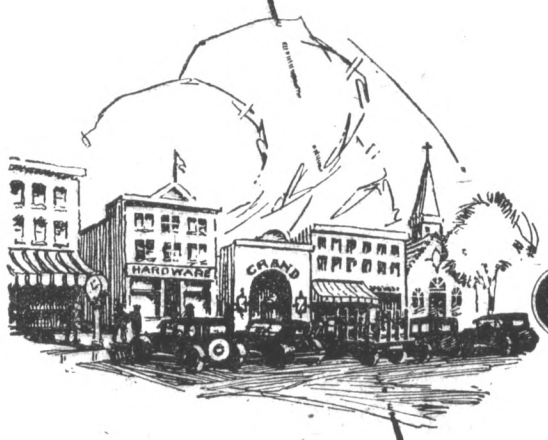
For these shoes were so well designed—so finished in their style and appearance—and so superior in their workmanship and quality, that they came to be known as "the work shoe with the dress shoe finish".

For the first time the requirements of the modern farmer in shoes are squarely met. *Thorogoods* are honest shoes, splendidly made by an experienced organization. They have all the old time wearing qualities yet have, in addition, gained the elements of style and finish that all workshoes formerly lacked.

Why you get more value in Thorogoods

The next time it's handy ask to look at a pair of *Thorogoods*. Look at the top grade flexible oak soles whose natural finish can hide no imperfections of fat wrinkles in the leather. See the way the stitching is sunk to protect it from wear. Notice the extra nails to reinforce the shank of the instep where most weight falls. And when leather heels are preferred note the heavy iron slugs to give you double wear.

Then run the upper leathers between thumb and forefinger to get the feel of it. Only double tanning of high grade stock, dressed and redressed with pure oils could give that soft pliability: yet so tough as to be proof against all perspiration or barn yard acids. All the qualities of good shoes are here, in *Thorogoods*: good looks, good wear and comfort. Yet their cost is no more than ordinary shoes.



Thorogood
REG. U.S. PAT. OFF.
SHOES

No. 630—Men's Tan Sampson, Welt, Single Oak Sole, Plain Toe, Leather Counter, Grain Gusset, Rubber Heel, Proudfit Last.

No. 605—Single Oak Sole, Goodyear Welt, Chocolate Elk Uppers, Moccasin Vamp, Leather Counter, Rubber Heels.

This real work shoe is manufactured by
ALBERT H. WEINBRENNER CO.
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THE SAME SHOE FOR THE FARM OR TOWN

DEVOTED TO MICHIGAN

VOLUME CLXIX

MICHIGAN FARMER AND LIVE STOCK JOURNAL. PUBLISHED WEEKLY. ESTABLISHED 1843.

A Practical Journal for the Rural Family

MICHIGAN SECTION THE CAPPER FARM PRESS

QUALITY RELIABILITY SERVICE

NUMBER SIX

Economics of Egg Production

A Discussion of Some of the Essentials of Profitable Poultry Raising

By E. C. Foreman

Egg Basket Queen's Keen Head.

PRODUCTION efficiency is the keynote of our most successful agricultural and industrial enterprises. Competition, fostered by the aggressive spirit of the times, demands greater efficiency of production in the race of the survival of the fittest.

Profits from poultry, as in any other line of production, are determined by the margin or spread between cost and net selling price. The highest type of efficiency, therefore, if measured in dollars and cents, demands a full appreciation of both the problems of production and the economics of marketing.

Fortunately, the marketing of poultry products is not a serious problem. In fact, the difficulties seem to arise in getting enough products to market.

In analyzing the market reports of egg prices over a period of years, we are confronted with the fact that during six months in every year high average prices prevail. This period extends from September until March. During the balance of the year, egg prices are relatively low. Unfortunately, "Biddy" does not recognize this existing egg price schedule, if her actions are a reliable indication, because she does not show a great deal of interest or ambition in the more important business of egg production until the egg prices have shrivelled. The dispute as to her knowledge of this existing price schedule is still unsettled, as many farmers contend she is fully aware of scarcity of her product with its corresponding high prices and that her production reticence is due to a very eccentric disposition. Other poultrymen, however, exonerate "Biddy" and argue that this flexible price law is controlled entirely by supply and demand.

Admitting that "Biddy" is more or less eccentric in the matter of fall and winter egg production, ways and means must be devised to induce her to spread her production so that a large percentage of her annual output will come during the season of high egg prices.

Something is radically wrong either with the breeding of the average Michigan hen or our methods of winter management, because the flock production in March is six times greater than it is in December.

The trend of egg prices is the barometer of farm flock production. When eggs are high, farm hens generally are not laying and the bottom drops out of the egg market as the spring fever takes grip of the flock. This seasonal variation in the scale of egg prices is simply a reflection of a very inefficient and indifferent system of poultry management.

The commercial egg farmer, as a rule, is very successful in getting a profitable egg yield with flock averages of fifty to sixty per cent production during the winter months commonly occurring.

The egg price schedule is not very extensively influenced, however, by the products of the commercial egg farm, as the farm flocks contribute approximately ninety per cet of the nation's egg crop. This fact should erase all doubt and worry concerning the likelihood of an over-production of market eggs, and moreover, is highly encouraging to the interested poultryman who stands ready and willing to make a business of egg farming.

Michigan egg markets are among the best in the country, and will return a satisfactory profit if the flock production can be regulated so that a better seasonal distribution of eggs occur.

Our chief concern after all, is economic production. Eggs should always be considered the most important cash crop, and the revenue collected from broilers and market stock incidental to the major operation of production.

Financial success is determined almost exclusively by high or low flock production averages and not by the

(Continued on page 172).

Prof. E. C. Foreman has selected more winning contest pens of a greater number of breeds than any other man in America. These pens include Barred and White Rocks, Rhode Island Reds, White Wyandottes, White Leghorns and Anconas which have won in Ontario, Connecticut, Missouri, Michigan, Illinois, New Jersey and other contests. He has also trained judging teams for three years, which have either had high man or highest team score in the Intercollegiate Judging Contests. Professor Phillips, of Purdue, said that Foreman-trained teams are the best that ever appeared in the contests.

Breeding Shows on the Ledger

Barnyard Queen.	Monthly Produc.	Price Per Doz.	Returns	Which?	Egg Basket Queen.	Monthly Produc.	Price Per Doz.	Returns
Nov.	0	$0.50	$....		Nov.	16	$0.50	$0.66
Dec.	0	.60	....		Dec.	23	.60	1.15
Jan.	0	.60	....		Jan.	26	.60	1.30
Feb.	1	.40	.04		Feb.	22	.40	.74
March	11	.30	.28		March	22	.30	.55
April	14	.24	.28		April	25	.24	.50
May	19	.24	.38		May	27	.24	.54
June	21	.24	.42		June	28	.24	.56
July	17	.24	.34		July	28	.24	.56
August	0	.30	....		August	25	.30	.63
Sept.	0	.36	....		Sept.	22	.36	.62
Oct.	0	.48	....		Oct.	21	.48	.82
On 82 eggs		....	$1.74		On 285 eggs		....	$8.67
Feed cost		....	1.60		Feed cost		....	2.00
Net income		....	$0.14		Net income		....	$6.67

Take your choice of one 285-egg hen, or forty-eight eighty-two-egg hens. The profit is the same, if you have lots of time to spare and house room available.

Zero Weather Chick Brooding

Some Practical Suggestions on Caring for Early Chicks

By R. G. Kirby

FOR the protection of the early hatched chicks the poultryman must be prepared for zero weather and high winds. If the equipment will stand such conditions without injury to the chicks there will be little to worry about on the still sunny days or the nights when the temperature is not far below freezing.

These early hatched chicks are worthy of protection. They are hatched from eggs produced by winter layers. The fact that they do hatch proves that they are apt to come from vigorous stock. They grow into broilers when prices are highest. The pullets are fine prospects for winter layers. Most of the early hatched chicks will be large enough to rustle on the range when spring conditions are good. When everything is conducive to the development of bird life the chicks gather an abundance of worms, bugs, and tender bits of green feed.

If the early hatched chicks obtain the right start, a lot of worry is taken out of the poultry business for the entire season. I find that coal burning brooding stoves are the best. They insure an abundance of heat at all times. Some poultrymen have success with oil burning brooders by operating them in a room which receives some warmth from a coal stove. In general the oil burning brooders do not give as good satisfaction as hard coal burners for zero weather.

I find that chestnut coal is the best fuel. Coke gives a hot fire but burns rather rapidly and there is danger of the fire going out on a windy night. I have used a mixture of coke and hard coal, but did not find it as good as hard coal alone. Some brooders are equipped to burn soft coal, but this fuel increases the risk and the stoves require more attention to obtain a uniform heat.

I find it pays to shake down the fire both morning and night and keep the stove free from clinkers. On very cold days allow the fire to work down in the afternoon until you can see the glowing coals. Then you know how much fire you have in the stove and whether it is burning evenly clear across the grates.

At sundown there is plenty of room in the stove for a large quantity of fresh hard coal. When this is added you know there will be sufficient fuel to last until morning. This is important on windy nights when the stoves may burn more briskly than usual and exhaust a scant supply of coal before morning.

Beginners with brooder stoves often have good luck the first week, followed by a dead fire some night during the second week. This is often caused by allowing the ashes to accumulate around the edges of the stove until the fire is choked out. A long poker is useful at times to stir up the fire and loosen any clinkers that have formed.

Keep Chicks Near Stove.

When the chicks are first placed near a brooder stove they do not understand the source of the heat and may wander into the corners of the brooder house and become chilled. A piece of galvanized hardware cloth about a foot high can be extended around the stove about one foot from the edge of the deflector. The ends can be joined with a bit of wire. After three or four days the chicks will know enough to return to the stove when

(Continued on page 171).

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VOLUME CLXIX NUMBER SIX

DETROIT, FEB. 7, 1925

CURRENT COMMENT

Ups And Downs

NEARLY all of us have reconciled ourselves to the idea that life is not stable. If it be calm today, we expect that it will be stormy tomorrow. Never in this life do we arrive at a point where we expect our individual affairs of all succeeding days to move along perfectly.

But, it would seem that many persons carry the idea that, in a cooperative institution, if they just get by some present difficulty, all will be well; then they can forget that they are members, except when dividends are to be distributed.

True, vaccination wards off smallpox, and the swine are immunized against cholera; but these facts do not argue that a human institution, like a cooperative, can be immunized against mismanagement, or attacks from without, or lack of funds. Some day insurance against these things might be had; but not now.

Like a healthy neighbor who, having run through three score of years without a sick day, took the position that his strong and rugged constitution could withstand whatever came. But, one day the doctor was called and this man was advised to fix up his papers.

So, if you belong to a cooperative that is having clear sailing, do not become careless in your membership responsibilities. Adversity creeps into silent places. When least expected every species of support may be required to keep the institution going.

Too many so-called cooperative members are like the Dutch fisherman who, when the sea was calm, tied his rudder, put on a full sail, got drunk and went to sleep.

Everlasting vigilance on the part of members is the safest insurance against cooperative ailments, for, while it will not avoid them entirely, the resistance of an active, well-informed membership is high.

It Pays To Grade

WE have many evidences that the better grading the Michigan potato shippers are doing is having results. Michigan potatoes no longer sell at a discount as compared with spuds from other producing sections. The quotations of the eastern markets show this. However, we have a local market which also shows well the value of putting out quality goods.

The figures recently issued by the Detroit Municipal Bureau of Markets are interesting. For instance, in the year 1920-1921 the total receipts of potatoes in Detroit, including early potatoes, were 2,451 cars. Of this amount, 1,226 were from Michigan. However, in November, 1924, Detroit received 398 cars, of which only five were from outside the state. In December, the receipts were 280 cars, with the small number of three coming from the outside.

Our state markets want quality, and if they can not get it at home, they go outside for it. That is why there are so many western apples selling on Michigan markets. When apples, and other fruit and vegetable products, are put under strict compulsory grading regulations, we will find more native products on our markets.

Compulsory grading restrictions will go a long way toward solving the marketing problem which confronts Michigan producers, for we will always have people careless enough to put up a nondescript package and get whatever the nearby markets will give them.

Compulsory grading restrictions will swallow. It seems autocratic. The idea of somebody dictating how our fruit should be packed; it's our fruit and we should be allowed to do what we please with it.

It may seem autocratic but it is one of the beneficial autocratic things of democracy, for its benefits will be greater than what is obtained under the "do as you please" plan. Therefore, we feel sure that most of us will, in due time, come to realize the value of good grading laws instead of chafing under their enforcement.

The Poultry Plague

IT seems there is always something to contend with. As soon as we get one thing under control, another seems to pop up. Just now it seems that the poultry plague is going to rival the foot-and mouth disease in seriousness, and will be a co-star with the corn borer in the present drama which might be called "The Battle Against Diseases."

Like the corn borer and many of our other pests this new plague is an immigrant. It comes here and finds new liberties. It is not hampered by parasites which keep it in check at home. Thus, it goes to excess in this new liberty and causes serious trouble and loss.

The poultry plague will be a nuisance for a while, like all of our other pests. But the mere fact that it is a nuisance, makes it a problem which will be solved. We never yet have had a pest problem which has not been brought into control.

In the meantime it is going to mean embargoes; it will mean restriction and loss, but these things are a part of the price of war against plagues. If all will be good soldiers and do their part, the battle will be shortened considerably. Let's not be slackers, in what the generals deem the best campaign in fighting this plague.

Fight The Borer

ANOTHER column of this issue carries an account of a conference recently held to consider measures for the control of the European Corn Borer in Michigan. The rapid spread of this immigrant pest within our state certainly calls for the immediate inauguration of drastic measures by the individual, community, state, and nation.

Delay is the most expensive course that can be taken. Every time we permit another generation of eggs to hatch we have, instead of one larva, a hundred or more to deal with. If we desire to cut expenses and save losses in this fight, we should handle this insect roughly from the first.

At the very mention of the depredations of this insect, hands go up in despair. Many seem struck dumb at the very thoughts of facing the enemy, and give up without a struggle. A fear possesses them that kills all ability to fight.

But this is a situation where we must do or die. Here is a place where meditative action furnishes the food of hope. If we resolutely go about the fight to restrain this pest, it will not be many years before it will be looked upon in the same way as we now watch the potato beetle. But, if we do not become militant at once, the chances are that in a few years little corn will be left to warrant a campaign.

The first fight is to secure needed legislation. This legislation should make it possible to clean up badly infested places regardless of the shiftless or obstinate person. It should also provide the necessary working funds.

The fellow whose fields are now free of the pest, is, or should be, equally as interested in fighting the pest as is the other fellow, whose fields are now infested; while the consumer above all others, ought to support the measure out of his own personal advantage. Let us hope, therefore, that there may be no delay in getting every needed agency behind a campaign to control or oust this menacing pest.

Our Imaginary Ills

NO person of sense will deny the part imagination has played in the progress of the race. Over a century ago Napoleon, at the very height of his power, declared that imagination rules the world. This thing which is so delicate that words often wound it, creates for us beauty, happiness and justice.

But, there is another side. The imagination may also lead us into undesirable ways. Doctors tell us that many of the supposed ills of the body are merely the workings of the imaginative side of the mind. They tell us, too, that these things are cured by getting the mind centered on something real.

We have just been wondering, upon reading from our Washington Correspondent that "Congress will do little if anything at this session with the various agricultural bills awaiting action," whether possibly so dignified a body as the congress of the great American Republic might not be waxing desperate with imagination.

Too well do we know that the world of reality has its limits while the world of imagination is boundless. Could it be possible that our lawmakers step too frequently from the realm of reality to those boundless regions of the imagination. President Coolidge is reported to have said, that it is possible for congress to dispose of some needed agricultural legislation during the present term. Possibly some of the much discussed imaginary ills of the country would disappear, if congress would, for a short time, give itself over to the consideration of some of the real problems of agriculture. At least, little could be lost by the experiment.

About Internal Friction

A LITTLE newspaper "filler" gives the following information: "Internal friction rather than that due to impact with the roadbed wears out most automobile tires."

That is interesting and to the casual reader may seem absurd. But be that as it may with reference to automobile tires, there is truth in the statement as appled to other things of life.

There is internal friction in many things. In cooperative organizations, for instance, it often raises hob with the success of that organization. In churches it exists where peace, and progress in the Christian spirit should be the uppermost. It is frequently found in granges, farm bureaus, neighborhoods and in a great many families.

This internal friction is almost entirely due to the fact that some of those concerned have allowed selfish impulses to blind them to the greater, the creative purposes of the organization, be it a business or a family. They enlarge upon pretty things and thus divert the attention from the real purpose.

However, it is not only in organizations that there is friction, but it exists in individuals. In millions of human breasts there is strife because petty selfish things seek expression. The battle of human hearts is greater than any war ever fought. It is a battle which will continue to rage as long as a human heart beats. Only those who have gained the insight, or the spirit, of the great purposes of life know the calmness and harmony of real living. Religion brings it to some; philosophical thought to others, but countless people die without knowing it.

Before any purpose, either of an individual, or of an organization, can be brought to its highest usefulness, the friction within must be replaced by harmony. Then the full strength of the purpose can be used in contact with the roads that the purpose has to travel.

The world is always in need of more harmony specialists who will work to conserve the human energy now wasted through friction and discord.

Oughto Show

NOW, I don't know what they ought to show, but I kin tell you what they did. Well, the first thing me and Sofie had to do the showin'. They made us show seventy-five cents a piece ta get in. Childrun was free, and I had Sofie take me by the hand, but it wouldn't work.

Wenn, when you get in, you see a lotta those gasoline go-carts settin' on platforms, like the King o' Spain, with all the fumididles and everythin'. And them busses with glass windows what look like show cases fer ta put in the freaks what will be in them some day, was just as shiny and slick as the King after his helpers has given him a bath and put his clothes on.

There's lots o' them slick young salesman around what's got hair just as shiny as them oughtos, what encounters you. He talks apple sauce ta you and you act like you understand all about it. But, what got me was the idea o' them fellows chargin' me 75c ta get in where they could get a chance ta sell me somethin'. I ain't used ta payin' fer ta be sold ta.

But anyhow, when I got through, I just didn't understand them new-fanguled buggies. Them salesmen tell you so much you begin ta think you need a engineer ta run one.

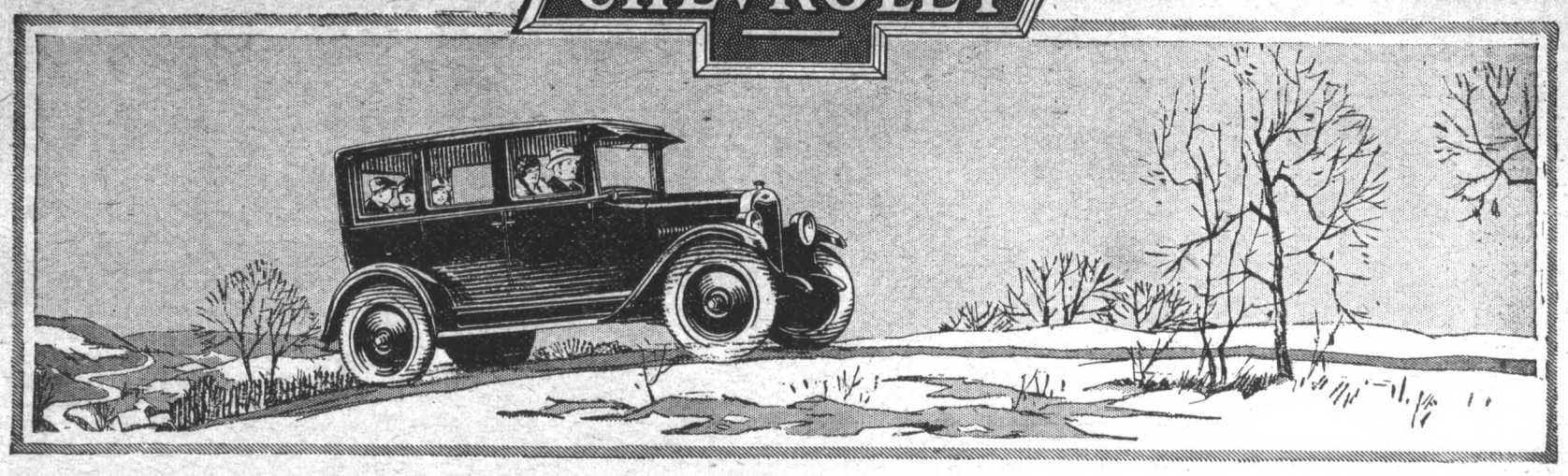
But, I'll tell you this, I understand Old Ironsides. And when I got back home I just went into the barn just ta see the old boy. Me and Ironsides is had lots o' times tagether. We've covered many a mile tagether and every scratch what he is got is a mark o' character. We've lived together, we have; we're friends. Those things they showed ta the show is just oughtos.

There was one interestin' thing at the show, and that was the womin. I don't know whether they showed more'n they oughto show or not, but they showed enuf. And they was all polished and painted up like the oughtos. And no one explained them ta me like they did the oughtos.

Sofie wasn't in it with them for looks, but you know, me and Sofie has traveled tagether some, too, not miles but years, and Sofie's wrinkles is from our travelin' tagether. They is marks o' character. We've lived tagether; we have. Them things I see at the show was just womin. HY SYCKLE.

for Economical Transportation

CHEVROLET



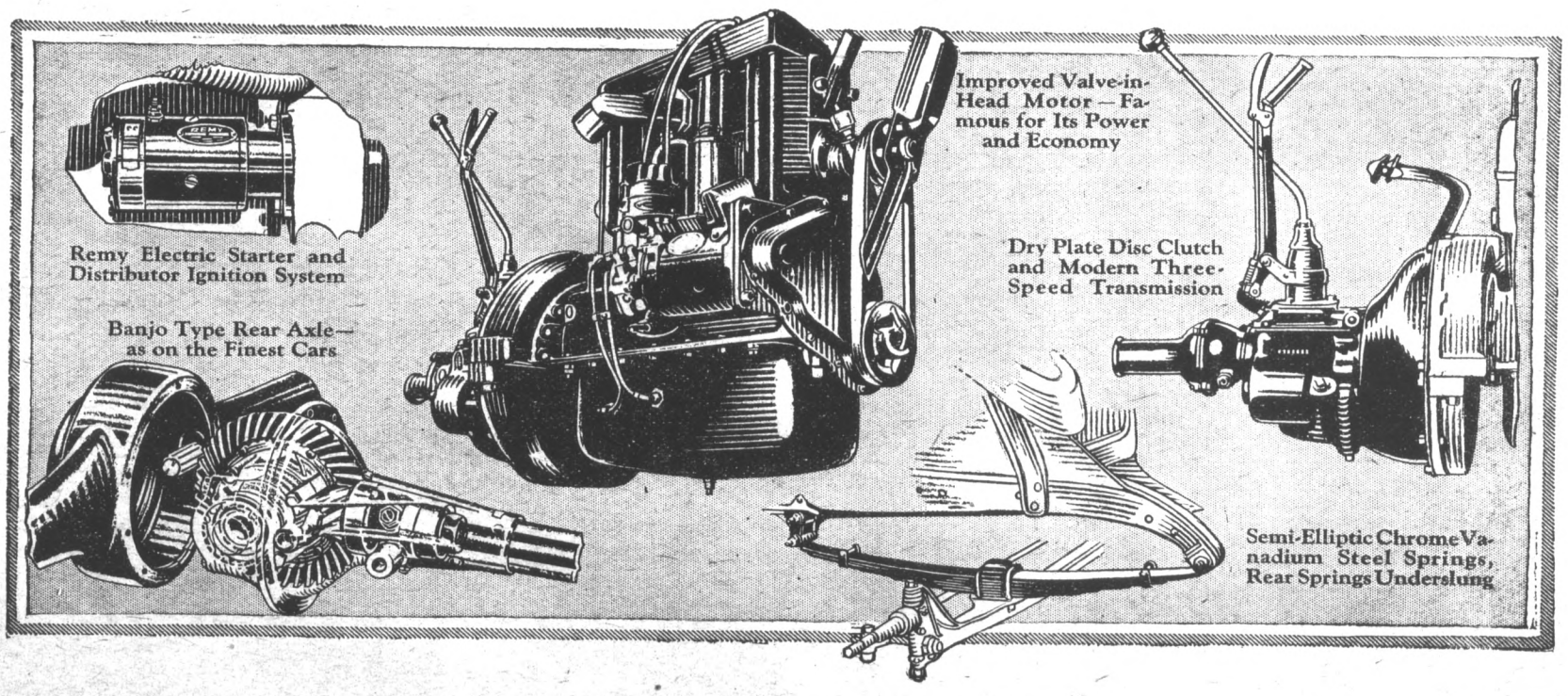
Unusual Performance

Chevrolet is famous everywhere for the power and economy of its motor. Power to climb hills—to go through sand and mud—to travel the most difficult roads! And the quality of the motor indicates the quality of construction characteristic of the entire car. Chevrolet provides unusual performance because of unusual quality features such as are illustrated below—features that you would expect to find only on high priced cars. Chevrolet represents the highest type of quality car selling at a low price.

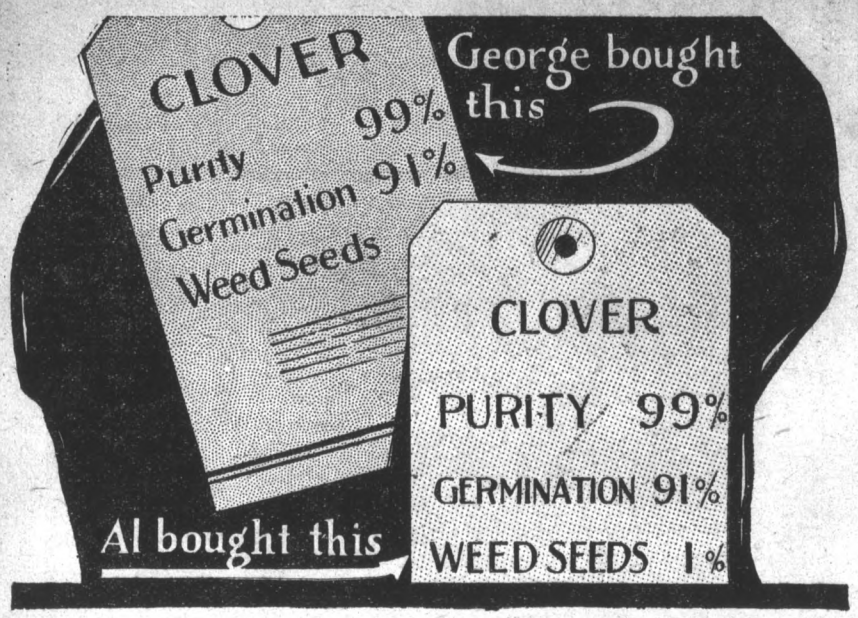
CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

ALL PRICES F. O. B. FLINT, MICHIGAN

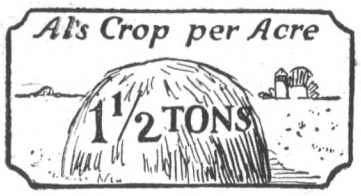
Touring Car $525	Roadster $525	Coupe $715	Sedan $825	Coach $735
30" x 3½" Tires and Artillery Wheels	*30" x 3½" Tires and Artillery Wheels*	*Balloon Tires and Disc Wheels Standard Equipment*	*Balloon Tires and Disc Wheels Standard Equipment*	*Balloon Tires and Special Artillery Wheels Standard Equipment*

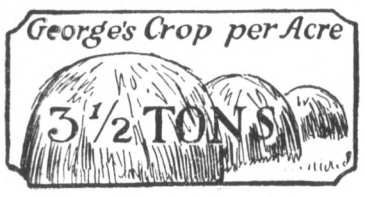


QUALITY FEATURES THAT MAKE POSSIBLE UNUSUAL PERFORMANCE



What the Hunt Boys Learned about Clover





After the Hunt boys bought their Clover seed last spring, they compared labels. George found that Al had bought from another dealer, seed which was labeled the same percent purity and germination as his.

Growing conditions during the season were not favorable. Al's Clover didn't do well, while George's came along in fine shape. Al figured he got only 1½ tons to the acre, as against George's 3½ tons.

They couldn't explain it. They agreed the soil, cultivation and all other conditions had been as nearly alike as they could be. But Al began to study up on seeds, seed laws, seed testing, etc. He concluded his seed had been lacking in vitality, even though the tag didn't reveal this fact.

Al learned a lot of things about seeds and testing that will be worth dollars and cents to him in the future. You can read what Al learned in a little book prepared by the Albert Dickinson Company, entitled "7 Lessons in Judging Seed." It is sent free on request. Write for it.

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"PINE TREE" FARM SEEDS
Sold By Good Dealers Everywhere

State Capitol News

By Our Lansing Correspondent

As predicted in the last issue of the Michigan Farmer, the much-discussed gas tax and weight tax have now been enacted into law. The legislature ordered both measures to take immediate effect, and Governor Groesbeck lost no time in affixing his signature to these bills and thus making them the law of the state.

A week ago we related that the senate had passed the Atwood-Baxter gas tax thirty to one, and the house the Evans adjusted weight tax bill ninety-five to three. Final approval was given to these two bills when the house passed the gas tax eighty-eight to five, and the senate accepted the weight tax twenty-seven to one.

Now that these two extremely important highway finance measures have been finally enacted into law it is well to pause and see what they provide and what is to be done with the millions of revenue which they will produce.

In its final form, the Evans weight tax bill taxes passenger cars fifty-five cents per hundred pounds. Commercial vehicles are defined as "motor vehicles used for the transportation of passengers for hire and those constructed or used for transportation of goods, wares or merchandise," and will be taxed according to the following schedule: Up to 2,500 pounds, $0.65; 2,500 to 4,000 pounds, $0.80; 4,000 to 6,000 pounds, $1.00; over 6,000 pounds, $1.25.

These rates will probably bring in approximately the same amount of revenue as is raised by the present license tax which is based on a combination of weight and horsepower. The additional revenue from the gasoline tax will make it possible to proceed on a "pay as you go" basis and to retire the present highway indebtedness without neglecting the construction and maintenance of the state's system of improved highways.

Out of the revenue from the Evans weight tax, $6,000,000 per year will be returned to the counties, and for the balance of the present fiscal year $1,629,000 is set aside "to meet the deficiencies in appropriations heretofore made, for the payment of interest on state highway bonds, and for the state highway department." The remainder of the revenue will be appropriated as follows: (a) Interest and sinking fund for state highway bonds, not less than $1,200,000; (b) Maintenance of state trunk line, federal aid and non-trunk line highways, $2,000,000; (c) Building trunk-line bridges, including grade separations, $1,000,000; (d) Non-trunk line highway maintenance and non-trunk line bridges, $500,000; (e) The balance of the revenue is to be used for opening, widening and improving state trunk line and federal aid highways. Three hundred thousand dollars per year is set aside for operation expenses of the State Highway Department.

* * *

The revenue from the Atwood-Baxter two cent gas tax bill will be appropirated as follows: To apply on back highway rewards due the counties, $1,500,000 this year and $2,000,000 annually hereafter, until total amount is paid; interest and sinking fund for state highway bonds, not less than $3,000,000; the balance will be used for "the general construction, improvement and betterment of the public highways within the state."

Thus the perplexing problems of highway finance have been settled for the present, at least, by the adoption of the combined gas tax and adjusted weight tax levies. The enactment of this legislation places the burden of highway support directly upon those who obtain the chief benefits from the improved highways—the motorists who use the roads. Visiting cars will make their contribution through the gax tax. Trucks and buses and heavy cars of every description will pay higher rates than the passenger cars and other lighter and less destructive vehicles. A definite program for retiring the state's highway indebtedness without general property tax levies has been put into effect.

* * *

With the highway finance program out of the way, the law-makers are turning their principal attention to the financial needs of the various state institutions, boards, commissions, etc. On Tuesday evening, January 27, seventy-seven appropriation bills, containing budget requests totaling $70,000,000 were introduced. On the following day, after settling upon the final terms of the gas tax, the senate agreed to take a ten-day recess in order that the members might go on their junkets and report out the appropriation bills from the institutional committees to the finance and appropriation committee, which must pass upon all legislation of this type in the senate. Since the total revenue of the state from its proportion of the general property tax, the corporation tax, and other miscellaneous sources will be not over $50,000,000 for the next two years, it is evident that many of these requests cannot be granted, at least in full. The requests for the purchase of land and the erection of new buildings, which two items alone total about $18,700,000, will probably be the most severely cut.

* * *

Once more the motorists from the northern counties and the Upper Peninsula have demanded a three-fourths auto license rate for licenses issued between April 1 and September 1. A bill to carry out this purpose has been introduced by Senator John E. Gillett, of Rapid City, Missaukee county. It is the contention of the representatives from northern Michigan that, on account of the heavy snow in that part of the state, they are prevented from using their automobiles about half of the year and so should not pay the full amount of the regular license fee.

* * *

From a particularly agricultural point of view, three measures of considerable importance have recently been introduced. One is the appropriation for paying state rewards on condemned tubercular cattle. This bill, if passed in its present form, will provide $500,000 for each of the next two years for this purpose and will make possible the carrying out of tubercular eradication campaigns with vigor in many of the counties which are on the waiting list for this work.

The promotion of grades and standardization work for farm produce in Michigan would be greatly assisted by the passage of two bills introduced by Senator George Leland, of Fennville. One would put teeth in the old markets director act and bring the law up-to-date and make it workable. The other would make the federal potato grades compulsory for Michigan.

WANT GOODS PROPERLY MARKED.

Enactment of the Purnell bill authorizing congress to increase the appropraitions for experiment stations and truth-in-fabrics legislation which requires that specific statements be placed on all woven fabrics and on garments made from fabrics purporting to contain wool, indicating the percentages of virgin wool, shoddy, cotton and silk of which the are made, is recommended. Passage of the agricultural appropriations bill, including the maximum amount for market news service is favored.

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Sweet Clover Pasture

How to Get the Most from it

THE past few months the Michigan Farmer has contained numerous letters from farmers who are meeting with success with sweet clover pasture. This is evidence enough that sweet clover is rapidly gaining in favor in this state as a pasture crop. There are a good many farmers in the state who have tried sweet clover for pasture and have not secured as satisfactory results as they should have. This has largely been due to a lack of appreciation of the rapidity of growth and the carrying capacity of the crop.

There are several advantages of sweet clover as a pasture crop. One of the outstanding of these, is the fact that growth starts quite early in the spring and continues throughout the hot, dry summer months when June grass and other pastures are likely to be quite short. This advantage frequently becomes a disadvantage when sweet clover is allowed to become too rank before grazing.

Grazing should begin when the plants are from six to eight inches high, and sufficient live stock should be kept on the pasture to keep the growth down to at least knee-high. If the growth gets much taller than this the plants become woody, the cumarin content increases quite rapidly and the quality of the pasture decreases. When it is noticed that the growth is gaining too rapidly on the live stock, it is advisable to clip the pasture about eight inches high.

The carrying capacity of sweet clover pasture is exceptionally heavy. This varies, of course, with the season and with the soil, but as a general average, sweet clover may be expected to accommodate one head per acre throughout the growing season. Under quite favorable conditions four or five head of live stock may be pastured on one acre.

One of the most frequent mistakes made when pasturing sweet clover is that of not having sufficient live stock on the pasture to keep the growth subdued. The pasture will last much later in the season of the second year if the growth is pastured fairly heavily. This heavy pasturing prevents the plants from forming seed. When seed is allowed to form, the plants drop their leaves and die. The cumarin content of young, succulent shoots is much lower than that of older, more mature plants. When the season is exceedingly dry and long, the cumarin content sometimes gets so high that the plants cease to be palatable.

At one time it was thought by a good many farmers that sweet clover would not be eaten by most classes of live stock when they once become accustomed to it. The best time to start live stock on sweet clover is in the early spring when the cumarin content of the young palnts is quite low.

Cattle and sheep very seldom bloat when on sweet clover pastures. If cattle or sheep are very hungry and the sweet clover plants are wet, there is some danger of bloat. Sweet clover is much safer than alfalfa or June clover.

Cattle, when allowed sweet clover pasture only, frequently crave some dry roughage. This is much more noticeable during a wet year, due to the extremely succulent nature of sweet clover pasture. This craving may frequently be prevented by allowing the cattle to have the run of a straw stack. When this is neglected the appetite of the animal may become depraved and the services of a veterinarian will be necessary. It has been the experience of a few Michigan farmers that rock salt is not readily enough available to the animal and should not be used when pasturing sweet clover. The ordinary bulk salt is quite satisfactory and to be preferred.

The fact that sweet clover pasture is succulent, however, is a decided advantage in the case of dairy cattle. A high flow of milk can only be secured when succulent feed is available. When June grass pasture becomes dry, it is necessary to feed ensilage to supply the succulence. This is seldom necessary with sweet clover pasture.

The bulk of sweet clover pasture is produced the second season. If conditions are at all favorable considerable pasture may be secured during the late summer and fall of the first season. Owing to the peculiar bud formation of the sweet clover plant the first season, there is little danger of over-pasturing. Some top growth should be left for protection during the winter.

When sweet clover is grown in a rotation, it may be used as a pasture crop to a greater advantage than when it is used as a permanent pasture.

There are several different strains of sweet clover. The one most frequently grown in Michigan is the biennial white clover or common sweet clover. Occasionally a field of biennial yellow is seen. The biennial yellow is from ten days to two weeks earlier in maturing and produces from two-thirds to three-fourths as much growth as the biennial white. The biennial yellow is more decumbent and for this reason, a few farmers contend that it will stand pasturing better than the biennial white.

The feeding value of sweet clover pasture is very high, due to the fact that the plants contain a high percentage of protein as well as minerals. Nitrogen, potassium, and calcium are quite abundant in sweet clover. The phosphorus content is low.

Sweet clover is especially well adapted as a pasture crop for cattle and sheep, due to the fact that it very seldom causes bloat. Horses do well on sweet clover and hogs may be pastured on sweet clover to good advantage. However, alfalfa is proving more popular as a pasture crop for hogs.

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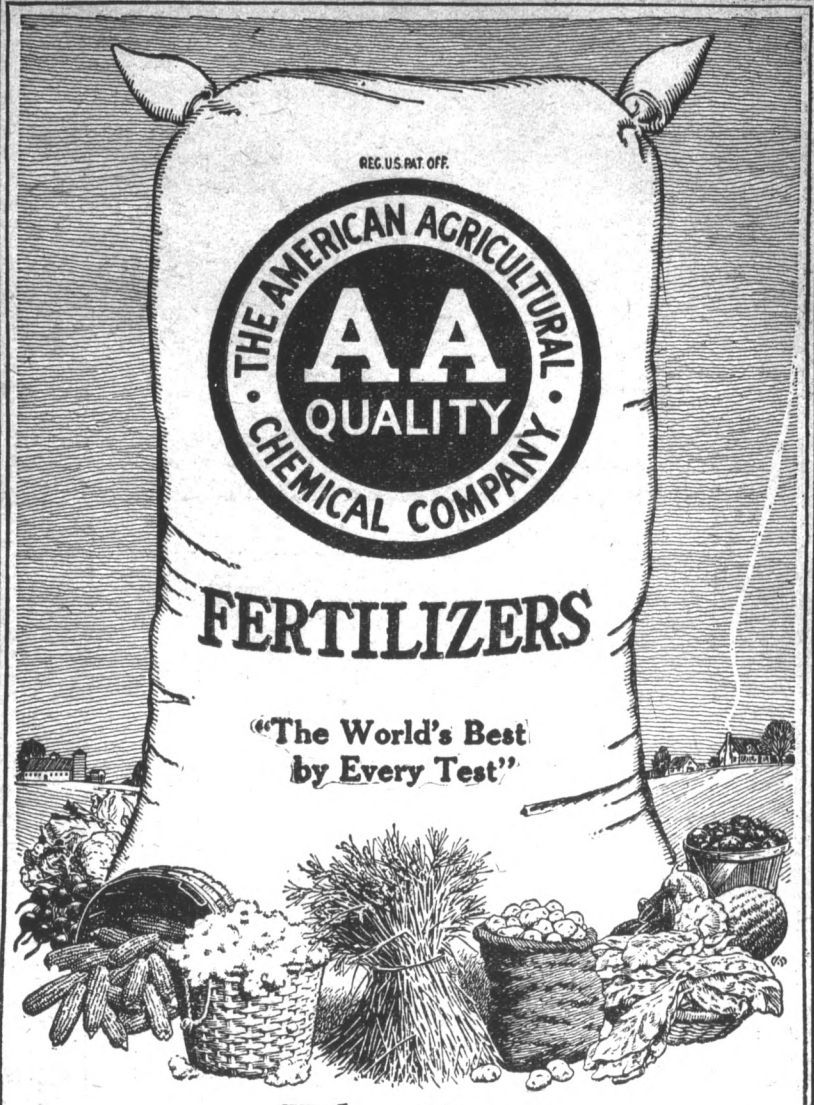

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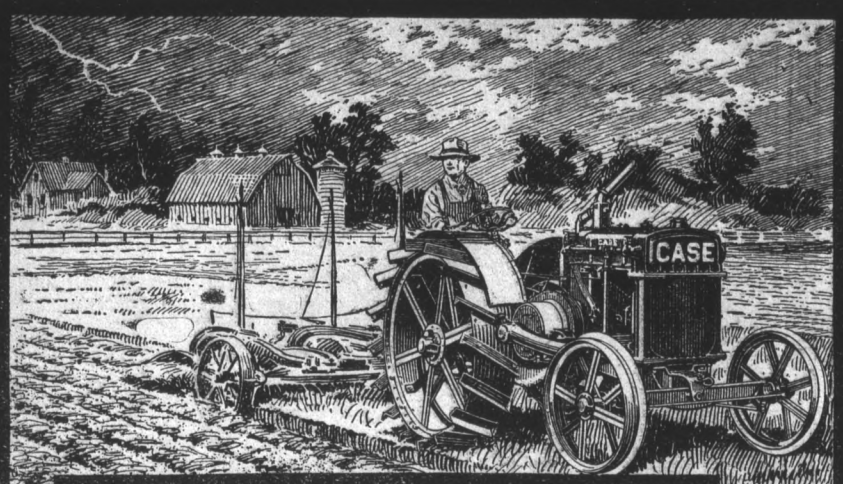

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MORTGAGE VOID.

A. wanted to buy an auto of B. A.'s wife refused to sign. B. told A. that if he wanted the car, B. would take the mortgage with only A.'s name on it. A. got out of work and wanted B. to give him longer time on it, and wanted to give B. a chattel mortgage on the car, and personal property, but B. refused, when the mortgage came due, could B. take the personal property from A.'s wife? Could B. take anything from A. except the car?—X. Y. Z.

A mortgage on homestead or exempt team and tools, without the wife's signature is void, but the creditor could nevertheless take anything for the debt that was not exempt, by bringing suit and levy under execution.—Rood.

REOPENING DIVORCE CASES.

Can a divorce case be reopened after the decree is signed, when it is not signed until after thirty days after granted?—N. C.

A decree may be set aside at any time before it is enrolled. The statute provides that the decree shall be enrolled twenty days from the time it is entered if no appeal has been claimed within that time and no petition for rehearing has been presented.—Rood.

USE OF PRIVATE ROAD.

The main road to my farm is blocked with snow. There is a private road running through three farms to mine which has been used by the public for over ten years. Everyone else going that way use the road across; but Mr. G., one of the owners, on account of an old grudge, says I cannot drive across. As long as the main road is blocked, can he stop me from driving where the rest drive?—R. A.

When a highway is blocked persons using the highway may lawfully go around the obstruction on private ground. But they cannot, on this ground, go cross lots from one road to another. In fact, that the owner permits some persons to use his land does not require him to permit others to do so. The fact that the drive has been used for a number of years by the public raises the question whether there has been dedication as a highway and acceptance by public authorities. This is a question of facts.—Rood.

A COW COLLISION.

On August 22, at dusk, I drove my cows across the road to the barns. They had all crossed the road but the last one, which turned, and was hit by a rapidly approaching car, with lights on, injuring the cow so badly that I had to kill her a couple of hours later. The car hit the cow so hard that it was also badly damaged. About two months later I received a letter from a lawyer asking me to pay the amount of damage on the car. Am I laible for damages? Have I a claim on the owner of the car for the value of my cow? P. K.

Inquirer is not liable for the injury to the car and is entitled to recover the value of the cow. Better see an attorney.—Rood.

STARTING YOUNG CALVES WITH LITTLE MILK.

Please give me a method for raising calves without milk.—H. C.

It is a difficult problem to start the young calves without any milk at all. Milk is nature's food for the young and there really is no substitute for it. However, if you have a little milk, you can get along very well, for milk contains the vitamines that seem to be so essential in the development of the young. In pioneer days, when the milk from the only cow was sorely needed for the children, the calf, if it was raised, was fed only a little milk, and the balance of the ration was made up of hay tea. These later years we have learned that the green leaves of plants contain these vitamines the same as milk, and the pioneer could have furnished no better or more appropriate food had he had plenty of them. The calves raised on hay tea were vigorous calves.

Now we have learned that these vitamines are found in varying amounts in the grains, but that no one grain contains a sufficient amount in the right proportion. The grains also, of course, contain the protein, carbohydrates and fat that are necessary to make growth if they have the vitamines to make them operative. If you make a mixture of various grains, the more the better, corn, wheat, buckwheat, flax, etc., and make a thin gruel by boiling, you will have as good a substitute for milk as you can get. The Wisconsin Experiment Station obtained as good results with such a grain mixture as they did with the commercial calf meals found on the market. If you have a little skim-milk to go with this gruel you can grow very good calves.

BUILDING FENCES.

Is there a law that compels a man to build a line fence through timbered land? He don't use it for pasture, and refuses to build a fence.—W. H. S.

If the land is inclosed, the adjoining owner may be compelled to build a fence. It matters not whether the land is cleared or forest.—Rood.

GROWING LIMA BEANS.

I have read in the Michigan Farmer about lima beans. I would like to know on what soil they will grow best. Will you also tell me the size, and the yield of them per acre? What kind of beans would you advise me to raise on sandy loam soil?—A. H.

From two to three thousand acres of lima beans are produced in southwestern Michigan each year for canning purposes. The crop does not ripen safely for seed in Michigan, hence nearly all of the seed is secured from southern California.

Henderson's Bush Lima is the most widely grown variety. As handled in Michigan, the lima crop is on a contract basis and I would suggest that you correspond with the Roach Canning Company, of Grand Rapids.

The limas are best adapted to early loams and fertile sandy loams in the southwestern quarter of Michigan.

Red kidney beans should give you the best results, as dried beans on your land. From ten to eighteen bushels per acre can be expected from Red Kidneys, when properly handled. The dark red kidney beans are in particular demand at the present time. This crop should be planted from May 20 to June 5 on a thoroughly fitted seedbed. The use of manure in the fall or early spring, and 200 to 300 pounds of a high-grade commercial fertilizer, greatly benefits the crop.—J. F. Cox.

HOLDING CLOTHES FOR BOARD.

I am a widow and board private children. Two parties still owe me two weeks' board each. They both live in Detroit, and the one party I have lost track of. Can you tell me how to locate him? They have taken the children home, and promised to pay later, and that was a year ago and they have not paid yet. One party's children left part of their clothing at my place. Have I a right to hold their clothes until I get my pay, and if I don't get my pay have I a right to sell the clothes and keep the money? She wants me to send the clothes and she would pay me, but I don't care to take chances, for if she were honest she would have paid before.—Reader.

There is a right to retain clothing until paid, but no right to sell it. If the collection is not obtained, turn it over to some collector.—Rood.

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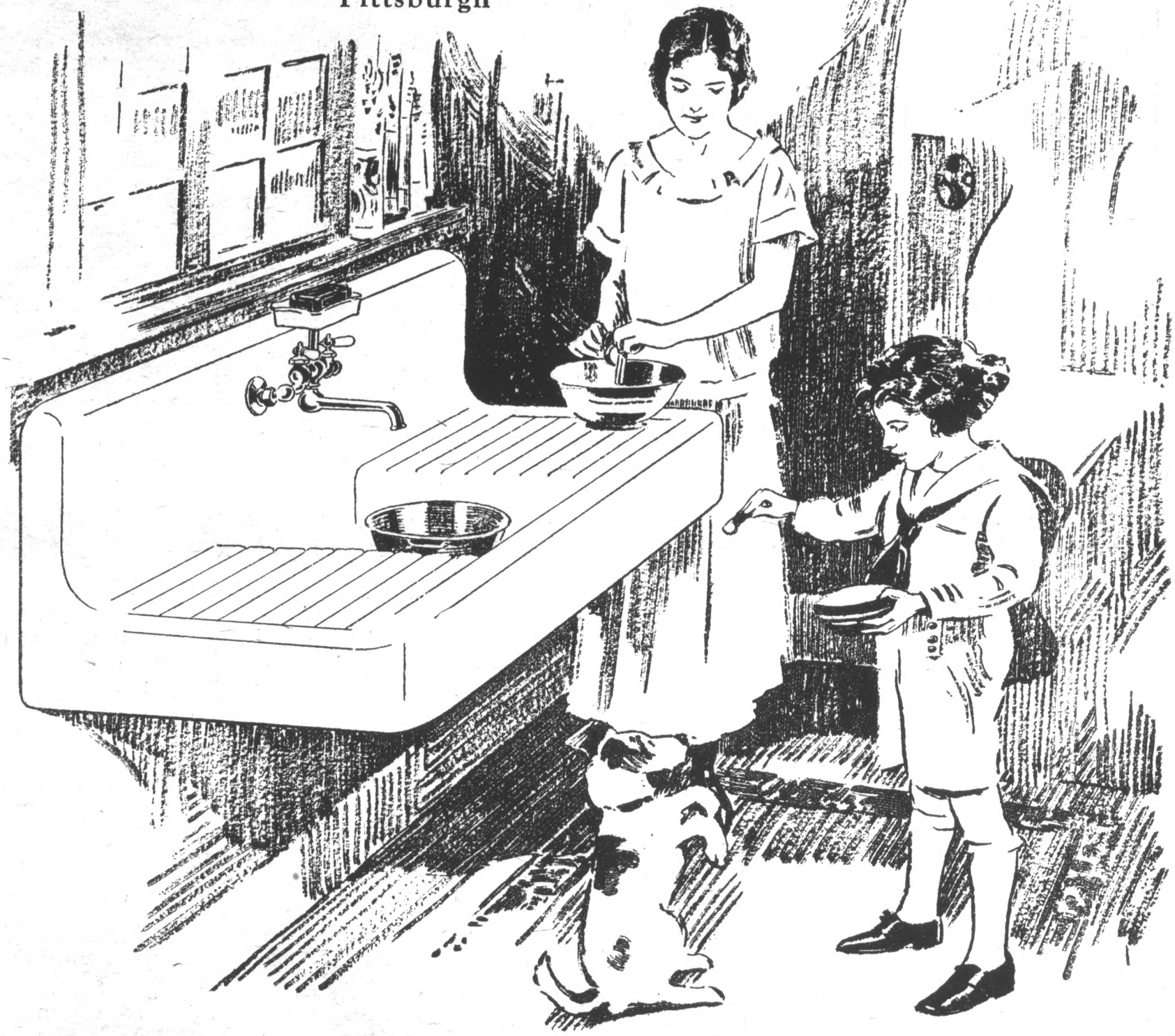

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NEWS FROM CLOVERLAND

PUPILS CHANGE EATING HABITS.

OVER 3,000 pupils in the primary schools of Marquette county—the largest county in Michigan—were given instruction in nutrition, during the year just closed, under the supervision of their teachers and Miss Marian Rider, home demonstration agent. More than 200 teachers are enrolled in this work. Miss Rider reports that forty-five per cent of the children have formed the habit of drinking a prescribed amount of milk daily; thirty-nine per cent have learned to eat more vegetables; forty-five per cent have learned to eat more fruit daily; fifty-one per cent have learned to eat hearty breakfasts before going to school; fifty-two per cent have learned to take the proper amount of rest; nineteen per cent gave up drinking coffee.

CLOVERLAND'S HIGH-PRODUCING COWS.

MR. J. G. WELLS, JR., dairy specialist of the M. A. C. for the Upper Peninsula, reporting on the December records of the cow testing associations of the peninsula, finds that the Marquette-Alger County Association took most of the honors for that month. The herd standing highest in butter-fat production was the herd of fifteen pure-bred and high-grade Holsteins on the farm of the Branch State Prison near Marquette. The average production of this herd was 1,453 pounds of milk and 48.2 pounds of fat for the month. A pure-bred cow in this herd led the three-year-old class, having produced 1,798 pounds of milk and fifty-three pounds of fat. This herd was milked thrice each day and has had exceptional care and feed, accounting for the high record reported.

Two pure-bred Guernseys from the famous Baycliffs herd at Big Bay, Marquette county, led in the two-year-old and the mature classes, having an output of 1,262 pounds of milk and fifty-three pounds of fat, and 1,541 pounds of milk and eighty-five pounds of fat respectively. This last record led the peninsula and was made by the cow, "Rilma," which was milked four times daily. John Tassava's pure-bred Holstein from Gogebic county led the four-year-old class, with 2,021 pounds of milk and 68.17 pounds of fat. The highest association average was made by Iron county with 563 pounds of milk and 23.1 pounds of fat per cow.

THOUSANDS OF ACRES HELD BY GOVERNMENT.

RESPONDING to a request for information regarding the amount of United States and Michigan land-holdings still existing in the Upper Peninsula, the State Conservation Department has prepared a statement which will be of interest to readers of The Michigan Farmer. This information was wanted in connection with the conference on forestry held at Chicago on January 22-23, which was attended by several men from the peninsula interested in the problems of forest conservation.

The state's land-holdings are derived largely from lands which have gone delinquent for taxes. Just recently one of our largest lumber companies turned back to the state 30,000 acres of these lands, and others have done likewise. While it is undoubtedly to be preferred that lands unfit for agriculture shall be turned over to the state for reforestation, the process of transfer works hardships upon rural communities which formerly depended on these lands for a portion of their taxes for school and other purposes.

On the other hand, land-owners, as soon as they have skinned the land of whatever is valuable, are ready to unload and thus avoid the annual drain on their revenues which such ownership affords. They have no incentive to attempt reforestation on their own account, for under our present taxing methods, as soon as reforestation starts taxes advance and these will eat up the entire increment of value attaching to these forest lands before the timber crop is secured.

The conservation department's figures show that in the state-owned forest lands of the Upper Peninsula there are 35,026 acres not under administration as a part of the state forest system, while there are 75,787 acres in the Superior Game Refuge, formerly the Lake Superior State Forest before the change of 1923. This makes the total acreage in state forest and game refuge lands in the peninsula 110,813. The United States has 24,835 acres of national forest lands in the Upper Peninsula. Taking all state lands together, the state owns 234,614 acres in the peninsula, which includes 123,801 acres of tax homestead, school and swamp lands. In the tax lists for 1922, 2,269,413 acres of lands were reported as delinquent for taxes in the Upper Peninsula, while a year later the quantity was 2,583,205 acres.

GROWS WOLVERINE OATS.

LAST year, Mr. Fred Erickson, a Gogebic county farmer, planted two acres of Wolverine oats from seed secured from the Michigan Agricultural College. He produced 120 bushels and is now in a position to sell pure-bred seed to his neighbors. The official weight of these oats ran 34.5 pounds per bushel.

DECEMBER WAS A COLD MONTH.

THE United States Weather Bureau's December statement of the weather conditions in Michigan, as was expected, shows a mean temperature well below the normal for that month, it being five degrees below the average. The lowest temperature, as is likely to be the case, was reported from Humboldt in the Upper Peninsula, with a maximum low of twenty-seven degrees below zero on December 28, but in 1917 the extreme minimum for Michigan was thirty-eight below at Humboldt, which lies in a posiiton favorable to extreme low temperatures. Escanaba held the state record in December for low precipitation, 90 inches.

HOLDS ANNUAL MEETING.

THE Cloverland Farmers' Mutual Rodded Fire Insurance Company, organized in 1921, held its annual meeting recently at Hancock. The membership had increased by 190 during the year, now standing at 2,340. The insurance now carried amounts to $7,354,100, the gain last year being $700,000.

APPROVE T. B. WORK.

THE Houghton county board of supervisors, after a long campaign on behalf of women's clubs and farmers, has voted in favor of a test for bovine tuberculosis for the county. It is now on the waiting-list of the state. There are now twenty-one counties in Michigan on this waiting-list. The proposed test will cost Houghton county, it is estimated ,about $18,000. Dr. F. K. Hanson, assistant state veterinarian, appeared before the board toexplani the plan. It may be impossible to reach Hougton county this year.

Feeding Potatoes

By H. L. Barnum

POTATO growers in Michigan, who have dairy cows and who make a practice of feeding small and otherwise unmarketable tubers, have found cull potatoes a valuable addition to the dairy ration. This is especially true in the fall, at digging time, when the small potatoes can be fed and got out of the way before they freeze and before the silos have been opened.

When potatos are fed as a supplement to grain and hay, they furnish a very welcome and much-needed addition to the dairy ration and are considered equal in value to good corn silage. As silage is worth from $7.00 to $10 a ton, potatoes for feed possess a value of thirty-five to fifty cents a hundredweight.

An Example of Misinformation.

In a certain farm paper published in the east, a farmer's question about the feeding value of potatoes was answered by the paper's feeding expert in such a way as to discourage their use. This farmer, who said he had a great many small potatoes, was told that they were ninety per cent water; that they were ill-suited to feeding farm animals, except as an appetizer, and that as much as six pounds per day might be fed a cow with good results.

As a matter of fact, potatoes contain more dry matter and have a greater feeding value than any other vegetable. Instead of having ninety per cent water, the percentage usually ranges between seventy and eighty per cent, the extremes being sixty-five and eighty-five per cent, according to figures given by Professor Fraser, of Cornell, in his book, "The Potato." Potatoes contain more dry matter than carrots, mangels or bagas, which have always been extensively used for feeding farm animals.

Small dairymen in Michigan fully appreciate the value of potatoes for feed. The owners of one or two cows, in small towns in the potato belt, buy all the cull potatoes from potato dealers and feed them with very satisfactory results.

"A small pailful of chopped potatoes, fed with a little grain and alfalfa hay, gives me more milk than any other combination of feed I ever used," said a one-cow city dairyman recently.

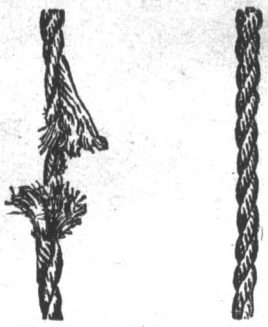
In Germany, where a billion and a half bushels of potatoes were produced annually before the war, forty per cent of the crop was utilized for live stock feed. Authorities on feeding at the Michigan Agricultural College say that milk cows should not be fed more than twenty-five to thirty pounds a day for each 100 pounds of live weight. Larger amounts may injure the quality of the butter. To limit the feeding to only six pounds a day, therefore, is utter nonsense.

A profitable outlet for cull and surplus potatoes is very necessary during a season of over-production like the present one. In Maine the starch factories get most of the surplus and culls at a nominal price; but in Michigan we have a much more profitable outlet in our farm animals. Full directions for feeding potatoes to all classes of animals may be obtained from Extension Bulletin No. 25, entitled, "Feeding Cull and Surplus Potatoes," published by the Michigan Agricultural College, East Lansing, Michigan.

THIS EGG REMEDY IS GUARANTEED.

IF you don't want the hens to work at their regular job, put them in a dark, dingy coop; shut them in day and night; feed them just one kind of feed, and that only on nice days, and during the first quarter of the moon, throw out the ones that are too weak to live. This is positively guaranteed to keep the egg production down.

No one sees what is before his feet; we all gaze at the stars.



Two ropes bought at the same time, used just alike. One is ruined; the other —H. & A. "Blue Heart" Manila—is still strong. It pays to buy really good rope

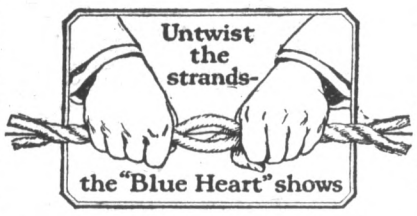
Just a thin blue thread —*but it saves you money*

The thin blue thread marker that runs in the center between the strands of H. & A. "Blue Heart" Manila Rope adds nothing to its strength. Yet it is a symbol of long-wearing rope.

It is your assurance, when you buy, of getting exceptionally good rope—rope that will prove its worth in long wear. Cheap rope, as farmers everywhere are coming to realize, is a poor buy in the long run. It wears out quickly and costs time and money to replace.

The best grade manila rope, on the other hand, more than pays for itself in long, dependable service. Make sure of getting such rope this way when you buy.

Untwist the strands. If you find a thin blue thread marker—the "Blue Heart"—running



in the center between the strands, then you may be sure of these facts.

What the "Blue Heart" signifies

The "Blue Heart" marker means that the rope is genuine H. & A. "Blue Heart" Manila, spun from high grade, pure selected manila fibre by rope makers with over half a century's accumulated experience.

It means also that in any size, on any job, the rope will wear longer and deliver without fail the strength you have a right to expect. For the selected fibres of H. & A. "Blue Heart" Manila Rope are drawn, spun, laid, and properly lubricated so as to insure the smooth working of every fibre, yarn and strand.

Buy scientifically. Know beforehand what you are getting. Untwist the strands and look for the "Blue Heart"—our registered trade mark that assures you of dependable rope value.

Guarantee

H. & A. "Blue Heart" Manila Rope is guaranteed to equal in yardage and exceed in tensile strength the specifications of the U. S. Government Bureau of Standards. Any H. & A. "Blue Heart" Manila Rope found not to be as represented will be replaced.

The Hooven & Allison Company
"Spinners of fine cordage since 1869"
Xenia, Ohio

H. & A. "Star Brand" Binder Twine

evenly spun from carefully selected fibres, is of full yardage, and has ample strength for binding purposes

H&A

For sisal rope

For other jobs where high-grade sisal rope is wanted, use the best—H. & A. "Red Heart" Sisal Rope—spun from selected sisal fibre by the same skilled rope makers

H&A "Blue Heart" Manila Rope

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Special Offer!

This coupon with 30c will entitle you to our special Halter Lead made from H. & A. "Blue Heart" Manila Rope. It is ½ inch in diameter, 7 feet long, and is fitted with a snap at one end. It is offered to introduce to you the great strength and wonderful wearing qualities of H. & A. "Blue Heart" Manila Rope.

If your dealer does not carry H. & A. "Blue Heart" and cannot supply you with this special Halter Lead, fill out the coupon and mail it to us with 30c, coin or stamps, and your dealer's name. A Halter Lead will be sent you prepaid at once.

M. F. 2-7

The Hooven & Allison Company, Xenia, Ohio
Enclosed is 30c for which please send me one H. & A. "Blue Heart" Manila Halter Lead.

My Name .....

Address .....

My Dealer's Name .....

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Why Not PUT THIS NEW MILL ON YOUR ALBION OLD TOWER

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. Governs 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.

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The last word in a permanent silo. Write for interesting free illustrated fact-proving catalog. Tells how we manufacture them under the best known processes—and not stopping at that—how we erect them for you in a few days from ground to peak.

Special Terms if you order Now!
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Factories at
Kalamazoo, Mich., Peoria, Ill., Bloomfield, Ind.

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COLLINS PLOW CO., QUINCY, ILL.

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Our prices are $2.00 to $3.00 lower than most dealers. Write us today for free samples of Highest Grade Home Grown Seed. Our price is surprisingly low. Get our samples and prices on Alfalfa, Sweet Clover, Timothy and all Seeds. We can save you big money on your seed bill. Write for free samples, special prices and 52 page catalog.
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MAKE MONEY
Pulling stumps for yourself and others with "Hercules"—the fastest, easiest operating stump puller made. Horse or hand power. Easy terms—$10 Down.

Cheapest Way to Pull Stumps

Write Quick for Agent's Offer
Big profits with easy work for you in my new special agent's offer. Also get my new big catalog—free.
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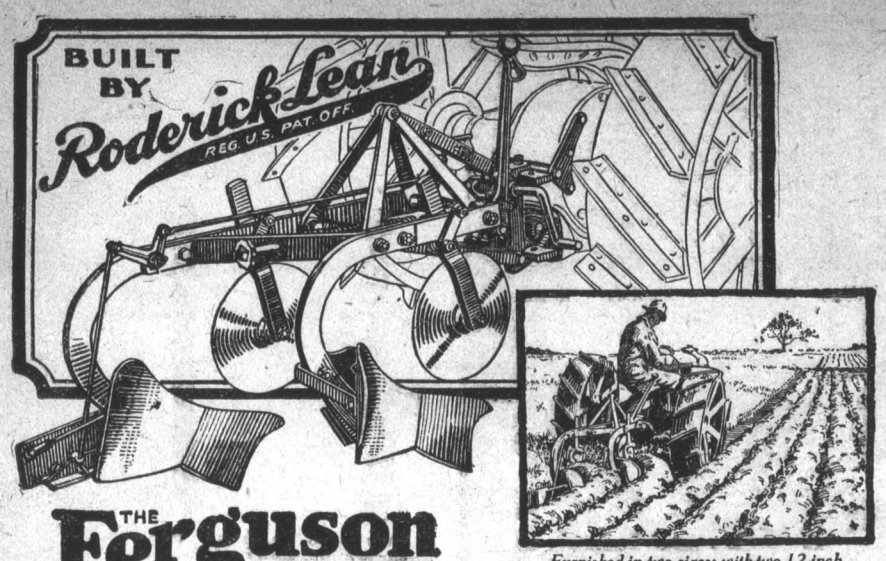


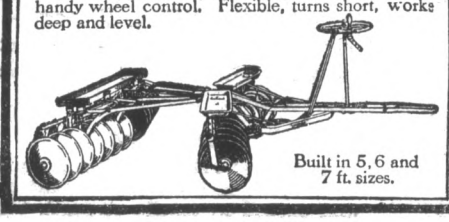
Furnished in two sizes: with two 12 inch bottoms and with one 16 inch bottom. Bases for various conditions.

THE Ferguson PLOW
BUILT FOR THE FORDSON

THE first announcement of the Ferguson Plow was made two years ago. *Since that time, thousands of these plows have been sold and put into service!* In the face of strong competition in a field already crowded, this new and radically different plow has made a big place for itself in American agriculture—*through sheer merit and outstanding superiority!*

Here is a tractor plow that is only half as long as the average Fordson Plow. Can be backed in the furrow and turned and handled more easily than any other plow. *It weighs only half as much.* It is lighter of draft—more economical to use. And yet—it penetrates and stays in the hard ground better than most plows of twice its weight because of its patented hitch and its line of draft. *It is stronger* because built of *special alloy steel.* Its Automatic Depth Control assures *uniform depth of plowing* regardless of soil conditions. *Truly the work of the Ferguson Plow is a revelation.*

Roderick Lean No. 4 Automatic Tractor Disc
The Standard Disc Harrow for the Fordson. More than 100,000 in service. Automatically angled to working position by draft of tractor—without stopping or backing. Straightened by backing—or straightened when moving forward by the handy wheel control. Flexible, turns short, works deep and level.



Built in 5, 6 and 7 ft. sizes.

See Your Fordson Dealer—He has the Ferguson Plow, or can get it for you quickly; if not, write us for full information. Distributors everywhere.

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Dept. P, Mansfield, Ohio

RUSSIAN SPRINGFIELD SPORTING RIFLE
$10.45

5 shot using the U. S. Army caliber 30, Mod. 1906 cartridges. Weight, 8 pounds. Length, 42¼ inches; barrel, 22 inches. Turned down bolt handle. Special price, $10.45. Ball cartridges, hard nose, $3.50 per 100. Web cart. Belt, 40 cents. **15 Acres Army Goods. New Catalog 1925, 60th Anniversary** issue, 372 pages, fully illustrated, contains pictures and historical information of all American military guns and pistols (including Colts) since 1775, with all World War rifles. Mailed 50c. Est'd 1865
Francis Bannerman Sons, 501 Broadway, New York City

New Self-Heating Iron
Cuts Ironing Time In Half

New invention. Low priced Iron now makes ironing amazingly easy in every home. Only one Iron needed. Ends hot stove drudgery. Saves steps. Costs only 1 cent for 3 hours' use. No attachments, cords, wires nor tubes to bother with. Regulates to any heat. Use in any room, indoors or outdoors. Always ready. Absolutely dependable. Lasts a lifetime. Guaranteed.

FREE Trial Liberal Offer. Try it 30 Days FREE. Write at once for special introductory—low price offer and free trial opportunity. No risk. No obligation. Send name, address today.
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AGENTS! $1200 A Day
"Cash-In" on big demand. New plan. Simply accept orders. No experience or capital required. Moyer, Pa., made $164 in one week. Exclusive territory. Write me personally, say:—"Send Agents Free Outfit Offer." J. C. Steese, Pres.

CENTAUR SMALL FARM TRACTOR

The Best Investment You Can Make for Profit and Comfort

Why not make your plowing, harrowing, planting and cultivating *easier and more profitable this year?* You can do it with the simple, powerful, low cost CENTAUR, which costs only ten cents an hour to operate—and is a *riding* tractor for every field job.

Plows 7" Deep—Has a Reverse

With a CENTAUR TRACTOR you can do your farm work at far less cost than with a horse and you can do it *quicker, better and more comfortably.* It will do your plowing, harrowing, discing, seeding, cultivating, mowing, hauling, sawing, feed grinding and other jobs—in double quick time and at lowest possible cost!

Low Price—Fully Guaranteed

The CENTAUR has a powerful New-Way Air Cooled Motor. Is equipped with Bosch Ignition, Hyatt Bearings and Automatic Governor. Six years of successful service on hundreds of farms are back of this tractor. Write today for full information.

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Don't Pay for 4 Months

So that you may see and use the only cream separator with a suspended self-balancing bowl, we will send an imported Belgium Melotte Cream Separator, any model, direct to your farm and you don't pay us for it for 4 months.

Write for FREE BOOK!
Write today for new Melotte catalog containing full description of this wonderful separator.

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One Man, Alone, Pulls Big Stumps Easy!

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Clear idle stump land in spare time—without help or horses. Grow bigger, better crops on that rich, virgin soil! Increase farm value! Make big profits every year

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Multiplies your strength 992 times. Pulls big, green, or tap-rooted stumps alone. No help or horses needed. Made entirely of steel. Fastest, most powerful, durable One-Man Puller made. 4 speeds double-action lever, mounted on wheels. Clears 2-3 acres without moving.

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M. A. C. Puts On Exhibits

Most Interesting and Instructive Displays at Farmers' Week

WHILE the main object of Farmers' Week, held at M. A. C., February 2-6, was contained in the program of speeches and classes, probably the most interesting feature of the entire week for the average farmer, were the numerous displays and exhibitions which greeted one at every turn. The United States Department of Agriculture, the State Department of Agriculture, many affiliated organizations, and the college itself, cooperated in making these shows a vital part of the week.

The more important exhibitions were the M. A. C. Horticultural Show, the Dairy Exhibition, the Michigan Grain Show, the Michigan Potato Show, the Michigan Egg Show, the M. A. C. Farm Mechanics' Demonstration, the Michigan Soils Association, and the Barberry Eradication campaign.

The various shows served the double purpose of solving serious problems for the visitor and also entertaining him during the process. That the efforts of the organizers were well taken was proved by the crowds of people who thronged the buildings in which the exhibits were shown.

AGRICULTURAL MECHANICS ATTRACT LARGE CROWDS.

THE work of the Agriculutral Engineering Department at M. A. C. was clearly shown to the many hundred farmers who visited their display in the Agrciultural Building and on the college grounds. The purpose of the department was to give the visitors an attractive and instructive week along practical lines, and they succeeded, if the number of spectators is any criterion.

The demonstration was divided into three parts. In a room in the Agricultural Building, the drafting and construction of farm buildings was illustrated by the use of minature models. The matter of blue prints was also gone into quite thoroughly by the attendants who answered the queries of the farmer.

Different types of farm water systems, electric light plants, and modern methods of sewage were on display in the main laboratory of the department. Gas engines loaned by companies around the state, a miniature marl bucket designed by Professor Musselman, and a simplex limespreader, also a product of the department, came in for a good deal of discussion by the farmers, and instruction by the caretakers.

The usual workout of tractors received a good deal of attention and a number of pertinent comments made on the several types present. A new feature was the demonstration in concrete mixing and testing. This was more in the nature of an instruction period as was the class in rope splicing and belt lacing, which was held every morning.

THE HORTICULTURISTS SHOW THEIR WARES.

THE Sixteenth Annual Horticultural Show held by the students of the college in the old Library Building, was one of the most popular places on the campus during Farmers' Week at M. A. C.

While the show properly included fruit, flowers, and vegetables, the bulk of the exhibit was made up of the Michigan apple, the finest in the land. The many plates of apples on a green background, with a few other species of fruit, served to present a pleasing picture to the visitor.

About fifty entrants sent in exhibits from all over the state, and even as far away as Texas. Much of the fruit came directly from the Grand Rapids Hort. Show, having been kept in storage at Lansing.

The horticultural section of the State Department of Agriculture repeated its demonstration of last year on methods of sorting, grading, and packing so as to conform to market demands. This was with the idea of increasing the demand for apples by a more attractive method of selling them.

Various cooked products from the Home Economics Department, and canned goods from East Lansing grocers constituted an interesting exhibition on the ultimate use of the apple.

On Friday, a fruit sale was held in which the majority of the exhibits were sold to the farmers.

The committee behind the Hort. Show this year consisted of W. D. Willard, of Oak Park, Ill., chairman; J. A. Porter, of Plainwell, fruit; R. E. Meek, of Manton, premiums; John S. Stark, of Midland, store; Harold Hough, of Almont, decorations.

GRAIN SHOW GETS MUCH ATTENTION.

MOVING the Corn Belt Northward," was the theme around which the Michigan Crop Improvement Association built their program and their demonstration during Farmers' Week. By this was meant that during the last few years a crop that was commonly attributed to Iowa, Indiana, and Illinois, has also been successful in Michigan and Wisconsin by the use of adapted seed, the employment of proper fertilizers, and the throughness of culture. Proof of the profitableness of the crop in Michigan is seen in the fact that last year it ranked second among farm crops.

The success of this effort to move the corn belt to the north was shown by a huge display of connected panels covering forty-two feet of wall space. Each of the panels depicted one of the factors which make for the raising of corn on a profitable basis. In the center of the display was a crib of Michigan corn at its very best. The demonstration was very effective in visualizing to the onlooker the actual factors which contributed to a successful crop.

Another part of the association's work was the grain show, in which 400 to 500 entries of Michigan grains were exhibited on a competitive basis. Many of these entries came from the International Hay and Grain Show in Chicago, in which Michigan products ranked ace-high. In addition to corn, red wheat, Rosen rye, oats, and barley were on display. In every instance, close competition marked the awarding of ribbons.

In a year that was acknowledged to be an adverse one for grains, several exhibitors came forward with a grade of products which showed that the proper selection of seeds and the necessary cultivation always produces results.

OFFERS BOUNTY FOR WOLVES.

THE Chippewa county board of supervisors has voted to allow a bounty of $20 each for wolves and coyotes and $10 for their pups. The supervisors of Mackinac and Luce counties, which join Chippewa on the west are being urged to take similar action. Those claiming the bounty are required to bring the carcass to the county clerk and make affidavit that the animal was slain in Chippewa county. Pelts will not be accepted for bounty.

THE Houghton-Chassell Farm Loan Association has 125 members and loans amounting to 378,300, it was reported at its recent annual meeting.

Our Neighbors

By L. B. Reber

THIS time I want to write about my neighbors. You see, whenever other topics fail we can always talk about our neighbors. On one side I have a neighbor who is an old gentleman. I did not raise any small grain last year, so I had no straw. After this neighbor threshed he insisted that I bring over my wagon and load on all the straw I could get on one load. He even did not like it because I refused to come back for another load. No, he did not want any pay and would not take any. Straw sells here for $15 a ton if baled, and $10 if loose. It is hard to get even at that price.

Across the road I have another neighbor. When I had a tough piece of plowing to do he brought over his big team and heavy plow, helped me make two rounds, then handed over the lines and told me to bring back the team when I got through. We borrow each other's tools and help each other whenever we have an emergency job. On the other side I have another neighbor. These folks are younger and have passed through the same struggle wife and I are passing through to get a start. He gives me grape plants, strawberry plants, and a lift whenever I need one. Naturally I try to return these favors whenever possible.

A short distance down the road I had another neighbor. He took sick a year ago before he had his corn husked. The men gathered at his place, husked the corn, tied up the

There is no Question of the Advantage of Talking Over Farming Problems With Our Neighbors.

fodder, cribbed the corn and hauled in the fodder. The poor fellow died a week later and the funeral procession was so long the services at the grave were over before the last car got to the cemetery.

Late last fall another neighbor was killed in an automobile accident. His children were too small to do the farm work. The men gathered at his place a couple of weeks ago and trimmed every bit of fruit on the place. Acres of grapes and hundreds of trees were trimmed in one day. The women came with great baskets full of good things and served a fine dinner at noon. Not one of the men there that day had his own trimming done.

When I was a boy at home, the folks lived for a time in a third story flat. One day I looked out of the window and saw a hearse drive up and stop. They carried away the body of the woman in the flat beneath us. We did not even know that she had been sick. There were no services at the home, no funeral procession, they simply loaded her in and drove off while the weeping family followed in the rear. I never knew her name or how she died.

This isn't a fairy story; there is no moral attached. There is only this resolution. Me, I think I stay on the farm a while longer. Me, I like neighbors. If you think your's are good, just come and take a look at mine. Me, I got good neighbors, I like them.

Cows are better natured and better producers when furnished a variety of feed.

FAIRBANKS-MORSE PRODUCTS—*"Every Line a Leader"*

"Z" Engines

Over 400,000 farmers use this engine because it is low in first cost, low in operating cost, and is absolutely dependable. It is simple, sturdy and powerful. Has high tension battery or magneto ignition; suction fuel feed; positive lubrication; renewable die-cast bearings; parts subject to wear are hardened and ground; crankshaft, connecting rod and camshaft are drop forgings. More drop forgings and specially heat treated parts are used than in any other engine of this type. Highest quality obtainable—at the lowest price possible!

Prices

1½ h. p. bat. equipt. $ 48.50
1½ h. p. mag. equipt.. 58.50
3 h. p. bat. equipt.... 83.50
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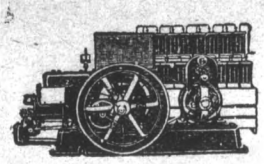
Home Light and Power Plants

Both electric light and engine power from one plant at one cost. Engine power is available at belt pulley while battery is being charged. Engine power alone or electric light alone at any time. Double utility at one low cost.

Prices

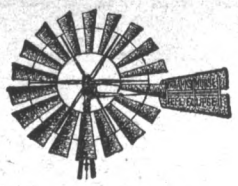
No. 1½ Plant.....$325.00
No. 3 Plant..... 525.00

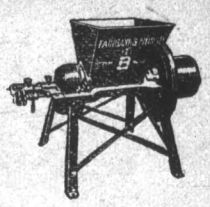
Cash f. o. b. factory



Steel Eclipse Windmills

All parts are completely enclosed and run in oil. Cut pinion and worm gear eliminate many parts. Crankshaft is drop forged. All working parts machined to close limits. Simple, all-metal construction—built for a lifetime of service. Self-regulating. Quick down stroke, slow lift—actual pumping two-thirds of the time. Wheel is tilted to take advantage of slightest wind. Sizes: 8 ft. and larger.





"B" Feed Grinders

Grind grain mixtures as well as any single grain. When grinding plates are worn on one side they can be turned and used again. Non-bridging hopper, safety flywheel, cutting knife adjustable from outside—extreme simplicity assures long life.

Prices

No. 4.....$11.00
No. 8..... 40.00
No. 10..... 55.00

Cash f. o. b factory

Other Fairbanks-Morse Products are washing machines, Fairbanks scales, electric motors, a complete line of general service pumping equipment, pump jacks, power heads, etc.

NOTE TO DEALERS:

Fairbanks, Morse & Co. has a new sales plan that offers greatly increased opportunity to dealers in open territory. Write for details.

Home Water Plants

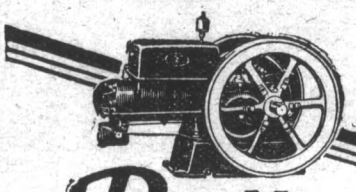
At an extremely low cost you can have water under pressure—hot or cold—in bathroom, kitchen, laundry, barn, watering trough—wherever you want it. The Fairbanks-Morse Home Water Plant operates automatically. There is an outfit to draw water from cistern, spring, shallow well or deep well. Write for special booklet.

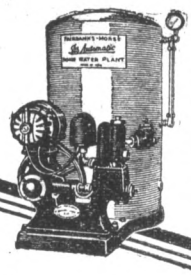
120 gallons per hour capacity pump, 60-cycle motor, 8-gal. galv'd tank, complete..$84.75

200 gallons per hour capacity pump, 60-cycle motor, 35-gal. galv'd tank, complete $115.00

Also larger sizes, for engine or electric drive, correspondingly low priced.

Prices quoted are cash f. o. b. factory





Better Quality Lower Price

Why over a million farmers depend upon Fairbanks-Morse Products

YOUR money, when wisely spent, will buy for you the greatest amount of value and service.

One way to get this result with the least amount of effort is to rely upon the name Fairbanks-Morse. Over a million farmers *know* this is true. And more are learning it every day.

Fairbanks-Morse stands for over 60 years of association with the American farmer and intensive study of farm needs.

It also stands for one of the nation's greatest manufacturing institutions—with the best modern facilities for manufacturing quality equipment at lowest prices. That, in simple terms, is the reason why Fairbanks-Morse farm power equipment offers you better value for your money.

Read the descriptions and prices and make your own comparisons. See the local Fairbanks-Morse *authorized* dealer, or check and mail the coupon. We will gladly send you latest descriptive literature.

See the local Fairbanks-Morse Authorized Dealer, or write us.

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Without any obligation on my part, send free descriptive literature and complete information concerning the items I have checked below:

- ☐ "Z" Engines
- ☐ Home Water Plants
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- ☐ Home Light and Power Plants
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Salt supplies the hydrochloric acid in the digestive juices. Feed 1 pound Colonial Special Farmer's Salt to each 100 pounds dry feed. Keep another supply within easy reach at all times. Stock wont eat too much. Mixes thoroughly; wont sift out; never hardens; free from gritty substances. Insures the animal getting enough salt without causing sore tongue. Get Free Book, "New Truth About Salt."

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BUILDING A MORE PROSPEROUS AGRICULTURE

MORE THAN 300,000 farmers are improving their farms and paying off their mortgages through the aid of Federal Land Bank Loans. They enjoy easier terms and lower interest rates. These helpful loans are made by the twelve Federal Land Banks, with combined assets of nearly $1,000,000,000. More than $45,000,000 of their capital stock has been supplied by active farmers through their farm loan associations.

Thus the twelve Federal Land Banks, with their more than 4,600 local national farm loan associations, make up the farmers' own borrowing and investment system, operating under Government supervision.

To provide funds for loaning, the Banks issue Federal Land Bank Bonds, secured by first mortgages on approved farms valued by Government appraisers at not less than double the amount of the mortgages. Every Bond is guaranteed jointly by *all* the twelve Federal Land Banks with combined capital and reserve exceeding $50,000,000. These Bonds are everywhere recognized as a standard investment security.

Every farm family can share in the benefits of this mutual system by owning Federal Land Bank Bonds. A beginning can be made with a single Bond. Denominations are $40, $100, $500, $1,000, $5,000 and $10,000. Coupon or registered form. Interest will be promptly paid twice yearly, and the principal when due. Both interest and principal are tax-free, inheritance taxes only excepted. If desired, the Bonds can be quickly sold for cash or used as security for a loan.

Federal Land Banks are located at

Springfield, Mass.	St. Louis, Mo.	Louisville, Ky.	Columbia, S. C.
New Orleans, La.	Berkeley, Cal.	St. Paul, Minn.	Houston, Texas
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Write for Federal Farm Loan Board Circular No. 16 descriptive of these Bonds, addressing nearest Federal Land Bank or the Fiscal Agent.

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The Largest Operator of Auto and Tractor Training Shops in the U.S. will train you for an Auto Expert's position. Earn from $3,000.00 a year up in the fastest-growing business in the world. You can do it.
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SEND FOR CATALOG before you buy. We also make a full line of traction and hand sprayers.
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Would Curb Corn Borer

Every Means Should be Used to Restrain this Menacing Pest

WOW! To see a squirming, fearful looking worm crawl through the walls of a wooden box terrified a feminine post office clerk. The box was mailed to the entomologist of the Agricultural College at East Lansing. The worm she saw was a healthy specimen of the European corn borer, which had tunnelled through the wood and gotten free. This incident reminded the Experiment Station Entomologist that tin is the only safe container for mailing these borers in, since they quickly eat through cardboard and wood, and even the corks of bottles are readily pierced by their strong mandibles.

This indicates the voracious feeding habits of this European corn borer, which insect is now known to be active in ten eastern counties of Michigan. Farmers are worried, especially those who have witnessed the work of the pest, and its ability to destroy corn and some 206 other plants.

Last week a conference was called at the editorial rooms of the Michigan Farmer to learn what could be done toward controlling the pest. Representatives of the United States Department of Agriculture, of the Michigan Agricultural College, the State Department of Agriculture, the State Farm Bureau, the State Grange, county agents, farmers, and field men of commercial concerns, together with press agents responded to the call.

Gives Life History of Borer.

At this conference the habits and the known methods of controlling the corn borer were presented by L. H. Worthley, expert in charge of European corn borer control of the United States Department of Agriculture. He told his interested listeners that the insect passes the winter as a full-grown larva in corn, stalks, stubbles, cobs or other vegetable refuse. This larva is nearly an inch long and about one-eighth of an inch thick. It has a dark brown or black head, with the color of the body ranging from light brown to dark brown and pink, and each segment marked with a row of dark spots. The underside of the body, however, is flesh colored and free from markings.

When warm weather arrives, the borer cuts a small opening from its winter quarters to the surface of the plant, preparatory to the escape of the moth, when hatched. Then the borer covers this opening with a thin substance and, remaining in the old tunnel, proceeds to spin its cocoon in which it changes to a pupa. It thus remains for nearly three weeks, when it emerges as a moth early in June. The moth sleeps during the day and goes forth in the evening and morning laying masses of eggs on the under side of the leaf or on the stock of the host plant. In about a week the eggs hatch, the young larva or borer being about one-sixteenth of an inch long, with a black head and a pale yellow body marked by the rows of dark spots mentioned above. It feeds a few days on the surface and then enters the plant, where its development is completed. It lives and eats in the plant tunnel till cold weather, and hibernates there throughout the winter.

This borer attacks any part of the corn plant above the ground, and every sort of corn. The stock, leaves, tassels, ears of dent, flint, sweet and pop corns all suffer; and, where it is well established, the extent of the damage is appalling.

Methods of Control.

A number of things can be done to restrain this pest. These consist of cultural and artificial practices. As yet no dependence can be placed upon parasites or other natural enemies, since these are not now in sufficient numbers to be of consequence. It may require many years before such agencies will make other control methods unnecessary.

So control practices are necessary. It is, of course, of the greatest importance that all the farmers in an infested area practice these restraining methods, since, during the moth stage, the fields of one farmer may suffer by moths flying from the fields of his neighbors. Here are the suggestions:

(1). Cut the corn early and as close to the ground as possible, for as the season progresses the borers go down in the stalk where there is more moisture.

(2). In the case of sweet corn, cut and remove stalks promptly after the corn has been harvested. Put the stalks in the silo, feed to live stock, or burn.

(3). Field corn should be cut as soon as mature, ensiloed, or fed to live stock, and all uneaten parts destroyed before the first of May, following. More of the fodder will be consumed by the animals if it is run through a cutting box or shredder.

(4). All the crop remnants, such as stalks, cobs, stubble, should be destroyed before May 1. Corn stubble can be broken off easily when frozen. Cornstalk butts should be kept separate from other barnyard refuse to permit burning. It would be well to include the crop remnants from the garden and weeds about the premises. Burning out fence rows, field borders, roadsides, etc., is also important.

(5). Late in the autumn, preferably in November or December, the corn field should be plowed thoroughly to a depth of six inches, at least.

(6). Since late planted corn is less likely to become infested, growers find it effective to plant a small patch of early corn in which the moths lay their eggs. This crop is harvested early and fed or ensiloed. The main crop is then planted later than usual. Here caution should be exercised, for unless the trap crop is harvested at the time the corn is mature, or preferable before, it becomes a menace to the main crop rather than an aid.

(7). Quarantines have helped materially in slowing down the spread of the borer. In Ohio last year, 934,466 automobiles were stopped, and from them 34,867 ears of corn containing hundreds of borers, were taken. Some of these cars would have carried infected corn hundreds of miles from the quarantined districts. In this connection an honor system was satisfactorily established, which reduced to a minimum the inconvenience to which the traveling public was put by these measures.

Must Work Together.

In such work, community effort is essential. Success depends upon every person in the infested area cooperating. The unwillingness of one farmer to properly care for his premises will put to naught the work done by his neighbors. This led those at the conference to believe that mandatory compliance must be provided for. Such compliance requires legislation.

Furthermore, repressive measures successfully carried out in Michigan will be of benefit to other states. This makes the problem a national one, and justifies cooperation with the federal government. The United States Department of Agriculture already has its agents on the job, and appropriations for fighting the pest have been made by congress, conditional upon the financial cooperation of affected states. That no duplication of work result, perfect coordination of effort between the state and federal government is desired. If this is done, it will insure the maximum of good from the minimum of cost to state and nation. These facts, coupled with the urgent need for immediate action to stay the

(Continued on page 160).

A Traveler's Diary

By M. A. Cobb

TO one who is interested in agriculture and making the trip by train from Michigan to New Orleans in mid-winter, nature greets the traveler with some old friends and, of course, with many new ones.

One friend that may seem curious to many, visible throughout the entire distance, is the sycamore, or cottonwood. The white gleam of the bark made the tree conspicuous even from a through train. The tree occurs very plentiful in the south, and even on the Gulf of Mexico where it is used as a shade in the low lands.

Another friend is our principal agricultural product—corn. Standing stalks were visible all the way, for the southern harvest the most of the crop on hoof—a practice becoming more common in Michigan. Corn may be well named the King of Crops. Hundreds of 196-pound sacks of corn were stacked on the wharves of Mobile, New Orleans, for shipment to other countries. In fact, one ship was loading corn for Cuba on a wharf at New Orleans. "What do the people of Cuba want with our corn?" was my question. "Why, Cap," replied a grinning negro stevedore, "they make corn whiskey." Perhaps he is right. I learned that hundreds of thousands of bushels of our principal crop has been shipped from our southern ports.. This is a large factor in boosting the price of corn.

Here are some brief notes observed from the windows, gained from talking with a native who happened to be on the car.

In Ohio, barns appeared older, and smaller than in Michigan. A sight of some of the barns in Gratiot county, in Michigan, would make these people "sit up and take notice." Farm houses appear good. Cornstalks standing in nearly every corn field.

Kentucky—Barns still smaller than in Ohio; cornstalks standing and small, not like the Ohio corn; mules and more mules; negroes and "most" negroes; limestone outcropping; farm houses small and battered; tobacco drying, and storage sheds on most farms. "Yes, boss, we raise lots of tobacco," remarked a Kentuckian. "Yes, those are tobacco drying sheds. We fire (dry) them eight days with logs, and two to four weeks with sawdust (smoulder). We plant tobacco in May, using a planter, used to do it by hand about as you row potatoes. We cultivate about as you do potatoes. Our yields are 700 to 1,000 pounds per acre. The best tobacco area is around Lexington, where they raise the Burley tobacco. It cures lighter in color and is thin leafed. Excuse me, boss, I just took a chew before you came." Here he gave a demonstration of an art which, thank God, we have lost in the north. I had noticed that all coaches were liberally supplied with spittoons in all cars.

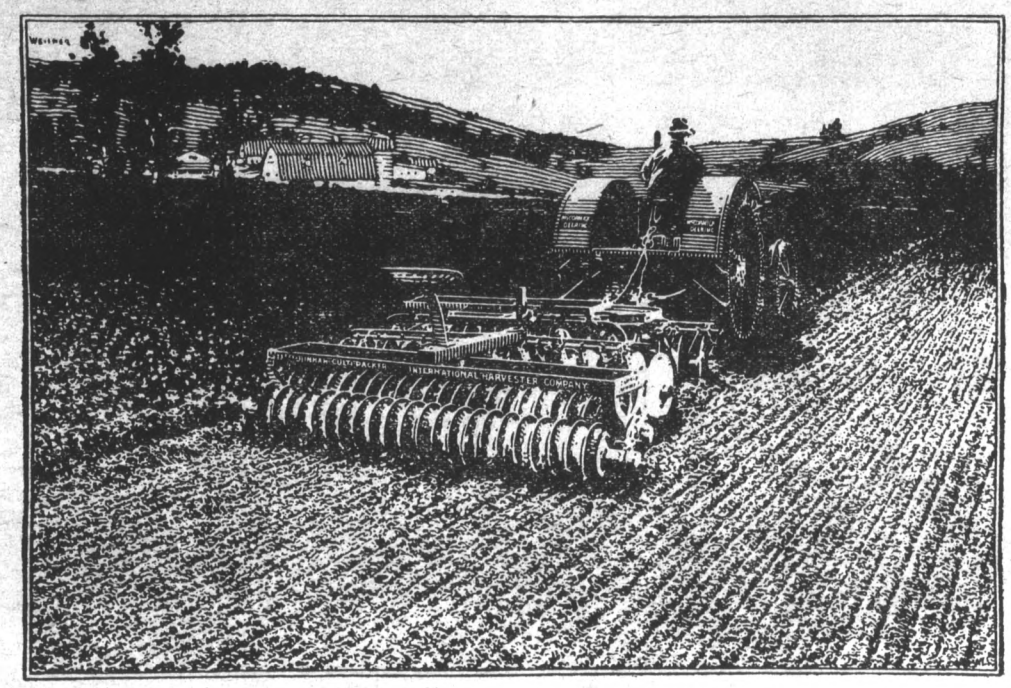
Tennessee—More tobacco, less corn, houses smaller, and some on posts, lots of standing timber—birch, sycamore, oak and pine in evidence—mountains.

"Cold, yes, sah," remarked a native. "You know, we can't stand cold like you northerners." Leaving Michigan on December 29, with bitter cold weather on, it was expected that it would be warmer towards the south. However, the cold continued in Ohio, Kentucky and Tennessee. There is no use of going to these states to avoid the cold.

Northern Alabama—Mountains, lots of trees; houses on posts; every house has one fireplace, many have more than one; houses whitewashed; all farm land curiously terraced, crops rowed around the hills, standing cotton stalks more noticeable.

Tomorrow we visit Muscle Shoals, that well-known engineering achievement.

McCORMICK-DEERING TILLAGE TOOLS



Heavy Yields Follow Good Tillage

and Here Are Three Profit-Making Implements

The McCormick-Deering Disk Harrow is a simple and efficient implement, built and trussed like a steel bridge, to serve many years. You will like the details and conveniences—the dust-proof bearings and the bearing oil cups set above the frame, the built-in angle-steel weight boxes, the oscillating disk scrapers, the forecarriage, etc. Made in sizes for everybody—4 to 10 feet. All sizes can be equipped with tandem attachment. Double disking more than pays for itself.

The McCormick-Deering Leverless Disk Harrow is a genuine tractor disk, not a made-over horse harrow. It is built for heaviest duty. It is controlled entirely from the driver's seat, without levers, yet it is very simple. Merely backing the tractor automatically sets the angle of both front and rear gangs. When the tractor starts forward the gangs hold that angle until released by a pull on the rope. In 5 to 10-foot sizes to fit your power.

The Dunham Culti-Packer shown above with the leverless disk harrow has no equal as a seed-bed finisher. It pulverizes the soil, fills out air spaces, and saves moisture content. Following the drill, it helps the little plants to get a quick start, firmly set in finely mulched soil. Use it to prevent winter-killing of wheat; to rejuvenate meadows, etc. It is far ahead of a roller for small grains. Made in eight sizes, for horse or tractor use.

McCormick-Deering Tillage Tools combine these essentials — good work, long life and convenience. They are of practical design, their construction being based on ninety-three years of farm and factory experience. They are priced on the basis of economical quantity production, and as an investment they offer you attractive returns. *To fill all your Tillage Tool needs see the McCormick-Deering dealer. It Pays!*

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Handy "Bayer" boxes of 12 tablets

Also bottles of 24 and 100—Druggists.

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Stop that shaking that loosens nuts, screws and bolts, and that jolting over rough spots that breaks crankcase arms. A Pioneer Engine Support saves repairs, stiffens frame, holds engine firmly in line and gives that even flow of power that makes driving a pleasure.

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Send all orders to 190 N. State St., Chicago, Ill.

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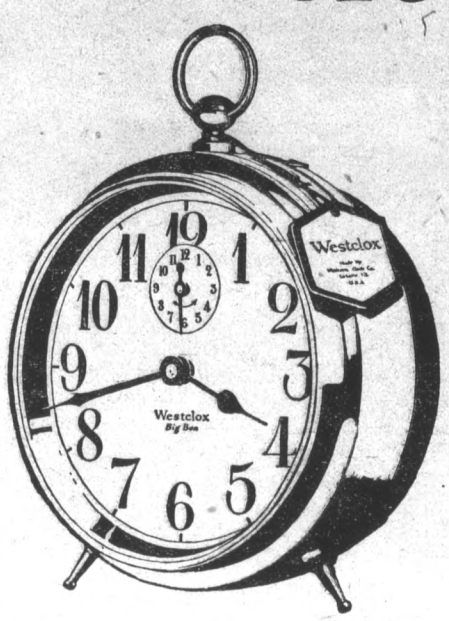

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WHEN a galloping flivver can cover ground at the rate of twenty-five miles an hour or better, you can figure a trip to town in minutes.

To figure successfully in minutes, you should have some way of keeping track of them. A sure and inexpensive way to keep tab on your time is to put a Westclox on the job.

Besides timing the household all day long, it will call you on the dot in the morning. You can pick Westclox by the six-cornered, orange-bordered tags and the trade mark Westclox on the dial.

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Big Ben	Baby Ben	America	Sleep-Meter	Jack o' Lantern	Pocket Ben	Glo-Ben
$3.25	$3.25	$1.50	$2.00	$3.00	$1.50	$2.25

You Can Grow **GIANT WASHINGTON ASPARAGUS** *Easily*

Easily grown, our Giant Roots planted this spring can be cut next year. Tender, palatable, from the purplish green tips to the ends of the gigantic stalks.

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Just a packet of seeds, or 50 roots, will plant three 50-foot rows—more than enough for average family requirements. Write today for *free* booklet about this wonderful Asparagus.

SEED PACKET (very specially selected seeds) $1.00
50 GIANT ROOTS $5.00 25 GIANT ROOTS $3.00
Cultural directions included—by parcel post prepaid anywhere.
An attractive proposition is offered Commercial Growers.

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Seed Corn and Seed Oats

My drying house is filled with Clement's Improved White Cap yellow dent and Duncan's yellow dent seed corn. Fire dried on racks, ear tested, guaranteed germination from high yielding stock. Registered and certified Worthy Oats. Developed by the Michigan Agricultural College. Heavy yielders with a stiff straw. Write for prices.

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ONLY **50c** To End Broken Hame Strap Troubles

Premax Hame Fastener is the only flat link fastener; quick, easy lever method of adjustment; pressed steel with rust-proof finish; adjustable—never too tight or too loose; spring snap—cannot drop off when harness is removed. Send 50 cents for a pair.

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Sizes 5-16" to 5-8" on ring; stamped from hard, cold-rolled steel; white nickled finish; fit hexagon or square nuts on auto, radio, lawn mower, corn sheller, and other articles. Send 25 cents for complete set of six.

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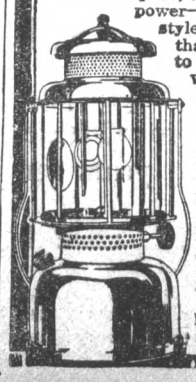
The **Coleman Quick-Lite**

Gives a pure, white light of 300 candle power—more light than 20 old style oil lanterns. Brighter than electricity. No wicks to trim. No chimneys to wash. Won't blow out. Can't spill fuel or explode even if tipped over and rolled around. Thousands in use. Will last a lifetime.



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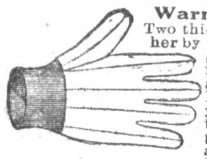

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WHY CONTINUE TESTING?

MANY farmers ask this question after they have tested their herds one day in an association. L. C. Payne completed his second year in the Macomb Association No. 1 during September. One cow in the herd, a four-year-old grade Holstein, produced the first year 7,502 pounds of milk and 239.8 pounds of fat. The last six weeks of the first year she was well fed and put into good condition. After freshening she was fed according to production, and the second year produced 14,184 pounds of milk and 484.3 pounds of fat. The increase in the second year over the first was 6,682 pounds of milk and 244.5 pounds of fat. The increased return over feed cost in the case of this one cow more than paid the testing fees the second year.

CURB THE CORN BORER.

(Continued from page 158).

further progress of this pest, led those present at the conference, unanimously to adopt the following resolution:

Whereas, the European Corn Borer has heavily infested southern Canada, and has made its appearance to an alarming and serious extent in the states of Michigan, Ohio, Pennsylvania and New York, and

Whereas, the United States Department of Agrciulture, in cooperation with Michigan agencies, has conducted certain limited control measures during the past four years, and

Whereas, not only the corn crop, but also other crops in Michigan are threatened by the invasion of this serious European pest, and

Whereas, the congress of the United States has appropriated certain funds for the control of the European Corn Borer, said control measures to be conducted cooperatively with state authorities.

Therefore, be it resolved, that we, in conference at the office of The Michigan Farmer, in the City of Detroit, this twenty-sixth day of January, 1925, hereby approve, recommend, and petition the legislature, now in session, to appropriate not less than $25,000 for each of the years 1925 and 1926, said appropriation to be made in addition to the regular budget of the Michigan State Department of Agriculture, to be spent cooperatively with federal and other authorities vested with this control work, and

Be It Further Resolved, that such legislation, or Department of Agriculture rules and regulations, shall be promulgated as will make mandatory compliance with whatever may be officially recommended by the United States Department of Agrciulture, or other authoritative agencies, to insure maximum control of the said European Corn Borer.

(Signed):

R. H. Pettit, professor of entomology at Michigan Agricultural College; Irving W. Knapp, Michigan State Grange, Monroe; M. N. Noon, Michigan State Farm Bureau, Jackson; R. E. Decker, agricultural agent, Jackson; D. F. Rainey, Michigan Crop Improvement Association, East Lansing; H. S. Osler, agricultural agent, Ann Arbor; R. G. Vivian, president Monroe County Farm Bureau, Monroe; L. Bolander, agricultural agent, Howell; A. L. Pino, gardener, East Lansing; H. L. Heckmann, farmer, Macomb county; L. R. Taft, horticulturalist of the State Department of Agriculture; E. M. Kidman, agricultural agent, Port Huron; Wm. Murphy, agricultural agent, Mt. Clemens; Charles E. Martin, with W. R. Roach Co.; E. J. Leenhouts, New York Central Lines; Fred W. Henshaw, Detroit News; Burt Wermuth, Michigan Farmer.

Please Return Cards.

Recently the federal authorities mailed return post cards to each farmer in the infected counties of Michigan. Six questions are asked regarding the control of this pest. No postage is required to return these cards. It is urgently requested that every farmer receiving these cards fill them out and mail at the earliest date. The information will prove most valuable in the hands of the authorities in working out the details of plans for suppressing the corn borer.

Here is some recognition of the great industry of agriculture: A noted Chicago physician has indicated to convalescing patients in need of light out-of-doors employment, that farming is not considered a light occupation.

The Adventures of **BURGESS RADIO BATTERIES**

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They're in the Wireless Room of the Leviathan

From U. & U. Photos *Standard Equipment of United States Submarines*

Remarkable are the adventures of Burgess Radio Batteries. And where there's danger—upon, above or below the earth, sky and sea, will be found Burgess Batteries—laboratory products.

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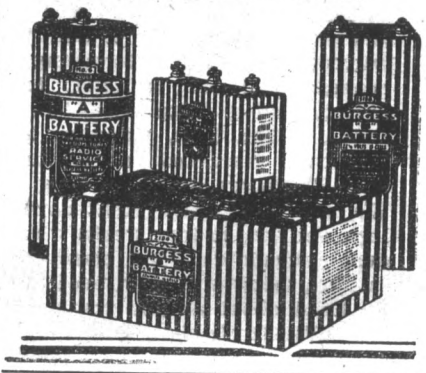

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203 E. Main St., Van Wert, Ohio

Some Grade Suggestions

For Better Marketing Results in Grapes and Potatoes

By Wm. H. Essinger
State Dept. of Agriculture

WITH grapes we have a local problem. This crop is raised mostly in two counties, Van Buren and Berrien. This crop has assumed a size of importance both in volume and manner of transportation. With grapes, we meet the truck proposition at its peak. It is hard to obtain an accurate figure on just how much was moved by truck in 1924. Some sources claim as high as seventy per cent moved out of Berrien county by truck. My best guess would place it at forty per cent in Berrien and less than ten per cent in Van Buren. Be that as it may, it is of sufficient consequence to cause apprehensive thoughts along this line. I am not against the truck movement, but as the logical hours for moving their loads are between eight in the evening and four in the morning, you can readily see that some means must be devised to inspect this forty or more per cent being shipped by truck. Perhaps some of the grape men will speak of this, so I'll pass on.

The Market News reports over 4,000 cars shipped by rail and boat. Van Buren county claims 2,400, which leaves 1,600 for Berrien. If forty per cent of Berrien county grapes went by truck, and ten per cent of Van Buren's the same way, adding to that what was sold to the juice plants, makes a total of close to 6,000 cars for Michigan.

We should make some changes in our present grape law (let me say here that I am still expressing others' thoughts). Our four-quart Climax basket grade, now called the "Choice Table Grape Grade," should be changed to "Fancy Table Grapes." Every sales agency in the deal will tell you so, and where can you get a better criterion? Change this tolerance and make it more practicable; have five per cent on berries and ten per cent on bunches. Five per cent on berries would permit thirty-five undersized, green berries; that's enough. Ten per cent on bunches would not mean over two bunches less compact in construction, and that is not too many to make it practicable for proper packing.

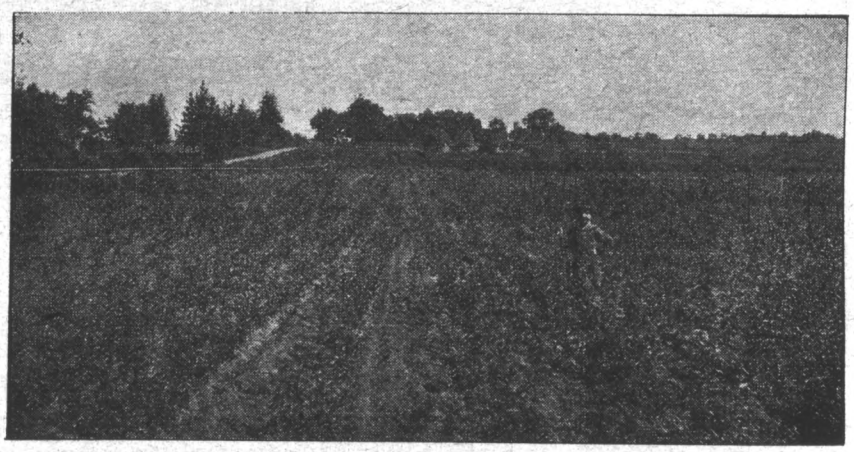
Your "Choice Grapes" or "No. 1 Jumbo," should call for just as good a pack or grade as the "Fancy" grade, with an increase in tolerance. Growers are packing it that way now to save time. It should be sold on its merits; if you tighten up on your "No. 1 Jumbo" and put the balance of the crop in "No. 2 Jumbo," you will force a distinction between the two.

Michigan should require the variety name on the basekts, also exclude rot in the "No. 1 Jumbo." By this, I mean it should not be included in the tolerance. Keep your four-quart "Climax" basket in the lime-light; the Eighteenth Amendment does not, nor never will, affect this package. Last year's supply is not a consideration in this as it is with the "Jumbo" trade. With any kind of luck the 1924 season would have proven Michigan's claim to the best table grape on the market, but the danger of approaching frosts made all plans fail. We did the best we could, and that's the very best anybody can do. The first sales of four quart cases reached the unexpected price of thirty-five cents per case and continued for some time. Under ordinary normal climatic conditions, it would have been a record breaker.

Potatoes.

Michigan rolls on an average of 20,000 carloads per year. It is a big deal. In October, 1923, seventy per cent of this crop was being shipped under-grade and our potatoes were being discriminated against in most large markets. There remained but two things to do; either grade them or leave them at home on the farms. This was a forced condition. About the fifteenth day of October, 1923, the potato grades were being made effective through and by the State Department of Agriculture's Inspection Service. Six men were assigned to the task of inspecting between 400 and 500 loading points, with from one to seven buyers at each place. Before ten days had been spent on this work the records at Lansing showed why our potatoes were not wanted in the markets. As high as seventy pounds to a bag of cull stock was being shipped out by some loaders, from twenty to thirty pounds under-grade was considered a fair bag of potatoes. Think of it—we were asking the housewife to throw away one-half of the amount she purchased. They do not enjoy this; neither do they want to spend any extra time in the preparation of scabby or ill-shaped stock. They want them smooth and clean, and have a right to expect them.

The potato is a wholesome, nutritious food product when properly prepared; it is a well-known article and requires no introduction, only as to well-graded quality. Grading, be it through voluntary or compulsory methods, is the keynote here; it alone will produce the quality. In this field there seems to be a long-standing bond between the 150-pound bag package and something cheap. I believe the sooner we sever this bond the quicker we shall establish the potato as an article of appreciation and value. A smaller bag would permit the dealer to dispense with one man in the handling thereof, and they would be handled with more care. Smaller and more attractive packages, such as a twenty-pound box or a ten or twenty-pound white cloth bag, would get away from the old-time peck measure (which also reminds of something cheap), and they would find their place in the modern kitchenettes. Quality is the main thing. Compulsory inspection has, in part, put us back in the running, and, continuing this, we shall soon be reinstated. It is safe to say that without the inspection service of 1923, the big 1924 crop would not find a market.



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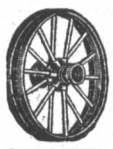

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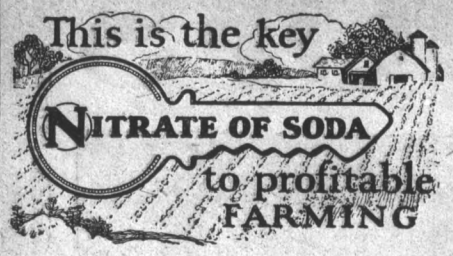

DO YOU KNOW that for every pound of Phosphoric Acid taken from the soil, a Cotton crop takes three pounds of Nitrogen, Tobacco takes six pounds of Nitrogen, Apples and Timothy take five pounds of Nitrogen, Corn takes two and one-half pounds of Nitrogen, Wheat and Potatoes two pounds of Nitrogen.

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Stabilizing Acreage of Crops

By Farmer Allen

WILL the farmers ever be able to know the proper acreage of each crop to grow yearly, so there will not be a surplus of one and a scarcity of another, making them lose all they make on one crop, by the low price, on account of the over-production of the other?

Farming never will be on a very sure and safe foundation, until some such plan is worked out and put into operation. There is no style of farming today on as safe a foundation for profit to the farmer, as the raising of sugar beets, because when the factories have contracted the acreage they can handle, they stop and there is no surplus to lower the price.

If a similar plan could be devised to restrict the acreage of other crops sown and planted, there would be less difficulty from over-production, which makes for low prices and losses to the farmers.

For illustration: Michigan has sugar mills enough to handle about 200,000 acres of sugar beets each fall, but in 1923 there were only 98,000 acres grown in Michigan, while the mills could have handled 100,000 more acres.

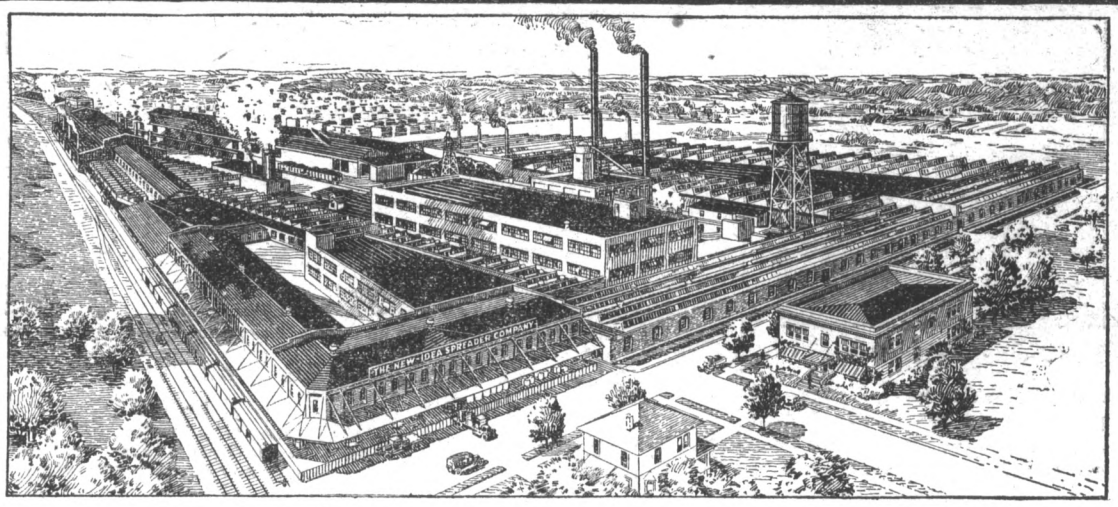
In 1923 there were 568,000 acres of beans grown in Michigan and, if 100,000 acres of these beans had been put to beets, the beans would have brought at least $2.00 more per hundred, because the Michigan crop of beans in 1923 produced about one-half of the United States' annual crop, and on account of this enormous supply, prices declined. The farmers did not receive as much for the extra large crop, as they would have received, if 100,000 less acres of beans had been planted.

By careful figures I estimate that 468,000 acres of beans grown in 1923, instead of 568,000, would have brought the farmers in the state of Michigan as much as $3,000,000 more than did the extra large surplus crop bring them.

The beet acreage in 1923 averaged a return of $72 per acre throughout the state, and 100,000 more acres, which could have been handled by the mills, would have brought into the farmers' hands $7,200,000 additional money, which, added to the $3,000,000 more, which the farmers would have received for normal bean acreage would make $10,200,000 of more money into the farmer's hands, just on two crops, for the year 1923. Farmers this year should beware lest they sow too many beans, following the present attractive prices.

Some government officials have been talking about government aid for farmers to offset crops raised at a loss, which seems like an absurd idea. If the acreage of crops grown could be stabilized each year in connection with our tariff, the farmers, as a whole, would only occasionally meet with serious losses. I believe this can and will be done some time in the future, and the quicker the better.

Beans are a good fair price now and Michigan can keep them so, if the farmers will plant only a normal amount, which is about 450,000 acres in the state of Michigan. Beets are also a good price, and let's raise all the mills can handle.



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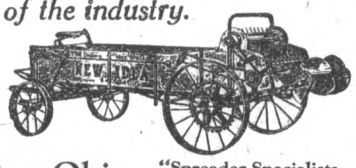
WHY has New Idea always given more real spreader value for the money? Read a big part of the answer in the picture of the great New Idea plant shown above. Here is one of the most modern implement factories in the world—perfectly equipped for tremendous production—*on one standardized specialty.* It is not a "full line" factory.

This giant plant is free from debt of any kind — either bonded or mortgaged — and back of it is a concern with nearly two million dollars of paid in capital.

Twenty-five years of specialized spreader experience! Ample resources. It is not surprising that the originators of the wide-spreading spreader can offer you today — in the Model 8 Spreader—*the greatest spreader value in the history of the industry.*

See the New Idea Spreader at your dealers — or mail the coupon for catalog, prices and details of our money-saving offer.



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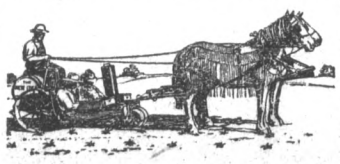

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URGES LAW OBEDIENCE BY OFFICIALS.

A MOVEMENT to secure better enforcement of the prohibition law was started at the White House a few days ago, when a committee representing the citizens' committee of 100 for law enforcement presented resolutions commending to the people, and particularly to their official representatives, the attitude of the President in his conscientious obedience to the provisions of the eighteenth amendment in the hope that the example of the first citizen of our country may induce those who are now violating the prohibitory statutes to accept his leadership in conduct, and to indorse in practice the integrity of his fidelity to the supremacy of the law.

SITTING IN THE LIGHT.

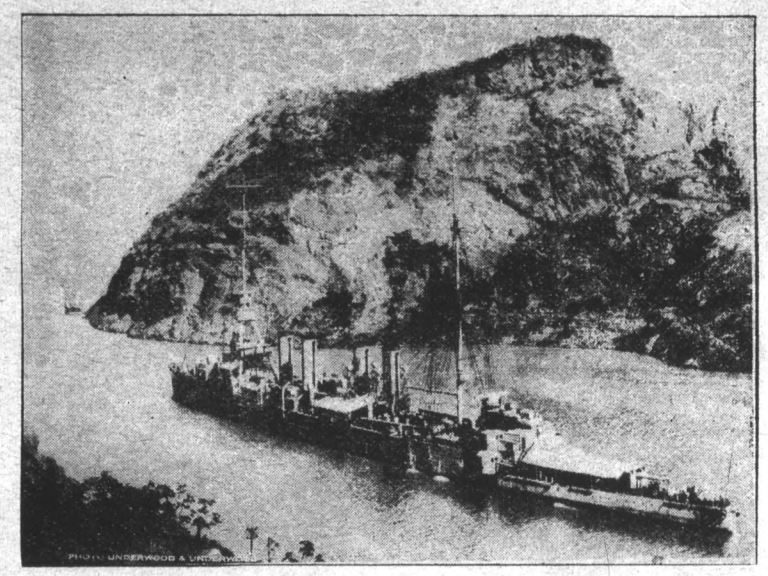
UNCLE EZRA remarked the other day: "If they ever get them radiographs working so they can get pictures of the insides of men's minds this world will go forward on high. For there is no use arguing that a fellow 'cleans house' whenever he's exposed to the public."

A cow giving 600 pounds of butterfat returns $158 annually, above her feed cost, while the cow producing 100 pounds makes a return of only $8. With six times the production the return is nearly twenty times as great, which shows the absolute necessity of weeding out the low producers and replacing them with more profitable individuals.

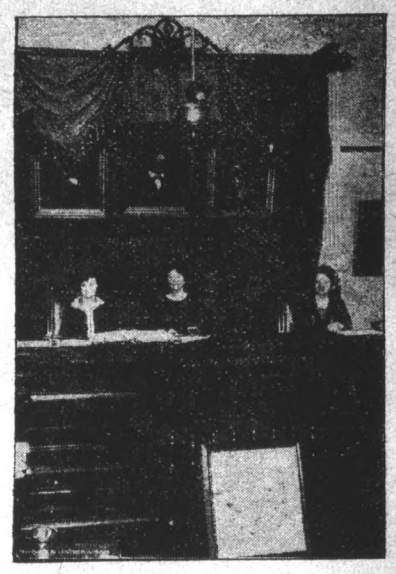
One way to dodge excessive transportation costs is to grow products of quality.

WORLD EVENTS IN PICTURES

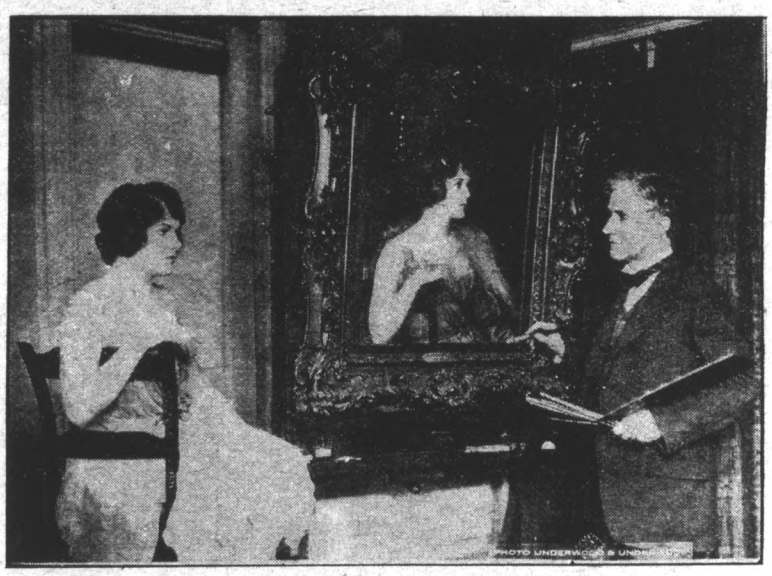
Barney Lynch, of New York, risked his eyesight by diving through a ring of flames.



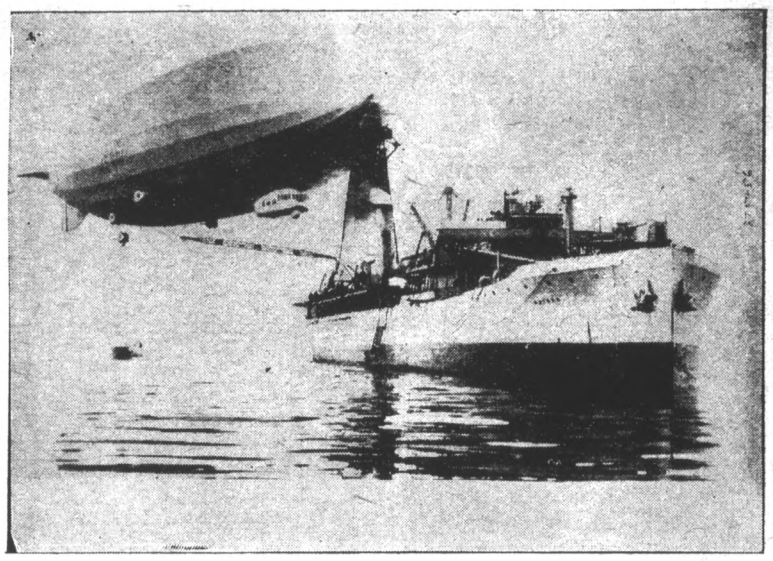
The U. S. Scout Cruiser Omaha passing through the Panama Canal on its way from the Atlantic to the Pacific Coast to take part in the grand maneuvers of the Pacific fleet.



For the first time in history women preside on a State Supreme Court bench in Texas.



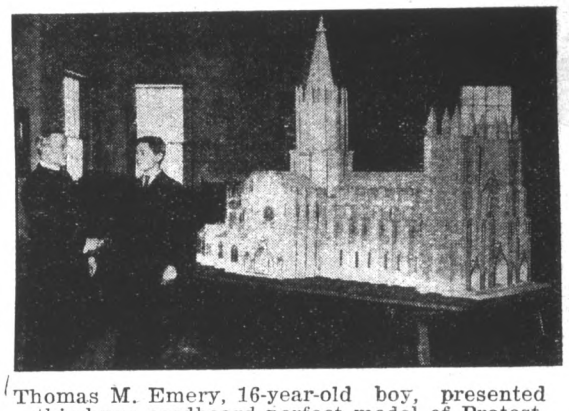
Katherine Spencer Smith posed for John S. Eland, noted English portrait painter, who selected her as the ideal American Beauty. She is the daughter of Alvin W. Smith.



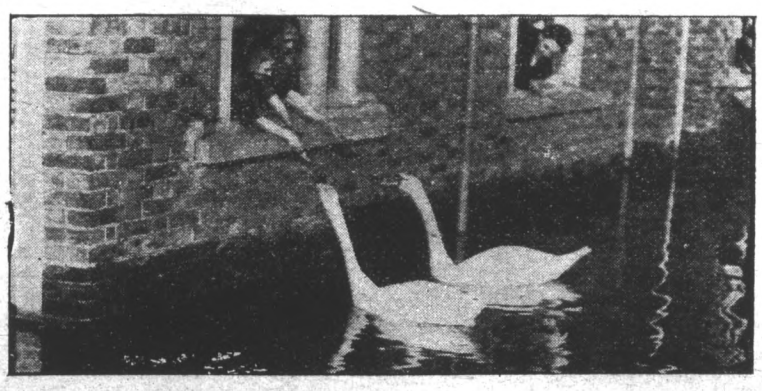
The U. S. S. Patoka, U. S. Navy dirigible tender, steamed up the Chesapeake Bay with the U. S. Los Angeles, latest addition to the U. S. air fleet, moored to its mast.

F. B. Kellogg (and wife) has been called back from U. S. Embassy to Court of St. James, to be the next Secretary of State.

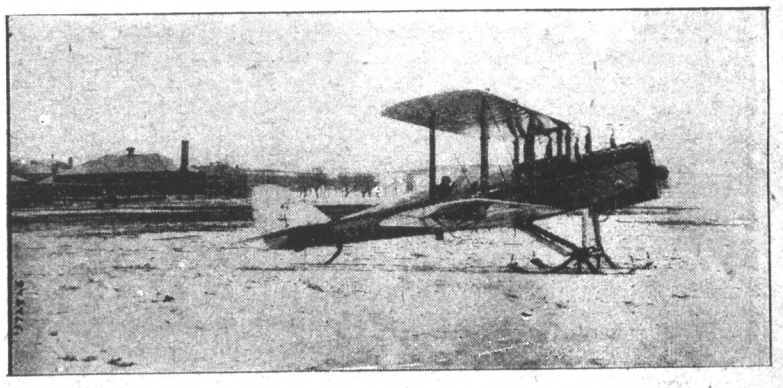
Congressman Everett Sanders, of Indiana, will succeed C. Bascom Slemp as secretary to President.



Thomas M. Emery, 16-year-old boy, presented this huge cardboard perfect model of Protestant Cathedral of N. Y. to Bishop Manning.



During the worst inundation in England since 1903, people could not get out to feed the swans so the swans came to the house to be fed.



Uncle Sam's air mail goes forward on "skiis" when there is more than a foot of snow on the ground, as there generally is in the winter time on the stretch from Omaha to Salt Lake City.

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SO BIG--*By Edna Ferber*

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HIS face lighted with thought. "Tell you what. My place is just this side the school, next to Bout's place. I could start for you the fire, mornings, in the school. And thaw the pump and bring in a pail of water. This month, and January and February and part of March, even, now I don't go to market on account it's winter, I could start you the fire. Till spring. And I could come maybe three times a week, evenings, to Pool's place, for lessons." He looked so helpless, so humble, so huge; and the more pathetic for his hugeness.

She felt a little rush of warmth toward him that was at once impersonal and maternal. She thought again, "Why, the dear thing! The great helpless big thing! How serious he is! And funny." He was indeed both serious and funny, with the ridiculous cup cake in his great hand, his eyes wide and ruminant, his face ruddier than ever, his forehead knotted with earnestness. She laughed, suddenly, a gay little laugh, and he, after a puzzled pause, joined her companionably.

"Three evenings a week," repeated Selina, then, from the depths of her ignorance. "Why, I'd love to. I'd—love to."

THE evening turned out to be Tuesdays' Thursdays, and Saturdays. Supper was over by six-thirty in the Pool household. Pervus was there by seven, very clean as to shirt, his hair brushed till it shone, shy, and given to dropping his hat and bumping against chairs, and looking solemn. Selina was torn between pity and mirth. If only he had blustered. A blustering man puts the world on the defensive. A gentle giant disarms it.

Selina got out her McBride's grammar and Duffy's Arithmetic, and together they started to parse verbs, paper walls, dig cisterns, and extract square roots. They found study impossible at the oilcloth-covered kitchen table, with the Pool household eddying about it. Jakob built a fire in the parlor stove and there they sat, teacher and pupil, their feeting resting cosily on the gleaming nickel railing that encircled the wood burner.

On the evening of the first lesson Roelf had glowered throughout supper and had disappeared into the workshed, whence issued a great sound of hammering, sawing, and general clatter. He and Selina had got into the way of spending much time together, in or out of doors. They skated on Vander Sijde's pond; together with the shrieking pigtails they coasted on the little slope that led down from Kuyper's woods to the main road, using sleds that had been put together by Roelf. On bad days they read or studied. Not Sundays merely, but many week-day evenings were spent thus. Selina was determined that Roelf should break away from the uncouth speech of the countryside; that he should at least share with her the somewhat sketchy knowledge gained at Miss Fister's select school. She, the woman of almost twenty, never talked down to this boy of twelve. The boy worshipped her inarticulately. She had early discovered that he had a feeling for beauty—beauty of line, texture, color, and grouping—that was rare in one of his years. The feel of a satin ribbon in his fingers; the orange and rose of a sunset; the folds of the wine-red cashmere dress; the cadence of a spoken line, brought a look to his face that startled her. She had a battered volume of Tennyson. When first she read him the line beginning, "Elaine the fair, Elaine the lovable, Elaine, the lily maid of Astolat—" he had uttered a little exclamation. She, glancing up from her book, had found his eyes wide, bright, and luminous in his lean dark face.

"What is it, Roelf?"

He had flushed. "I didn't say nothing—anything. Start over again how it goes, 'Elaine—'"

She had begun again the fragrant lines, "Elaine the fair, Elaine the lovable . . ."

Since the gathering at Ooms's hall he had been moody and sullen; had refused to answer when she spoke to him of his bid for her basket. Urged, he would only say, "Oh, it was just fun to make old Ooms mad."

Now, with the advent of Pervus DeJong, Roelf presented that most touching and miserable of spectacles, a small boy jealous and helpless in his jealousy. Selina had asked him to join the tri-weekly evening lessons; had, indeed, insisted that he be a pupil in the class round the parlor stove. Maartje had said, on the night of Pervus DeJong's first visit, "Roelf, you sit, too, and learn. Is good for you to learn out of books the way teacher says." Klaas Pool, too, had approved the plan, since it would cost nothing and, furthermore, would in no way interfere with Roelf's farm work. "Sure; learn," he said, with a large gesture.

Roelf would not. He behaved very badly; slammed doors, whistled, scuffled on the kitchen floor, made many mysterious trips through the parlor up the stairs that led off that room, ascending with a clatter; incited Geertje and Jozina to quarrels and tears; had the household in a hubbub; stumbled over Dunder, the dog, so that that anguished animal's yelps were added to the din.

Selina was frantic. Lessons were impossible amidst this uproar. "It has never been like this before," she assured Pervus, almost tearfully. "I don't know what's the matter. It's awful."

Pervus had looked up from his slate. His eyes were calm, his lips smiling. "Is all right. In my house is too still, evenings. Next time it goes better. You see."

Next time it did go better. Roelf disappeared into his work-shed after supper; did not emerge until after DeJong's departure.

There was something about the sight of this great creature bent laboriously over a slate, the pencil held clumsily in his huge fingers, that moved Selina strangely. Pity wracked her. If she had known to what emotion this pity was akin she might have taken away the slate and given him a tablet, and the whole course of her life would have been different. "Poor lad," she thought. "Poor lad." Chided herself for being amused at his childlike earnestness.

He did not make an apt pupil, though painstaking. Usually the top draught of the stove was open, and the glow of the fire imparted to his face and head a certain roseate glow. He was very grave. His brow wore a troubled frown. Selina would go over a problem or a sentence again and again, patiently, patiently. Then, suddenly, like a hand passed over his face, his smile would come, transforming it. He had white strong teeth, too small, and perhaps not so white as they seemed because of his russet blondeur. He would smile like a child, and Selina should have been warned by the warm rush of joy that his smile gave her. She would smile, too. He was as pleased as though he had made a fresh and wonderful discovery.

"It's easy," he would say, "when you know it once." Like a boy.

He usually went home by eight-thirty or nine. Often the Pools went to bed before he left. After he had gone Selina was wakeful. She would heat water and wash; brush her hair vigorously; feeling at once buoyant and depressed.

Sometimes they fell to talking. His wife had died in the second year of their marriage, when the child was born. The child, too, had died. A girl. He was unlucky, like that. It was the same with the farm.

"Spring, half of the land is under water. My piece, just. Bout's place, next to me, is high and rich. Bouts, he don't even need deep ploughing. His land is quick land. It warms up in the spring early. After rain it works easy. He puts in fertilizer, any kind, and his plants jump, like. My place is bad for garden truck. Wet. All the time, wet; or in summer baked before I can loosen it again. Muckland."

Selina thought a moment. She had heard much talk between Klaas and Jakob, winter evenings. "Can't you do something to it—fix it—so that the water will run off? Raise it, or dig a ditch or something?"

"We-e-ell, maybe. Maybe you could. But costs money, draining."

"It costs money not to, doesn't it?"

He considered this, ruminatively. "Guess it does. But you don't have to have ready cash to let the land lay. To drain it you do."

Selina shook her head impatiently. "That's a very foolish, short-sighted way to reason."

He looked helpless as only the strong and powerful can look. Selina's heart melted in pity. He would look down at the great calloused hands; up at her. One of the charms of Pervus DeJong lay in the things that his eyes said and his tongue did not. Women always imagined he was about to say what he looked, but he never did. It made otherwise dull conversation with him most exciting.

His was in no way a shrewd mind. His respect for Selina was almost reverence. But he had this advantage: he had married a woman, had lived with her for two years. She had borne him a child. Selina was a girl in experience. She was a woman capable of a great deal of passion, but she did not know that. Passion was a thing no woman possessed, much less talked about. It simply did not exist, except in men, and then was something to be ashamed of, like a violent temper, or a weak stomach.

By the first of March he could speak a slow, careful, and fairly grammatical English. He could master simple sums. By the middle of March the lessons would cease. There was too much work to do about the farm—night work as well as day. She found herself trying not to think about the time when the lessons should cease. She refused to look ahead to April.

One night, late in February, Selina was conscious that she was trying to control something. She was trying to keep her eyes away from something. She realized that she was trying not to look at his hands. She wanted, crazily, to touch them. She wanted to feel them about her throat. She wanted to put her lips on his hands—brush the backs of them slowly, moistly, with her mouth, lingeringly. She was terribly frightened. She thought to herself: "I am going crazy. I am losing my mind. There is something the matter with me. I wonder how I look. I must look queer."

She said something to make him look up at her. His glance was mild, undismayed. So this hideous thing did not show in her face. She kept her eyes resolutely on the book. At half-past eight she closed her book suddenly. "I'm tired. I think it's the spring coming on." She smiled a little wavering smile. He rose and stretched himself, his great arms high above his head. Selina shivered.

"Two more weeks," he said, "is the last lesson. Well, do you think I have done pretty good—well?"

"Very well," Selina replied, evenly. She felt very tired.

The first week in March he was ill, and did not come. A rheumatic affliction to which he was subject. His father, old Johannes DeJong, had had it before him. Working in the wet fields did it, they said. It was the curse of the truck farmer. Selina's evenings were free to devote to Roelf, who glowed again. She sewed, too; read; helped Mrs. Pool with the housework in a gust of sympathy and found strange relief therein; made over an old dress; studied; wrote all her letters (few enough), even one to the dried-apple aunts in Vermont. She no longer wrote to Julie Hempel. She had heard that Julie was to be married to a Kansas man named Arnold. Julie herself had not written. The first week week in March passed. He did not come. Nor did he come the following Tuesday or Thursday. After a terrific battle with herself Selina, after school on Thursday, walked past his house, busily, as though bent on an errand. Despised herself for doing it, could not help herself, found a horrible and torturous satisfaction in not looking at the house as she passed it.

She was bewildered, frightened. All that week she had a curious feeling—or succession of feelings. There was the sensation of suffocation followed by that of emptiness—of being hollow—boneless—bloodless. Then, at times, there was a feeling of physical pain; at others a sense of being disembowelled. She was restless, listless, by turns. Period of furious activity followed by days of inertia. It was the spring, Maartje said. Selina hoped she wasn't going to be ill. She had never felt like that before. She wanted to cry. She was irritable to the point of waspishness with the children in the schoolroom.

On Saturday—the fourteenth of March—he walked in at seven. Klaas, Maartje, and Roelf had driven off to a

HONEST ABE

By James E. Hungerford

Abe Lincoln, the splitter,
Of logs—was no "quitter;"
He wielded his axe with a vim!
With strong licks he cleft 'em,
And then he would heft 'em,
And pile 'em in stacks—tall as him;
His future looked dreary—
But did he grow weary,
And start in lamentin' his lot?
I'll say he worked harder,
To fill the home larder—
And that's how he got what he got!

He had naught of knowledge
From high school, or college,
Of Latin or algebra "crooks;"
His log-house library
Held one dictionary;
A Bible—the book of all books;
Nor did he lament 'em,
But thanked God He sent 'em,
And when all the folks were abed,
With noddin' and yawnin',
He'd read 'til the dawnin'—
'Til both of those books had been read!

And so by slow stages,
He pored o'er the pages,
Until he had learned a few facts,
And those early lessons
Proved life's dearest blessin's—
He lived what he learned in his acts!
And out of a cabin,
With weatherboard slabin',
This humble, uncouth resident,
Emerged, and kept soarin';
Great victories scorin'—
Until he became President.

gathering at Low Prairie, leaving Selina with the pigtails and old Jakob. She had promised to make taffy for them, and was in the midst of it when his knock sounded at the kitchen door. All the blood in her body rushed to her head; pounded there hotly. He entered. There slipped down over her a complete armour of calmness, of self-possession; of glib how do you do Mr. DeJong and how are you feeling and won't you sit down and there's no fire in the parlor we'll have to sit here.

He took part in the taffy pulling. Selina wondered if Geertje and Jozina would ever have done squealing. It was half-past eight before she bundled them off to bed with a plate of clipped taffy lozenges between them. She heard the scuffling and scrimmaging about in the rare freedom of their parents' absence.

"Now, children!" she called. "You know what you promised your mother and father."

She heard Geertje's tones mimicking her mincingly, "You know what you promised your mother and father." Then a cascade of smothered giggles.

Pervus had been to town, evidently, for he now took from his coat pocket a bag containing half a dozen bananas —that delicacy of delicacies to the farm palate. She half peeled two and brought them in to the pigtails. They ate them thickly rapturous, and dropped off to sleep immediately, surfeited.

Pervus DeJong and Selina sat at the kitchen table, their books spread out before them on the oilcloth. The sweet heavy scent of the fruit filled the room. Selina brought the parlor lamp into the kitchen, the better to see. It was a nickel-bellied lamp with a yellow glass shade that cast a mellow golden glow.

"You didn't go to the meeting," primly. "Mr. and Mrs. Pool went."

"No. No, I didn't go."

"Why not?"

She saw him swallow. "I got through too late. I went to town, and I got through too late. We're fixing to sow tomato seeds in the hotbeds tomorrow."

Selina opened McBride's Grammar. "Ahem!" a school-teacherly cough. "Now, then, we'll parse this sentence: Blucher arrived on the field of Waterloo just as Wellington was receiving the onslaught of Napoleon. 'Just' may be treated as a modifier of the dependent clause. That is: 'Just' means: at the time at which. Well. Just here modified at the time. And Wellington is the . . ."

This for half an hour. Selina kept her eyes resolutely on the book. His voice went on with the dry business of parsing and its deep resonance struck a response from her as a harp responds when a hand is swept over its strings. Upstairs she could hear old Jakob clumping about in his preparations for bed. Then there was only stillness overhead. Selina kept her eyes resolutely on the book. Yet she saw, as though her eyes rested on them, his large, strong hands. On the backs of them was a fine golden down that deepened at his wrists. Heavier and darked at the wrists. She found herself praying a little for strength—for strength against this horror and wickedness. This sin, this abomination that held her. A terrible, stark, and pitiful prayer, couched in the idiom of the Bible.

"Oh, God, keep my eyes and my thoughts away from him. Away from his hands. Let me keep my eyes and my thoughts away from the golden hairs on his wrists. Let me not think of his wrists. . . . "The owner of the southwest ¼ sells a strip 20 rods wide along the south side of his farm. How much does he receive at $150 per acre?"

He triumphed in this transaction began the struggle with the square root of 576. Square roots agonized him. She washed the slate clean with her little sponge. He was leaning close in his effort to comprehend the fiendish

(Continued on page 167).

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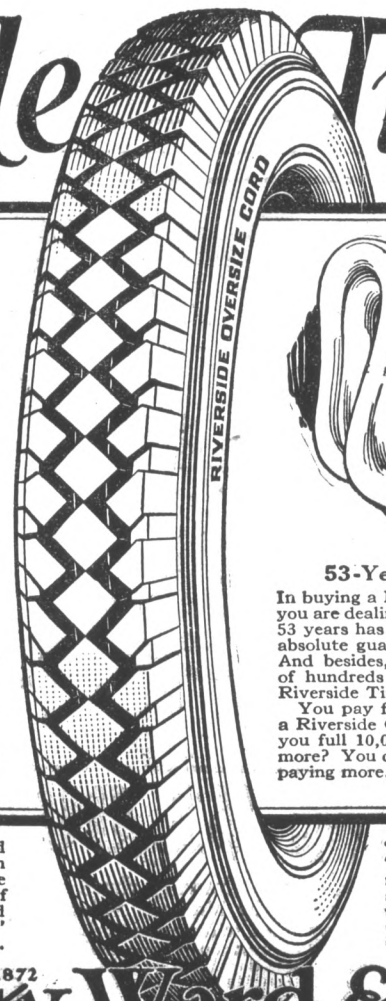

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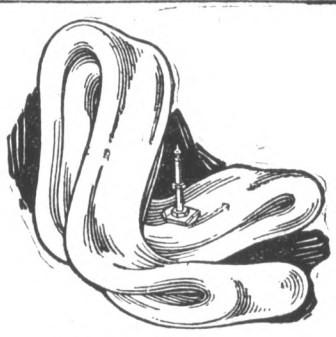

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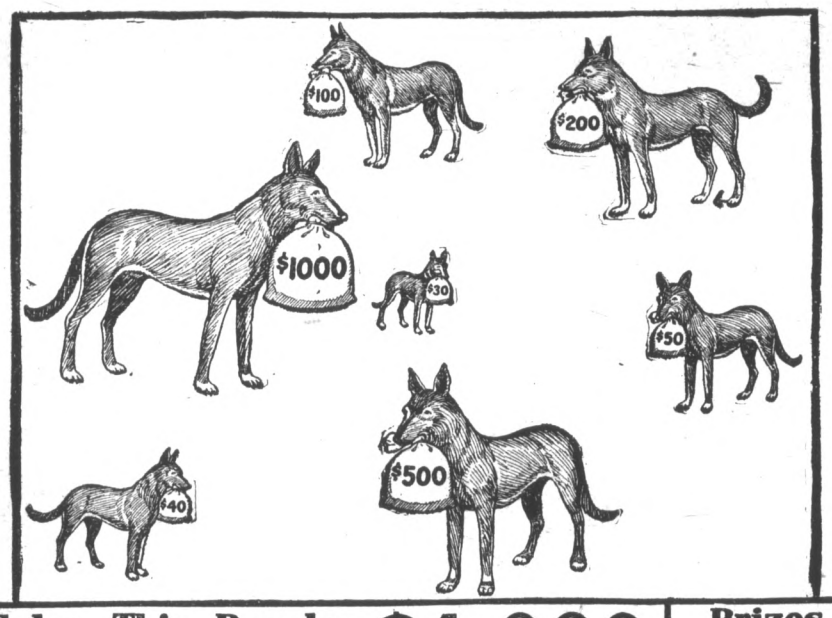

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The Great Prayer

Our Weekly Sermon—By N. A. McCune

A YEAR or two ago a poet was engaged to live at the University of Michigan for one year, for which he was to receive $5,000. He fulfilled his part of the contract and I have no doubt duly received the five thousand. A newspaper referred to it as "the world's softest job." In this I think they were mistaken, but no matter. The poet was expected to diffuse culture throughout the student body by personal contact and informal fireside gatherings, rather than by formal class room instruction. The plan was liked so well that this year an English poet is staying at Ann Arbor for the same purpose. And no doubt the students who take the pains to come into contact with this man will receive a form of direct and personal inspiration that they would never get in any other way.

Now, this is what Christ did with his chosen pupils for three years. It did not look for a long time as though he had made much impression on them. They were wayward and selfish. They did not even catch the main ideas of his teachings. But gradually his influence was made felt. These fishermen and tax collectors became giants in their line of work. At the close of his ministry he offered a prayer that has been recorded and handed down to us, as the seventeenth chapter of John.

WE are happy in possessing this chapter. There is nothing like it anywhere in literature. He is about to leave these men, and at the last He prays for them. The contents of this prayer are so great that a life time of conscientious practice could not exhaust it; could not do more than make a fair beginning.

The most well-known woman preacher living is, I suppose, the Reverend Maude Royden, of England. She published a small book a year or so ago, called "Prayer as a Force." It is a rewarding little volume. She says that the one thing we can all do for our friends—enemies, too—is to pray for them. The trouble with most of us is, that we do not believe that prayer really does any good. They are none the better for it. And yet, mark this. Christ prayed for others. Moreover, Paul prayed for others and begged his friends to pray for him. Unless Christ and Paul were greatly mistaken, intercessory prayer must have some value. It must make a difference. Arguing about it gets nowhere. The practice of it is the only argument that counts. It was John Tyndall, I think, the British scientist, who suggested that the patients in one ward of a hospital should be prayed for, and those in another ward not prayed for, and the results observed. But this will arrive nowhere. God is not to be tested out in that manner. It ought to have some weight with his followers, that Christ prayed for others. Moreover, he urged others to pray for each other and for the world at large.

DID the disciples hear this prayer? They must have. Long afterward, John wrote this chapter. The gospel of John was probably the last book of the New Testament to be written. It was written when the author was a very old man. All that he sets down here has been in his memory for years. The words, phrases, must have made a deep impression on him. He cannot forget them, and the passing years have only served to intensify their meaning to him. If you would get a picture of what is sympathetic and realistic, of the teachings of John the Beloved Apostle, read Browning's "A Death in the Desert."

Of this prayer Philip Melanchthon, Luther's friend and the greatest Greek scholar of his day said, "There is no voice which has ever been heard, either in heaven or in earth, more exalted, more holy, more fruitful, more sublime, than this prayer offered up by the Son of God Himself." The prayer begins by asking that He may be glorified, for He has come to the end of His earthly life. He says that He has manifested God's name to the world. Never has He kept it back. Only He could make such a prayer. Many have the times been when we might have glorified God's name, but we let the opportunity slip.

BUT He also prays for friends. He asks that they may be kept from wrong, and that they may be united as one, through all the coming years. This remembrance of the men who have served Him is one of the beautiful and gripping passages of the New Testament. In the hour when He is to lay aside the burden of His earthly toil and be received into the presence of the Father, He does not forget those who have been faithful to Him. It is a token of what the sincere followers of Him may now expect. It is a reminder also, of what our attitude should be, or when kind fortune suddenly smiles on us. How did we get there? There must be men, women, not far away who have done much toward helping to lift us. To forget such friendships in the hour of victory is not according to the program of Christ.

As the prayer draws to a close He urges the note of unity. "That they may all be one." We need that prayer today. We seem to be making progress toward unity very slowly. And yet we are making headway. The two largest denominations in the country, the Methodist Church, north and south, are planning to come together as one, in the near future, if a few irreconcilables do not prevent this marriage. Thus a division created away back in 1844 over the slave question will be healed. In Canada three leading Protestant churches have come together —Congregationalism, Methodism, and Presbyterianism. That this will have a wholesome effect on the church in the United States in time, may be taken for granted. In local communities the churches work together as never before.

HOWEVER, we should not permit slowness in church union prevent us from throwing our lot in with some church where we live. Church union will never come by the gibes and flings of critics who stand on the side lines. It will be brought about only by sympathetic and earnest friends who work from the inside. Moreover, it is a very cheap sort of excuse to say that when the churches get together we will go in. The man with that attitude might as well stay out. His influence will not count enough to make it worth while for him to join. The church is engaged in big business, the biggest business in the world, and if we believe that we ought to be in it, no matter how shaky and asthmatic the machine may be that we are trying to run. Christ worked in the church as it was in His day, and sought to make it better. And he is our exemplar. The church will be strong only as strong people give themselves to making it so.

SUNDAY SCHOOL LESSON FOR FEBRUARY 8.

SUBJECT—Christ's intercessory prayer. John 17.1 to 26.

GOLDEN TEXT—Holy Father, keep them in Thy name which Thou hast given me, that they may be one, even as we are. John 17.11.

SO BIG.

(Continued from page 165).

little figures that marched so tractably under Selina's masterly pencil.

She took it up, glibly. "The remainded must contain twice the product of the tens by the units plus the square of the units." He blinked. Utterly bewildered. "And," went on Selina blithely, "twice the tens, times the units, plus the square of the units, is the same as the sum of twice the tens, and the units, times the units. Therefore"—with a flourish—"add 4 units to the 40 and multiply the result by 4. Therefore"—in final triumph—"the square root of 576 is 24."

She was breathing rather fast. The fire in the kitchen stove snapped and cracked. "Now, then, suppose you do that for me. We'll wipe it out. There! What must the remainder contain?"

He took it up, slowly, haltingly. The house was terribly still except for the man's voice. "The remainder . . . twice . . . product . . . tens . . . .units . . ." A something in his voice—a note—a timbre. She felt herself swaying queerly, as though the whole house were gently rocking. Little delicious agonizing shivers chased each other, hot and cold, up her arms, down her legs, over her spine. . . . "plus the square of the units is the same as the sum twice the tens . . . twice . . . the tens . . . the tens . . ." His voice stopped.

Selina's eyes leaped from the book to his hands, uncontrollably. Something about them startled her. They were clenched into fists. Her eyes now leaped from those clenched fists to the face of the man beside her. Her head came up, and back. Her wide startled eyes met his. His were a blaze of blinding blue in his tanned face. Some corner of her mind that was still working clearly noted this. Then his hands unclenched. The blue blaze scorched her, enveloped her. Her cheek knew the harsh cool feel of a man's cheek. She sensed the potent, terrifying, pungent odor of close contact—a mixture of tobacco smoke, his hair, freshly laundered linen, an indefinable body smell. It was a mingling that disgusted and attracted her. She was at once repelled and drawn. Then she felt his lips on hers and her own, incredibly, responding eagerly, wholly to that pressure.

(Continued next week).

Doings in Woodland

Bruin Brings Brownie Home

"THERE is only one armful of wood left," said Rolly Rabbit as he came in from the woodshed with wood for the fire to cook dinner.

Bruin sat toasting his big toes by the stove.

"I will go this afternoon for more," said Bruin as he yawned and stretched himself.

So right after the noonday meal Bruin, shouldering his axe and drawing his little wood cart behind him, started off for wood.

He wandered far from the house that he might find the wood that was

Brownie Was Very Small.

easiest to cut. Soon, "Clip, Clip, Clap!" echoed from his axe as he chopped the wood into pieces to fit his little wood cart.

The "Clip, clip, clap!" was so loud that even the little Brown Bear heard it and hurried that way to see who was making this strange noise.

"Who are you?" asked Bruin, surprised as this little visitor appeared from the bushes in front of him.

"Little Brown Bear," was the answer.

"I can see you are a little brown bear but what is your name?" asked Bruin again.

"'Brownie' is all my mother ever called me," answered the little bear with a sad face.

"Where is your mother?" asked Bruin.

"I don't know," sobbed the little Brown Bear.

"Have you lost her?" asked Bruin.

"This morning she was caught in a big ugly trap," said the little Brown Bear. "I was trying to help her get out when we heard a noise. She was so afraid. She told me to hide in the bushes near by and stay there, whatever happened. I did. It was the Hunter Man with a big bang bang gun. I saw him point the bang bang right at my mother. There was a "bang" and she fell. Then the Hunter Man dragged my mother away. I wanted to run after her but I promised her I would stay in the bushes whatever happened. And now I don't know the way home."

"Well, little Brownie, your mother will never come back so you must come home with me," said Bruin.

"You are so kind, sir, thank you," sobbed the little Brown Bear.

The wood forgotten, Bruin started home with his little new friend. Before they had gone far, Brownie became very tired. He had walked so far that day that he just couldn't walk any more. Brownie was so small that Bruin picked him up in his arms and carried him home.

And that was how Brownie came to live with Bruin and Rolly Rabbit.

Dear Aunt Martha:

I go to school every day. I am six years old. I am in the first grade. My teacher's name is Mrs. Eliza Roberts. I like to go to school. I have a pet cat named Taggie.

I will close my letter now.—Your niece, Gessie Neuhouse.

BROTHER'S GOAT.

BY L. M. THORNTON.

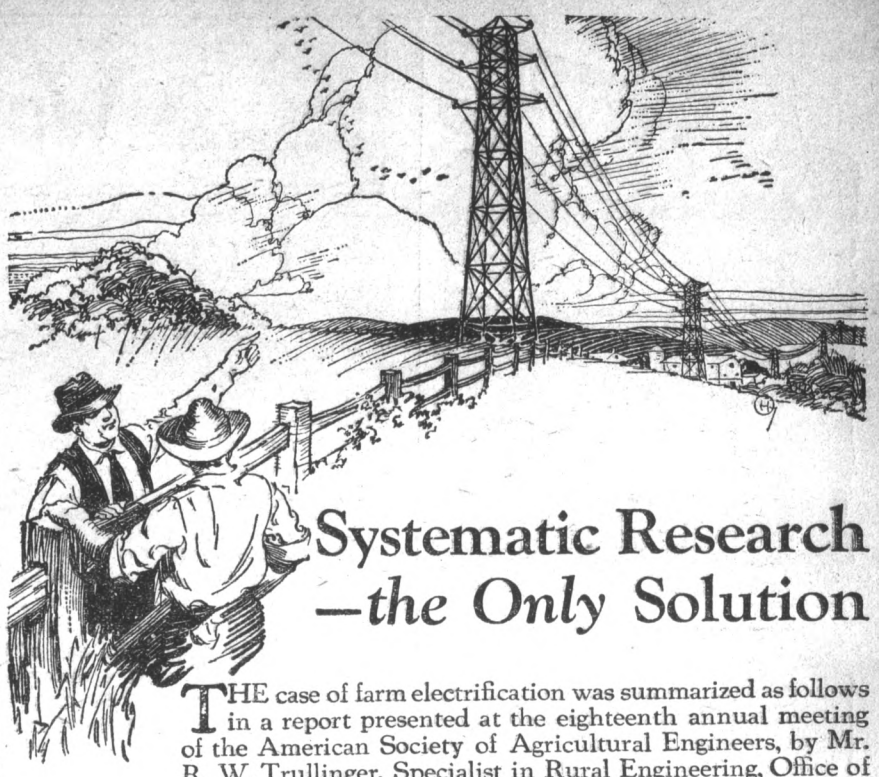
My brother Henry bought a goat,
Of bearded, mild and gentle feature;
But, in her diary, sister wrote;—
I very much mistrust the creature.

I went to see him in his pen,
I bowed, he bowed, and in a minute
Somehow, I went right out again,
And Mother's wash, I landed in it.

Henry could drive that goat around,
My brother is a wild beast trainer,
But it ate everything it found
From Daddy's boots to mother's strainer.

Now, Henry's goat has disappeared,
It knocked the parson's Ford car over,
And Daddy says, he always feared
Tin wasn't meant to eat, for clover.

It has been said that, "Small minds dwell on small things." However, if someone did not look out for the "small" things of life the whole scheme of life would go to smash.



Systematic Research —*the Only* Solution

THE case of farm electrification was summarized as follows in a report presented at the eighteenth annual meeting of the American Society of Agricultural Engineers, by Mr. R. W. Trullinger, Specialist in Rural Engineering, Office of Experiment Stations of the U. S. Department of Agriculture:

"The convenience, safety, ease of control and general flexibility of electrical power are such great arguments in its favor as to justify the most extreme efforts to extend its use generally to agriculture.

"To do this profitably it must be done intelligently. To do it intelligently all the facts regarding the exact requirements of agricultural processes and practices must be known.

"Since it is obvious that these facts are not generally known with reference to the use of electricity as the source of energy, the only solution is to resort to systematic research and investigation following a rational and intelligently prepared program."

The National Committee on the Relation of Electricity to Agriculture has framed a program along these lines calling for experimental research in farm electrification. This work already is under way in thirteen states, each of which has a committee composed of farmers, farm experts, electrical engineers, agricultural engineers and others.

The Committee on the Relation of Electricity to Agriculture is composed of economists and engineers representing the United States Departments of Agriculture, Commerce and the Interior, American Farm Bureau Federation, National Grange, American Society of Agricultural Engineers, Farm Lighting Manufacturing Association, and the National Electric Light Association.

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"Dandelion Butter Color" Gives That Golden June Shade which Brings Top Prices
Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade. "Dandelion Butter Color" is purely vegetable, harmless, and meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless. Large bottles cost only 35 cents at drug or grocery stores. Write for free sample bottle.
Wells & Richardson Co., Burlington Vt.

Woman's Interests

Plan Friendly Get-Togethers

And Develop Community Spirit to Make Life Worth Living

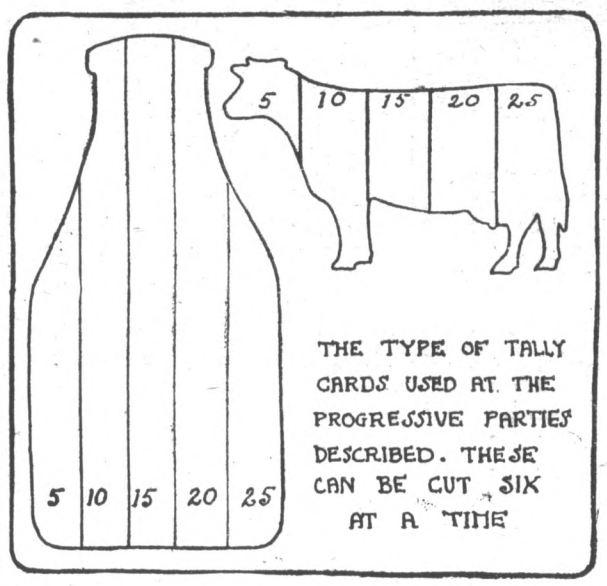
"Late to bed and early to rise
Work like sin and economize."

This is what we used to consider the farmers' national song but lately it seems to run something like this:

The radio keeps us up so late,
There's no time any more
To do our cross word puzzles
So chores are now a bore.

While there is not much truth to either of these rhymes it is a fact that there is very little comparison between the old-time farmer and the one of today. We all know what a difference the radio, telephone, rural delivery, the automobile and good roads have made. We all enjoy these advantages but the fact remains that they have made social get-togethers among farm folk less common.

Social activity of some kind is actually necessary to keep up some people's morale. One of the first things to remember at a social gathering is to simplify the work of the refreshment committee. Nobody is going to remember an event with any particular enthusiasm if they have been worried with setting tables, washing dishes and cooking. Cafeteria style of service is always acceptable. Limit the variety of foods to be served. City folk have learned this lesson before we farm people have. Perhaps they have done so through necessity because foodstuffs were so high, but it seems that most of us strive to serve too great a variety of food. One community I have visited purchased a large number of cheap tin trays at the five-and-ten-cent store. These are used on every possible occasion. As there is a tray that can be filled for each person it simplifies serving considerably.



Country School Affords Opportunity.

If there is a lack of social get-togethers, and no Parent-Teachers' Association in your vicinity, there is an ideal opportunity to combine good times and help out the school. There is scarcely a country school anywhere that is not in need of equipment of some form. And if the patrons of the school will form an association, they can raise small amounts of money in combination with their good times.

A social gathering should not drag. Try to have some definite means of mixing the crowd no matter how large or small—some small stunt that can be carried on while guests are arriving. One way is to supply everybody with ten beans. They are cautioned not to say a certain word—perhaps the word "yes" is chosen. If a person is asked a question and in his answer uses the word "yes" he must give a bean to the other person. At the end of the evening the one who has collected the most beans is given a prize.

A "Mixer" Stunt.

Another stunt is to print on pieces of paper about two by six inches, the names of some animal or object that is seen on the farm. Pin one on the back of each person. Other folk make remarks about what is pinned on the other one's back, but no one knows what is on his back until he guesses it from something that is said. Here is a list of words to use:

Cow, horse, pig, sheep, dog, cat, rat, mule, donkey, calf, heifer, lamb, tractor, goat, plow, churn, colt, cultivator, cornbinder, hayloader, mower, hayrake, milking machine, wagon.

When the word is guessed it may be removed and pinned on in front.

The next thing is to decide on the main source of amusement or occupation. Perhaps it is to be cards, perhaps everyone has come prepared with a riddle or story of some kind. (Of course, this necessitates notification beforehand). Progressive parties are usually successful. For this a number of tables are necessary, although bread boards on stools form good substitutes. Procure a different game for each table. The simple children's games, such as lotto, dominoes, jack straws, parchesi, tiddledy winks, etc., are good. The two winners at each table move up to the next table each time as a signal is given or a bell is rung. Or perhaps each game will count so many points. In this case tally cards of some kind must be used.

Another progressive party method is to procure a number of different games that people of all ages can play. Pinning the tail on the donkey, ringing a pole, throwing bean bags into a basket, carrying beans on a knife, and guessing farm advertisements, are all good examples. Each game should count for a given number of points. For instance, for each bean bag that a person threw into the basket, he might receive five points. These points would be punched on a tally card as illustrated. At the end of the evening, points should be counted and a prize given. Patronize the five-and-ten-cent store for prizes. Spoons, oil cans, shoe polish, etc., make good prizes.

There are numerus ways and means of entertaining. The main thing is to get together and have a good time, for no radio, cross word puzzle or moving picture can give the pleasant human fellowship that these social gatherings give.—Mrs. E. M. Clark.

CANNING PUMPKIN AND MAKING SAUSAGE.

WHEN I want a batch of pies I stew all the pumpkin I can get into one of my large kettles. When it is ready for pies I take enough for a baking, and to the remainder I add sugar, salt and spices. Let it stew a little longer to be sure the sugar is well heated through. Have your cans well sterilized and air-tight. Fill with the hot pumpkin and screw tops on tight. When you wish to use a can all it needs is the eggs and milk. I have canned pumpkin this way for several years and never have any spoil.

This sausage recipe has been used in our family for years.

To five pounds of meat, add three tablespoons of salt, two of sage, one of pepper, two of sugar. Mix well. For summer use I pack it in pans or basins and place in an oven, baking slowly until it is cooked through. When it gets cold, if it is not thoroughly covered with grease, put on enough to cover, and set in a cold place. Mine I keep in the basement. When wanted cut in slices and heat through slowly, always covering the remainder with grease.—Mrs. C. L. T.

> TIME is painted with a lock before, and bald behind, signifying thereby, that we must take time (as we say) by the forelock, for when it is once past there is no recalling it.—Swift.

"THE SMALL HOME."

IF you are considering building a new home or remodeling your old one, "The Small Home" will carry a wealth of suggestions to you. This book discusses many of the problems that face the amateur builder and gives sixty plans and illustrations for modest homes. Blueprints of these are furnished by the author, William Draper Brinckloe. The book is published by Robert M. McBride Co., New York.

CAN MEAT NOW FOR SUMMER USE.

MANY a farm housewife has longed for a supply of fresh meat to give variety to the menu in summer. Fresh meat is expensive to buy in small quantities the year round and many farm homes are situated a considerable distance from the butcher shop.

The discovery of the canning process for meats has solved this problem for the farmer's wife. Now, by killing in the winter when the possibility of spoilage is small, a supply can be canned for summer use to be ready to serve at a moment's notice.

Directions for canning all kinds of meat, and also preserving it by various methods, are given in our bulletin, "How to Preserve Meats at Home." For a copy send five cents in stamps or coin to Martha Cole, Desk M, Michigan Farmer, Detroit, Mich.

ONE NIGHT OUT FIXES THE TEA KETTLE.

HERE is the remedy to get the lime out of a tea kettle with little trouble: Empty the kettle, removing the top. Set outside over night during hard freezing weather. The moisture in the lime will cause it to freeze and become brittle. Thus, early the following morning, it may be taken off the sides in large chunks, depending on how hard it is frozen. This method has been used several times with success by members of the home economics staff of Purdue University, who have found it quite effective.

Do Housework by Radio

By Our Readers

THE rural homes are fast becoming modern in every way, much more so than austere Grandfathers ever dreamed a home could be.

Our whole back yard has been full of music for some time, but until recently, we missed the greatest source of knowledge and entertainment of the age in letting all the wonderful things in the air pass us by unheard.

We heard President Coolidge so often, during the recent political campaign, that we learned and knew his voice, as soon as we heard it.

While sewing, one evening recently, I sat in my comfortable chair and enjoyed a wonderful program given by a noted evangelistic party several states removed from us. Instead of life being a hum-drum, monotonous affair, with no rift in sight except perhaps a few auto trips to town, the meeting of monthly Ladies' Aid Society and The Thimble Club, we are continually looking forward to the speech we want to hear, to the opportunity of "tuning in" on the world famous singers and artists of the type that only those fortunate enough to attend the great opera houses could hear.

If one so arranges her work washing the dishes, churning the butter, sweeping, dusting, mopping or baking can really be executed under the "spell" of a musical radio program.

On Sundays, if unable to attend church, we have a choice of a number of stations broadcasting sermons.

The farmer's wife, along with the rest of the world, has entered into the radio era and I believe the day not far distant when the radio will be considered indispensable.—Mrs. F. K., New Lothrop.

Keeps Young Folks Home.

There should be a radio in every home, where women spend most of their time. I find it a helpful influence in educating and training the children and in keeping them at home nights. To my farmer husband, the weather reports, markets, sports, etc., are a source of both pleasure and profit. I listen in while sewing, mending, preparing meals, ironing, and find it a boon to any of the family who is ill, to speed the dragging hours. I copy the recipes, listen to the talks on style, and interior decorating, go to church, attend grand opera, listen to musical comedies, enjoy popular songs, recitals, lectures, banquet speeches, readings, and all the surprises which the genius of man has brought to us through his skill to harness the invisible and still unknown powers of the air, which the Almighty Creator in the beginning of time, placed there for our use.—Mrs. A. D., Saranac, Mich.

Don't Want To Go Away.

I can think of no greater blessing for the farmer's family than the radio. We live quite a ways from the city but now we get music, lectures, market reports, etc., from any city.

I do not get to go away very often, as I have twin babies four months old to care for, but I do not mind staying at home. I can tune in and get what I like best. I wash dishes, iron, in fact, do most of my work to music, as we have a loud speaker. When the babies are to bed, Friend Husband and I sit there with a big dish of pop corn or candy and listen in. Then, on Sundays, when the roads are blocked so we cannot get to church, we just tune in on church services.

There are no lonesome days for my husband and I any more. Then the neighbors all come to hear it as we have the only radio in this neighborhood.—Mrs. A. L., Dorr, Mich.

Provides Family Entertainment.

We have had a three tube radio for about a year, with a loud speaker, and we certainly enjoy it. Mornings we can tune in and get tonight's dinner, the weather, and the latest news.

In the afternoon and evening all kinds of concerts, speeches, basket and foot ball scores, also prize fights, round for round, market reports, and almost any we would care to hear. Mrs. P. L. M., Tekonsha, Mich.

Shortens Winter Evenings.

The long winter evenings don't seem half so long when you have the radio tuned in. You will be surprised how splendid it is to sit and listen to some nice music, and rest at the same time. The whole family has enjoyed it day and night, since we have had it.

We live twelve and a half miles from our church, so just imagine us sitting in our warm home and listening in on a good sermon in Detroit. I, for one, would not like to be without a radio. —Mrs. F. A. B., Midland, Mich.

Make Winter Washing Easy

THE very generous response to the "Winter Washing Contest" brought a wealth of valuable suggestions on how to make the family washing easier. It is said that no two women do their work alike, and this rumor was well bolstered up by these letters. Every letter told how the housewife did her washing just a little different.

But one of the prize winning letters appears here, the other four will be printed next week. The winners were: Mrs. D. S., Nashville; Mrs. J. D., Sandusky; Mrs. C. N., Bronson, and Mrs. A. C. M., Berrien Springs.

Washing Fluid Helps.

Wash day, any time, is no dread to me. A few years ago I clipped from the Michigan Farmer instructions for making "Snow White Washing Fluid," as follows: Take a large earthenware bowl and empty a ten-cent can of potash into this, also a quart of water. Stir until the potash is all dissolved, then set aside until cool. Dissolve ten cents worth of carbonate of ammonia, half-pound of powdered borax, and one pound of washing soda in two quarts of water. Add to the dissolved potash. Add enough cold water to make five gallons. Strain through muslin. Keep in corked jugs.

I purchased a four-sided grater and slicer at the ten-cent store. Using the fine slicer side it is only a few seconds work to "shave fine" a bar of soap. I use a cupful of the fluid to two-thirds of a boiler of water.

I place the table and bed linen, white lingerie, and all finer white pieces in my machine, then shave one-half bar of any good laundry soap on them. Then pour the boiling water (be sure it is boiling) into which the fluid was put, over them. After running my machine ten minutes, I use a vacuum pounder (which cost me sixty cents) for five minutes. Then I wring and wrinse through three waters, the last one slightly blued.

Towels and heavy underwear go in the machine next and the process is repeated.

The colored clothes are given fresh water, warm but not boiling, and the remainder of the bar of soap and processed the same way. I rub the collars and cuffs of men's shirts and any spots that have not yielded to the machine. Before putting the boiling water on the clothes I remove fruit stains in warm soapy water to which a little kerosene one slightly blued.

I hung a line in my attic, and my clothes are away from all coal dust and soot, and white as anyone could wish. I made some laundry mittens from old white wool underwear, as it is cold to hang up the clothes, even in the attic when the weather is around zero.—Mrs. F. C., Ravenna, Mich.

Cooking heat that goes "straight to the point"

The burners of this Oil Range focus the heat right under the cooking

HEAT from any fire radiates *out*, and much of its strength is lost. But the Florence burners *focus* the heat right under the cooking utensil.

The flame rises clear and intensely hot straight to the point where it will do the most good—the bottom of the pot—instead of escaping into the kitchen. This is the way the best cooking results are obtained.

Control of the heat

To light the Florence Oil Range turn a lever and touch a match to the asbestos kindler—that's all. By turning the lever you can adjust the flame to any degree of heat required.

This flame is a gas flame, produced from kerosene vapor. It is not a wick flame, such as you see in an ordinary oil lamp. The Florence is a very economical stove and there is no smoke or unpleasant odor.

With its blue or gray porcelain enamel and sturdy black frame, any woman would consider the Florence an ornament to her kitchen.

A unique feature of the Florence Oil Range is the Leveler, an ingenious device attached to each leg to adjust the stove to uneven floors. A spirit level on the feed pipe will show you when the stove is level.

Drop into a department, furniture or hardware store, and convince yourself that this is the all-round good stove you have been looking for.

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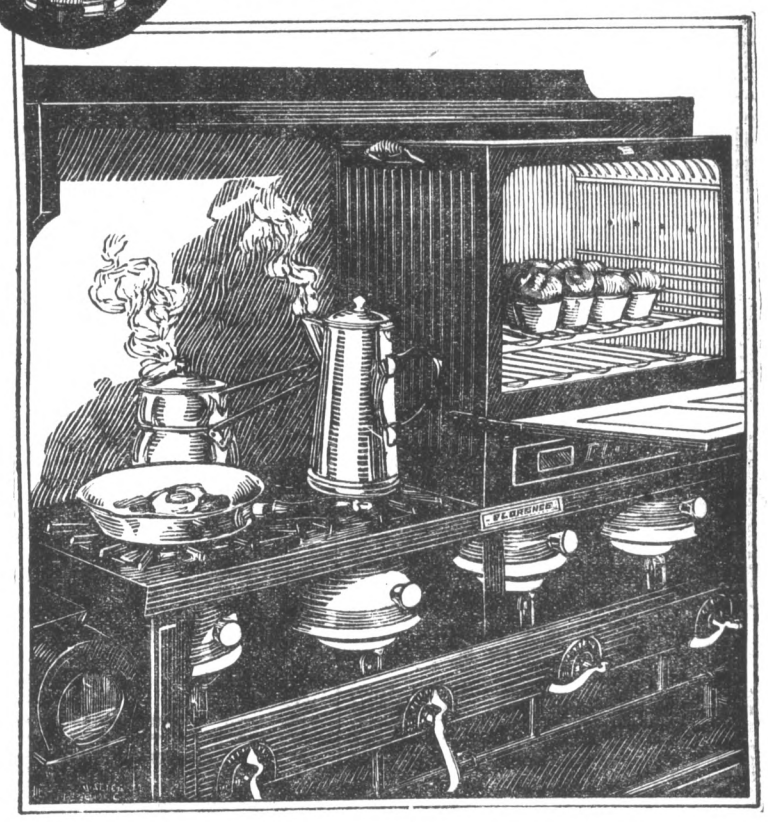
*This cut-away picture shows how the blue flame of the Florence goes straight to the cooking. The heat is **focused** just where you want it.*



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

WHAT IS YOUR EXPERIENCE?

I wonder if any readers of the Michigan Farmer have had experience with, or operated any of the knitting machines so extensively advertised in magazines and newspapers offering profitable home word? Also, can anyone tell me about the carpet and rug weaving looms as profitable home work?—Mrs. M. O. B.

POTATO PANCAKES AND GRAHAM BREAD.

Will you please tell me how to make potato pancakes with either raw or cooked potatoes? Also, how to make graham bread? How much ingredients to use?—Mrs. G. J.

Use two cups of cold mashed potatoes, half cup of flour, two-thirds cup of milk, three eggs, two teaspoonfuls of baking powder, salt and pepper to taste; stir the beaten yolks and milk into the potato, then the flour and baking powder sifted together; beat thoroughly, and lastly, fold in the well-beaten whites; bake on a well-buttered griddle.

Graham Bread.

1 cup milk	½ cup warm water
¾ cup molasses	1 tsp. salt
2 tb. butter	2½ cups graham
1 cake yeast	1½ cups white flour

Melt the butter in the scalded milk. Cool to lukewarm and add the remaining ingredients, the yeast softened in the water. Beat thoroughly and set aside to become light. Turn into a long narrow pan, and when again light bake about an hour in a moderate oven. Do not let the dough become too light after turning into the bread pans.

CANDY RECIPE.

Can you tell me how to make sea foam fudge? Could nuts and fruit be added? Is there any way to make marshmallow candy?—Mrs. J. G.

To make seafoam use:

Brown sugar, 3 cups	Egg whites, 2
Water, ¾ cup	Vanilla, 1 tsp.
Salt, ¼ tsp	

Cook sugar, water and salt together, stirring until the sugar is dissolved. Continue cooking, without stirring, until the syrup forms a hard, but not brittle, ball in cold water.

Remove from the fire and gradually pour it over the egg whites, which have been beaten until stiff during the latter part of the cooking of the syrup. Beat while pouring. Continue beating until the candy will hold its shape when dropped from the spoon. Add vanila. Drop by teaspoonfuls on waxed paper. Nuts may be added just before the candy is dropped.

Marshmallows.

2 cupfuls sugar	1 tsp. vanilla
½ cupful hot water	2 tb. gelatin
½ cupful cold water	

Soak the gelatin in the cold water. Cook sugar and hot water nearly to the soft ball stage. Add gelatin, pour into a large bowl and beat until stiff. Add vanilla, beat thoroughly and pour into a tin. Let stand until stiff. Cut in strips, pull out of tin, cut in squares and roll in equal parts of cornstarch and powdered sugar.

CHLORINE TREATMENT FOR COLDS.

OUR grandfathers knew colds as ailments that came from sitting in a draft, or going without one's rubbers, or taking a long, cold drive in the rain, or some similar indiscretion. Only in recent years has it been agreed that the way you "catch cold" is more likely to be from sitting next to a sneezing, coughing passenger on a crowded street car than sitting by an open window. Once the "germ theory" of colds is accepted, however, the mind of man immediately turns to a study of possible methods of killing the germs and thus ending forever the disastrous annual invasion of "colds."

The germicidal effect of certain gases is so well known that it was natural enough to think of the possibility of inhalations of gas that might render sterile the breathing apparatus, so that the germs would be killed before having a chance to settle down and raise a family.

Two experts of the Army Medical Service reported that inhalations of chlorine gas would keep any cold on earth from getting as far as first base, and President Coolidge himself, after sitting in their gas chamber for an hour, declared they had the right dope. But now comes the New York City Health Department and says, "Nothing doing." Their doctors have tried it out, gave the treatment 671 cases and only 6.5 per cent got any good.

It is my opinion that chlorine gas would be effective against a "cold" if the inhalation was taken in the very first stage of the attack. After heavy discharges of mucous have been excreted, however, the bacilli are well protected and in order to reach them the gas would have to be so strong that it would cause serious injury to the patient.

PASSES URINE FREQUENTLY.

A woman forty-seven years old, 115 pounds, who has not yet passed "the change" is troubled with frequent and profuse urine. No pain, but simply cannot retain the water. Is it just because of change of life, or something more serious?—X. Y. Z.

There is nothing about the menopause that will account satisfactorily for such symptoms, although the condition may be aggravated by it. You should have a thorough examination of urine promptly and thereby save yourself from serious chronic illness.

HAS INFLAMED TONGUE.

What can you tell me about inflammation of the tongue? I have a lot of trouble with it, although I have quit smoking. Shall be very grateful for information.—Subscriber.

Chronic inflammation of the tongue is very hard to cure, in fact, some consider it incurable. Not only should you avoid smoking but also the use of very hot, very cold, or highly spiced food, and all kinds of alcoholic drinks. Decayed teeth should have prompt attention. Alkaline mouth washes, such as bicarbonate of soda, ten grains to the ounce of water, or chlorate of potash, ten grains to the ounce, are helpful. It is very important to have the nose in good order, as breathing through the mouth irritates an inflamed tongue. Never neglect any warts or ulcers on the tongue, as they may quickly degenerate into cancers.

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Save time. Order now or write today for my **Free** book **"Hatching Facts."** It tells everything.—Jim Rohan, Pres.

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ZERO WEATHER BROODING.

(Continued from page 147).

cold and the wire can be rolled up until needed for another brooder stove. I find that a strip of hardware cloth thirty or thirty-six inches wide can be cut into three chick protectors. As they are only needed a few days, they can be moved from one colony house to another as newly hatched chicks come from the incubators.

Chicks need plenty of clean scratching litter. It gives them exercise hunting for scratch grain and absorbs the manure. Bright yellow straw hides the feet of the chicks and reduces the danger from the toe-pecking habit which exists when litter is scarce and their feet are plainly visible. It is the idle chick that learns bad habits.

An ideal floor can be made of fine straw litter over a half-inch of sand. The sand furnishes an abundance of grit of the size the chicks need. It furnishes good material for scratching and absorbs a lot of manure. If sand cannot be obtained, I do not believe garden loam is a good substitute and would rather use the straw over the board floor. The garden soil soon changes to dry dust because of the heat from the brooder stove. A dusty air in the brooder house increases the dangers from colds and eye troubles.

Chicks Need Sunlight.

Success with early hatched chicks depends on giving the chicks conditions as near like the range as possible. Sunlight through glass windows has been proven unsatisfactory by scientists because the violet rays are filtered out. Leg weakness is found less prevalent in houses where chicks obtain the direct sunlight. So have the brooder house windows arranged to swing and give the chicks direct sunlight on the still sunny days.

Chicks with the mother hen are apt to have their feet on the moist ground at least part of the time. Such chicks usually have sturdy legs and the skin on the legs is not dried out by brooder heat. I find it pays to cut moist sods and place them near the deflectors of brooder stoves. The heat soon sprouts a certain amount of green growth. The chicks scratch in the moist soil and it seems to help in preventing leg weakness. When the sods become dry, they can be tossed back in the same spots on the range where they were cut out and fresh earth used in their place.

Cod Liver Oil Prevents Leg Weakness.

Poultrymen have had good luck in preventing leg weakness by feeding cod liver oil. About one per cent in the ration at frequent intervals seems to give satisfaction. It seems best to add this crude cod liver oil to small quantities of the mash at a time so that it can be fed fresh. Experiments seem to indicate that it loses some of its power to prevent rickets if it is exposed to the air for many days. The little chicks do not relish cod liver oil, so it should be mixed carefully with the mash and not fed too liberally.

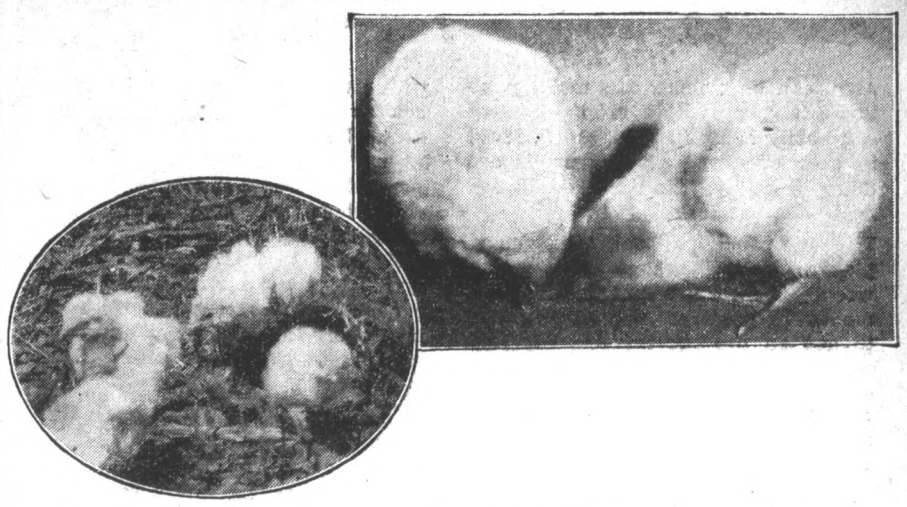
Do not neglect green feed in the winter chick ration as it helps to balance up the more concentrated mash. Sprouted oats are fine for chicks. They also like ground or chopped vegetables or cull apples.

A good growing mash insures every chick the elements for rapid growth. The commercial dried buttermilk mashes give good satisfaction. Some poultrymen in our section use the regular home-made mash for the chicks and have good results. Of course, the oats must be ground into flour and the beef scrap sifted to remove pieces too large for the chicks.

HEAD LICE TROUBLE CHICKS.

Head lice sometimes weakens the chicks, especially hen-hatched chicks, A light smear of lard rubbed on the head of each chick will destroy the head lice. Raise your chicks as much as possible on clean ground and the risk from gape worms and all poultry troubles will be greatly reduced.

It's a shame not to raise 95 out of 100 chicks—*when so many poultry men are doing it*



Just follow these simple feeding rules

INVESTIGATION proves this fact: Today more men and women are making money out of poultry than ever before. Just egg money producers are steadily growing fewer in number. On thousands of farms the money invested in poultry pays more returns than that invested in any other way.

The reason for this change is easy to discover. Wherever you go, poultry raisers are learning the importance of proper feeding. Upon your success in producing a new flock of healthy chicks depends your success as a poultry raiser. Ten years ago on nearly every farm, most anything was good enough for chicks. Today a balanced ration is almost the universal practice. So now 100 make poultry pay where few formerly found it profitable.

DICKINSON'S GLOBE POULTRY FEEDS

Chick Starter
Egg Mash
Growing Mash
Fattening Mash
Molting Mash
Chick Scratch
Growing Scratch
Poultry Scratch

Raise 95 out of 100

Chicks Grow Fast On Right Feed

At this season of the year the production of chicks is receiving most attention. Rapid growth and proper development must be assured. For best results in getting baby chicks beyond the danger point depend on Globe Chick Starter with dried buttermilk. This perfect ration produces astonishing results. Records from leading poultry raisers, where Globe Chick Starter is used exclusively, show an average of 95% of chicks raised on this starting feed. Globe Chick Starter brings them up in the quickest and most economical way.

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Our word alone, we know, is not enough to prove our claims for Globe. Nor is the favorable verdict of almost half a million users of our feeds. A *test* is the surest way to convince you of the merits of the Globe Brand. So a test is all we ask. Just follow the simple rules and then compare results with any other feed you have ever used. The Globe Merchant near you will gladly give you more details on Globe Chick Starter with dried buttermilk. It will pay you to talk with him at the first opportunity. He is a good man to know.

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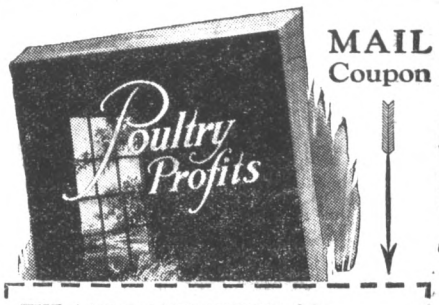

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If you want to succeed with poultry, if you want big profits instead of just pin money—then your poultry raising equipment must be right. You can't make big poultry profits without good incubators and brooders. And wherever you go you will find that the big money-makers are using Buckeye Equipment exclusively. You must have bigger hatches of strong, sturdy chicks. You must be able to raise these chicks to maturity. Buckeye Incubators and Brooders will give you results which cannot be secured by any other incubators and brooders in the world. Every year thousands and thousands of other incubators are thrown in the junk heap to make room for Buckeyes. If you want to profit by the experience of others get rid of the incubators that are losing you money and put in Buckeye equipment.

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Visit those farms where real money is being made from poultry and ask their advice as to the kind of equipment that you ought to have. They will tell you Buckeye. The fastest growing and most profitable hatcheries in America are equipped with Buckeye Incubators. The great agricultural colleges, who have made a careful study of incubators and know the relative merits of all of them, use and recommend Buckeye Equipment. The United States Government in the School for Disabled Veterans uses Buckeye Incubators and Brooders. Go to your county agent or your home demonstration agent. Ask them. They will invariably tell you that Buckeye Equipment is reliable and it is the kind of equipment that will help you to make the most money. Don't try to get Buckeye results with any other kind of equipment.. It simply cannot be done. The money you spend for cheap equipment is wasted money.

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Poultry Economics

(Continued from page 147).

quality of poultry, old or young, shipped to market. An illustration of this point is found in the poultry demonstration farm's summary conducted by the M. A. C. Extension Department. A White Leghorn flock consisting of 301 birds averaged 184.9 eggs per hen and returned a net income, or labor income, of $5.35 per hen. The egg income from each hen averaged $4.62, which leaves a balance of seventy-three cents representing market sales. A White Rock flock, evidently of inferior breeding, and consisting of 167 hens, averaged only 99.5 eggs and returned a labor income of $1.49, of which fifty-two cents represented the egg profits. As would naturally be expected, a higher meat value per hen was realized on the heavier type of fowl, such as the White Rock, but this did not make up the deficiency created by the low flock production.

Barnyard Queen Shows Poor Laying Qualities in Body and Head.

In drawing conclusions from the reports of these two farms, one should not be too hasty in condemning the White Rock as a practical farm fowl, but the importance of a high average production should not be overlooked regardless of the breed maintained.

Our egg-laying contests have corrected many false impressions as to the laying qualities of many breeds, and this riddle had been definitely solved. While the White Leghorn is generally recognized as the most efficient egg machine and the most practical fowl for specialization in market egg production, the so-called general-purpose breeds, including the Rocks, Reds and Wyandottes, frequently capture individual and pen honors. The breed is not nearly as important as the strain, because high and low producers exist in all breeds and production quality is largely a matter of selection for early maturity, vigor, capacity and nervous organization.

The 29,400 hens enlisted in demonstration farm work in Michigan returned a labor income of $2.59 per bird, which is very satisfactory and proves that the poultry flock can be made the most profitable unit in the entire farm organization if properly managed.

Unit efficiency and uniformity of breeding are fundamental to heavy and profitable production.

The accompanying table of two hens having identical care reveals the importance of breeding in relation to seasonal distribution of eggs, intensity of production, and net income.

Barnyard Queen is typical of the great mass of farm hens. In fact, she has laid twelve more eggs than the average Michigan hen. Note how she limits her production to the spring and summer months. Egg Basket Queen, with an official record of 285, represents the highest type of producer. She is a generous type of layer, sticking to the job the full twelve months and revealing unusual efficiency in converting feed into the more concentrated egg product.

Many hens are both structurally and functionally defective and under the best care and management would not return a satisfactory profit. A full appreciation, therefore, of this great variation among individual hens, and a knowledge of what constitutes the highest type of production, efficiency would be a valuable asset to every poultryman.

A hen laying six dozen eggs per year consumes twelve pounds of feed for each dozen eggs laid. This represents the lowest strata of producer that can be quickly culled by systems to be described later.

The mediocre or average hen will produce about twelve dozen eggs per year at the rate of one dozen for every seven pounds of feed consumed. The heavier type of layer is capable of producing eighteen dozen eggs a year, which will average twenty-four ounces, or one and one-half pounds to the dozen on each four pounds of feed consumed. This wide variation in functional efficiency is determined largely by the purpose and methods of breeding adopted.

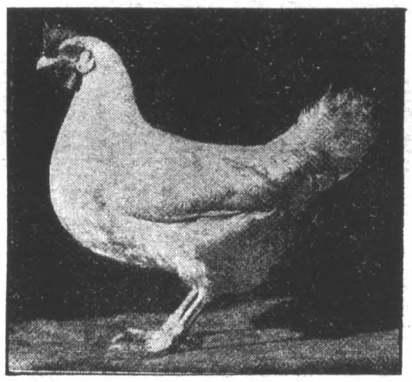
At this point, it might be well to mention that feeding and general methods of management may retard or stimulate production, and proper care is as necessary as careful breeding.

The limitation is, however, controlled by breeding, and now is the time to plan on next year's crop by assembling those late moulting old hens, or early maturing pullets that have laid consistently all winter, and mating them to a strong, sturdy male of known 200 egg breeding. The eggs have got to be bred into the stock before they can be fed out, and breeding represents the first link in the chain of economic production.

POSTMORTEM NECESSARY.

I have a flock of 150 White Wyandotte pullets. The most of them are well. One or two a week get lame and lie over on their side and will not eat. What do you think causes it? They live for a few weeks.—Mrs. J. G.

Perform a postmortem on some of the sick birds that die, and note the condition of the internal organs, especially the liver. If the hens rapidly emaciate and spots are found on the liver, there is danger of tuberculosis. Sometimes losses similar to your description are due to leg weakness or a form of paralysis. This is difficult to cure, but can usually be prevented by providing the hens with a balanced ration which includes dry mash, green feed and plenty of exercise in a house that is not overcrowded.



Egg Basket Queen Shows Good Laying Conformation.

PROBABLY TUBERCULOSIS.

The first trouble with our chickens is lameness, then they dump around and finally die. We find they have sores on their bodies, and even the joints become honey-combed.— H. S.

Lameness, rapid emaciation, bowel trouble and the greyish spots on the liver are symptoms of tuberculosis, although a laboratory examination is considered necessary to definitely determine the presence of the disease. It will be best to have a veterinarian make an inspection and make recommendations. You can also write to the M. A. C. Experiment Station for the bulletin on tuberculosis, by Stafseth.

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PULLETS OFF FEED.

Could you tell me what to do for my pullets? They mope around and seem to have a white diarrhea, but I do not notice the diarrhea until a few days before they die. Several have one eye swollen shut. There is no draft on them when roosting. Am feeding oats and wheat in the morning, cabbage and oyster shells before them nearly all the time, and am feeding dry mash, wheat, corn, oats and meat meal, all ground and mixed, and corn at night. They have plenty of fresh water.—H. F. G.

The bowel trouble might result from eating spoiled feed and frozen vegetables. It is one of the outward signs of disease and postmortems are usually necessary to determine the cause. A crop-bound hen may have bowel trouble. Feel of the crop of a sick bird and see if it is full of a tough mat of litter. This can sometimes be broken up by giving a large dose of castor oil, followed by a gentle kneading of the crop. Crop-bound birds must be treated before they become thoroughly poisoned by the spoiled feed in the crop, and half-starved, due to the clogging of the digestive tract.

The sore eyes are due to colds. Remove the mucous from the eyes and nostrils. Inject commercial disinfectant or potassium permanganate solution into the nostrils with a medicine dropper.

Your feeding method is fairly good. I like dry mash the best when it contains twenty per cent bran, as the bran helps to balance the more concentrated materials and is good to prevent digestive disorders.

CHICKEN POX.

My chickens' heads and necks are covered with a red rash and the feathers come off where the rash is. They don't seem to be sick, and they eat well, but are awful looking things.—A. S.

Probably the hens have chicken pox. Wash the infected area with a mild solution of commercial disinfectant. Touching the sore spots with iodine seems to destroy the infection and healing soon results. Give the flock a dose of powdered sulphur, using a little less than half a teaspoonful per hen. This can be mixed in a little dry mash which can be moistened so the hens will clean it up rapidly. Chicken pox, while an unpleasant disease, does not usually cause serious losses, and the hens will probably soon return to normal if they are well fed and the houses and litter are clean.

TURKEY OFF FEED.

I bought a young turkey some time ago that had been confined in a hen house with hens. He is not well. His eyes and head look bright but he stands around and is not active.—O. M.

Whenever possible turkeys should have a roosting place separate from the chickens. Turkeys are susceptible to many of the diseases of hens. From the symptoms described I cannot suggest a remedy. The turkey may be off feed from eating frozen soft corn or mouldy feed of some kind. Isolate the turkey, give it a dose of castor oil and then try feeding a little soft feed, such as laying mash moistened with sour milk. When a turkey will not eat, medicine is of little value and a lot of cooperation is needed from nature to make a cure.

BUYING BABY TURKEYS.

Could you tell me where I can buy some baby turkeys, and also some information on how to raise them.—I. S.

I do not know a breeder who ships baby turkeys. Because of the value per bird and the risk in shipment, turkey breeders have not yet started to advertise and sell baby turkeys. I would advise you to buy a trio of breeders or a few settings of eggs and place them under hens, such as Plymouth Rocks or Brahmas.

A good first feed for poults is dry bread soaked in milk and squeezed dry. After three or four days they will eat commercial chick feed.

OHIO ACCREDITED CHICKS — QUALITY GUARANTEED — APPROVED BY OHIO POULTRY IMPROVEMENT ASS'N

Where you see the above label you can be sure the chicks come up to the rigid standards set by The Ohio State University. BUY HERE.

Pure-Bred Big Value BABY CHICKS

OHIO ACCREDITED CHICKS are produced by this Hatchery. Every bird comes up to the standards set by the Poultry Department of the Ohio State University, and every breeding bird has been inspected and leg banded by inspectors trained by them.

Healthy Chicks Mean Larger Profits

The health of our flocks is of the very best. We keep our birds in the open on free range under natural conditions and they have the vitality to produce happy, healthy, lively chicks which grow into profitable birds. Our flocks have been carefully culled and bred for years for high egg production.

Special Combination Offers—Write Today for Free Catalog.

Wolf Hatching & Breeding Co. Dept. 10
Gibsonburg, Ohio

Breeds We Offer:
S. C. White Leghorns,
S. C. Brown Leghorns,
S. C. Buff Leghorns,
S. C. Mottled Anconas,
S. C. Blk. Minorcas,
Barred Rocks,
White Rocks,
S. C. R. I. Reds
R. C. R. I. Reds,
White Wyandottes,
S. C. Buff Orpingtons,
S.C. White Orpingtons,
Jersey Black Giants.

The above selection will give what you need, whether you want eggs, meat, or both.. Write us.

ONE MILLION "GOOD LUCK" QUALITY CHICKS
LEADING BREEDS · · LOWEST PRICES!

Good Luck Chicks — REG. U.S. PAT. OFF.

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

ALL LEADING VARIETIES	Price now	25	50	100	300	500	1000
White, Buff, Brown Leghorns, Anconas		$3.75	$7.00	$13.00	$38.00	$60.00	$120.00
Barred and White Rocks, Rhode Island Reds	4.50		8.00	15.00	44.00	72.00	138.00
Black Minorcas, White Wyandottes, White and Buff Orpingtons	4.75		8.50	16.00	47.00	77.00	144.00
Buff and White Minorcas, S. L. Wyandottes, Light Brahmas	6.00		11.50	21.50	60.00	99.00	.....

NEUHAUSER HATCHERIES, BOX 62, NAPOLEON, OHIO

Rupp's CHICKS

STOP! LOOK! BABY CHICKS 100% LIVE DELIVERY

Chicks from healthy pure-bred flocks especially culled for egg production. We have been in business for 13 years. Due to increased demand we have enlarged our plant. 25% down books order.

Varieties. Prices on	50	100	500	1000
Anconas, Wh. & Br. Leghorns	$7.00	$13.00	$62.00	$120
Br. & Wh. Rocks, S. C. & R. C. Reds	8.00	15.00	72.00	140
Black Minorcas	8.00	15.00	72.00	140
Wh. Wyandottes, Buff Rocks	8.50	16.00	75.00	....

Buff Minorcas 20 cents straight. Satisfaction guaranteed. Ref.: First National Bank, Morenci.

MORENCI HATCHERY, S. E. Rupp, Prop., Box G, Morenci, Michigan.

TYRONE POULTRY FARM

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

3000 CHICKS GIVEN AWAY TO OUR CUSTOMERS DURING 1925.

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

TYRONE POULTRY FARM, DEPT. 20, FENTON, MICHIGAN.

AMERICAN CHICK FARM — Zeeland, Michigan — BABY CHICKS

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

From carefully selected, bred-to-lay, high producing strains in the following leading varieties. We have been in the business many years and our experience enables us to produce Chicks for you that will prove entirely satisfactory to you, just as they have proven year after year with our thousands of old customers. S. C. WHITE AND BROWN LEGHORNS, ANCONAS, BLACK MINORCAS, BARRED ROCKS.

We guarantee High Quality and 100% Safe Arrival Postpaid. We also guarantee ONE HUNDRED PER CENT IN GOOD HEALTH.

Catalog giving full particulars and quoting our low prices in detail mailed free on request. AMERICAN CHICK FARM, BOX 115-C, ZEELAND, MICHIGAN.

WINSTROM POULTRY FARMS and HATCHERY

BIG HUSKY CHICKS

Pure-bred, high quality, heavy laying, tested flocks. These pullets will make excellent Winter layers. 100% Live Delivery Guaranteed, Bank Reference.

Varieties. Postpaid prices on	25	50	100	500	1000
S. C. White & Brown Leghorns	$3.75	$7.25	$14.00	$67.50	$130
Barred Rocks, R. I. Reds	4.50	8.50	16.00	77.50	150
Anconas, (Extra Good Sheppard)	4.00	7.75	15.00	72.50	140
Mixed Chicks	2.75	5.50	10.00	50.00	....

Extra Selected Stock, $2.00 per 100 higher. All are hatched in modern machines. Each order carefully packed personally. Free circular.

WINSTROM POULTRY FARM, BOX C-6, ZEELAND, MICH.

YEARS OF EXPERIENCE

Our 15 years of work and experience in breeding and hatching Chicks qualifies us as DEAN in the Poultry Industry College. We own and operate a real Poultry Farm of 20 acres, not merely a Hatchery. Our Free Catalog will give you an excellent idea of this Farm—Get it now. We have specialized in White Leghorns for many years. 100% Live Delivery Guar. Postpaid prices on

	25	50	100	500	1000
S. C. White Leghorns, Extra Quality	$4.00	$7.50	$14.00	$67.50	$130.00
Barred Rocks, Reds, Anconas	4.25	8.00	15.00	72.00	140.00
White & Buff Rocks, White Wyandottes	5.00	9.00	17.00	80.00	155.00

Ref. Royal Oak Savings Bank. Order direct from this ad. in full confidence.

DEAN FARM AND HATCHERY, Box 21, Birmingham, Michigan.

KEYSTONE HATCHERY CHICKS

Hatched from selected, bred-to-lay fowls of leading best strains.

100% Live Arrival Guaranteed. Postpaid prices on	50	100	500	1000
Utility Single Comb White Leghorns	$6.00	$12.00	$57.50	$115.00
Barron S. C. White Leghorns	7.00	14.00	65.00	130.00
Tancred S. C. White Leghorns, R. I. Reds	8.00	16.00	75.00	150.00
Barred & Wh. Rocks, Wh. Wyandottes, Buff Orps.	9.00	17.00	80.00	.....
Extra Selected R. C. and S. C. Reds	9.50	18.00	85.00	.....
Foreman Strain Barred Rocks	10.50	20.00	95.00	.....

Order right from this ad. KEYSTONE HATCHERY, DEPT. 50, LANSING, MICH.

Dundee Chicks

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

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

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

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

DUNDEE HATCHERY, Box A, Dundee, Michigan

RUPP'S INVINCIBLE CHICKS

INVINCIBLE

$10 PER 100 AND UP. From heavy laying, carefully selected, inspected and culled pure-bred flocks.

100% Live Delivery—Postpaid prices on	25	50	100	500	1000
White, Brown and Buff Leghorns, Anconas	$3.75	$7.00	$13.00	$62.00	$120
Barred Rocks, S. C. & R. C. Reds	4.25	8.00	15.00	72.00	140
White Rocks, Black Minorcas	4.50	8.50	16.00	77.00	150
White & Silver Wyandottes, Buff Orpingtons	4.75	9.00	17.00	82.00	160
Mixed Chicks	3.50	6.00	11.00	52.00	100

Buff Minorcas, 50, $11; 100, $20. Ref.: Farmers' and Merchants' Bank. You take no chance in ordering Invincible Chicks. Fine Free Color Plate Catalog.

THE ARCHBOLD HATCHERY, INC. E. E. RUPP, M.G.R. Box 33. ARCHBOLD, OHIO.

What's a CAPON and Why?

A book that explains why Capons are the most profitable part of the poultry business and everything you will ever want to know about Capons. 50 pictures from life that show each step in the operation. List of Capon Dealers' addresses. Tells how to prevent "Slips," where to get the best and cheapest capon tools. Capons are immence eating. Big profits realized. Get wise. This book tells how. Copyrighted new and revised edition. Regular 50c copy, prepaid to your address (a short time only) for a Dime in coin or stamps.

GEORGE BEUOY, R. R. 40, CEDAR VALE, KANSAS

Lusty, Fast-Growing Money Makers

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

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

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

SUPERIOR POULTRY FARMS
Box 200 Zeeland, Mich.

Write Today

PURE BRED CHICKS

250 to 280 Egg Strain pedigreed males head our famous flocks of Tancred American and Tom Barron English White Leghorns, Sheppard's Famous Mottled Anconas, Park's Bred-to-Lay Rocks. Our birds won first prizes in egg production class at Holland and West Michigan State Fairs. All flocks bred through generations for high egg production. Prompt, 100% live delivery, prepaid, anywhere east of the Rockies. Prices low. Order early to get chicks when you want them. Our beautifully illustrated, instructive Free chick booklet will give you much valuable information. Write for your copy now.

Silver Ward Hatchery, Box 29, Zeeland, Mich.

Town Line Poultry Farm — The Personal Service Hatchery

White Leghorns Tancred-Hollywood-Barron strains
Anconas Sheppard Strain, direct
Bar'd Rocks Parks dark colored
Br. Leghorns

5% Discount on orders before Mar. 1, with 25% cash. On all prepaid orders placed 30 days before shipment.

THREE MATINGS
Special Star: White Leghorns, 250-288 males. Anconas, Sheppard males. Extra Selected: All breeds, culled by experts. Selected: Personally culled; very high egg type.

100% Live Delivery Guaranteed. Catalog Free.
TOWN LINE POULTRY FARM
R. R. 1, Box 15, Zeeland, Mich.

OHIO Accredited CHICKS

Seventeen Popular and Rare Breeds, hatched by an Old Established Hatchery under STRICT SUPERVISION as authorized by The Ohio State University. Pedigree Male and Utility Matings. Discriminating buyers should investigate. There is a difference.
Gambier Hatchery, Box G-10, Gambier, Ohio

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

Profits in Baby Chicks

Make big money hatching chicks. Experience unnecessary. Send for booklet "Profits in Baby Chicks." Tells how to get started; how to operate incubator; how to sell chicks and get best prices. By Dr. Crum, leading authority, who has helped hatchery men to success for years. Send 10c in stamps today to Box 500.

10¢

JAMESWAY Fort Atkinson, Wis. Elmira, New York

Some of the M. C. Mail

Several Interesting Things Discussed

Dear Uncle Frank:

I think the boys are mean. One day I was absent from school, and when I returned the next day I asked a boy in my class who sits behind me, what the civics lesson was for that day. He told me the lesson and I studied it. There was a lot of writing to be done and I also did that. When I got to class I quickly discovered I had made a terrible mistake. The teacher asked why I had a poor lesson. I told her I studied the wrong lesson. Well, to make a long story short, I got a calling for not asking what the lesson was. Of course, I didn't want to be a "tattle tale" so I did not tell that the boy had given me the wrong lesson, and I got the calling when I was not in the wrong.

As said boy might see this if it is printed, I'll sign myself, "Against the Boys."

Oh, my! I didn't think you would judge all boys by what one did. And maybe he made an intentional mistake.

Dear Uncle Frank:

I am sending you my words made from the words Work-to-Win. Say, let's discuss—something about cows, bulls, etc., and not bobbed hair. Well, let me make a guess of your age. It is between sixty and seventy.

Well, I must close for I have to go to dinner.—Your nephew, Leo Wuon, Box 25, Republic, Mich.

Do you mean we should discuss the "bulls" we make in this department? Say, do I read and sound like a man seventy years old?

Dear Uncle Frank:

Here goes my third letter and you're always on the job aren't you, W. B.?

Say, we had a discussion in class the other day on, "If a tree fell in the woods and not a person or animal near to hear it, would it make a noise?" I think it would not, because if there was no ear to catch the sound there would be no sound produced. Let's hear some M. C.'s opinion on it.

This letter is long enough so will close for this time.—Your niece, Olive Weaver, Melvin, Mich.

That is quite a question for debate. It seems that the sound or noise vibrations would be produced but no ear would record them. It is just as if a radio sounding station sent a wireless and there were no receiving instruments to receive it.

Dear Uncle Frank:

Yes! I'll say let's talk about something else besides knickers. I know two girls that wear knickers and I don't think you can find any nicer girls than they are. Some other time I will tell about them.

Let us talk about traveling. I just came home from a trip to Sweden with my father and I had a very nice time. On my trip I saw many girls smoke, and I think that is worse than knickers. We left Sweden on the S. S. Saga for England. We traveled through England, and stopped in London a day. Here they took us in a rubber-neck wagon to see the sights of London. We left England on the R. M. S. Majestic, and on the way to New York we stopped in Cherbourg to take on mail and passengers.

On the way from New York I saw the beautiful Niagara Falls. I could tell you a lot more things I saw, but let us hear something about some other M. C. traveler or hiker.—Your M. C. Nephew, Carl Rohl, Jr., Sawyer, Mich.

You certainly must have had a nice trip. It was very nice that you could go. Yes, and I, too, know girls who wear knickers and are very nice. Knickers are very common among the skaters in Detroit.

Dear Uncle Frank:

Girls, listen! Harold is sick in bed! His worry about bobbed hair has made him sick, queer isn't it? But just let him go it about this stuff he has been writing about. I have bobbed hair and use just as much powder and rouge, etc., as any other girl. Does he say anything? I'll say he does, but it doesn't do him any good.

This subject about bobbed hair is getting so old, so I better stop it before I get an angry look from someone.

Well, I guess I had better close my chatter, and let someone else chat for awhile.

From one of your bobbed hair nieces, Birdene L. Coles, Montgomery, Mich.

Yes, you'll probably get an angry look from Harold. I'm sorry that the matter has sickened him.

This is Station W I L L I S Michigan, Route No. 1:

The first number on our program is a letter from Madelyn Staebler to Uncle Frank and Merry Circle cousins.

A Couple of Merry Circlers Out For a Good Time.

Hello, Merry Circle cousins and Uncle Frank.

My! but it's been icy, hasn't it? The first couple of mornings after the ice storm when you went out if you were not pretty careful you would be doing physical culture or physical torture stunts.

I can beat Lester Anderson's record for reading books, about 150 is my record for the year 1924.

The authors of the books I like best are Eleanor Porter, Gene Stratton Porter, Zane Grey, Margaret Widdemer, Carolyn Wells, and Dorothy Canfield. Have any of you read "The Homemaker," by Dorothy Canfield, or "So Big," by Edna Ferber? I would like to recommend them to you.

Well, good-bye for this time.—Madelyn G. Staebler signing off at 10:00 A. M.

Well, you have some reading record, you must have a ferocious appetite for books. There's no excuse for M. C.'s not reading "So Big," because it is running in this paper now. It's good. I recommend it, too.

Bangor High School Fruit Judging Tea m which Won the Judging Contest at the Apple Show at Grand Rapids. Left to Right: Norman Huff, Cecil Hay, Louis Abbott and R. J. Martin, Coach.

Still Another Ambition

Also "A Friendly Criticism"

Dear Uncle Frank:

I have been a silent reader of your page for some time, and have enjoyed it. This week's issue has aroused my ire. As for burning ambitions, why, mine is simply to get married and keep house. Not a very lofty one, is it? But rest assured, friends, it is just as burning as any of yours. That is, I think, all that a girl need ask of Providence.

Someone suggested in a letter that we discuss the Ku Klux Klan, and you said that such a discussion would get us nowhere. If you can think of an argument less sensible than "Bobbed Hair and Knickers," I wish you would tell us about it, and we'll argue about it. Where did that discussion get us? Absolutely nowhere. I think that an argument on the K. K. K. would be much more valuable from an argumentative standpoint.

I suppose you have all pictured me as a dignified prude, with glasses n'everything. But I'm not. I've got bobbed hair (Buster Brown style), and I don't wear glasses. And I'd rather have a good time than eat. But the old questions for discussion seemed so futile. Why not discuss the K. K. K., or "Should the President of the United States be elected by direct vote, or as he now is?" Something with an atom of sense to it!

I am not trying to criticize you, Uncle Frank, nor your method of conducting this department. I am merely offering a friendly criticism to the Merry Circlers, ere they sink into the depths of despair. And if you're just awfully mad at me for this, I won't write any more "articles." If you're not mad, may I write again? Shall I?

I am not going to sign my real name, for someone might annihilate me. I will sign myself by what I am usually called in Our Gang—"Sweetheart."

"Sweetheart," I have cut the heart out of your letter, which was your discussion of the K. K. K. There is one difference between discussing bobbed hair and K. K. K. K. K. K. discussions would arouse serious animosities, while B. H. discussions provide entertainment and amusement. Come again when you can.

Ariel Denton Calls Her Drawing "Little Boy Blew."

A Cross Word Contest

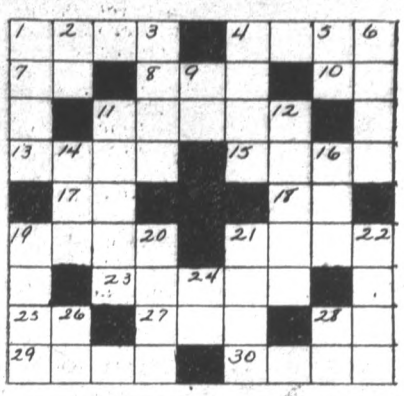
Another Puzzle For Merry Circlers to Solve

Directions.—The numbered squares are starting points for words extending horizontally, vertically or both ways. One letter should be allowed for each square. Words end at first black square or at border of puzzle. Example: The horizontal word starting at number one is four letters long; the vertical word starting at eleven is five letters long.

The list below gives descriptions of words which start at the numbered spaces designated. One list gives the horizontal words and the other the vertical words.

Cross word puzzles are fascinating and educating. As so many people have found them interesting, I am sure the Merry Circlers will also find them so.

The ten usual prizes will be given and Merry Circle buttons and membership cards will be given to all who send in correct answers and are not already members. All correct and neat puzzles will be mixed in a basket and the prize winners picked out. Clip the diagram shown and send it to Uncle Frank, care Michigan Farmer, Detroit,



Name .....

Address .....

Michigan, after you have filled it out. Be sure to put your name and address in the spaces provided. This contest closes February 12.

Horizontal.

1. Hard particles.
4. A suggestion.
7. A public notice.
8. Open (poetical).
10. A conjunction.
11. A fruit.
13. An elongated fish.
15. Support of a building.
17. A note in the diatonic scale (flat).
18. Son of the god Nut.
19. A company of musicians.
21. The first garden.
23. Revolves.
25. A proposition.
27. A boy's name.
28. A preposition.
29. A part of the face.
30. Transgressions.

Vertical.

1. A sport.
2. Rural delivery (abbr.)
3. Parts of the feet.
4. Medicinal plant.
5. Negative.
6. To cut away.
9. Father.
11. To put in the ground for growth.
12. A fertilized ovule.
14. An epoch.
16. Part of the verb "to be."
19. The broken coat of grain.
20. A hill of sand.
21. Conclusions.
22. Seeds of certain trees.
24. In regard.
26. A preposition.
28. One of the articles.

HOW TO BECOME A MERRY CIRCLER.

SEVERAL have written lately wanting to know how they could join the Merry Circle. Some have even sent money with the request that I send them a Merry Circle pin and a membership card. Others have sent in drawings and poems requesting a M. C. membership in return. They must be new readers of our department. For their benefit I will tell again the requirements for membership.

There is only one way in which a boy or girl can become a member, and that is by taking part in some of the contests. If a person sends in a good answer to the contest, even though he does not win a prize, he will get an M. C. card and pin. Any boy or girl between the ages of eight and eighteen are privileged to try these contests, and thus become Merry Circle members.

M. C. Notice.

Because of the rush of office work the Merry Circle memberships for the last cross word puzzle contest, and the recent Read-and-Win contest have not been sent out yet. We hope to have them in the mails in a few days.

WINTER SPORT WINNERS.

THE returns I got from the Sport Contest show that many young folks enjoy the great out-doors during the cold and crisp winter days. I am glad it is so, for there is nothing which stimulates health and vitality as do activities in the sports that winter affords.

All of the papers sent in were interesting and for that reason it was hard to pick the winners. But after careful consideration I finally picked the following:

Fountain Pens.

Jennie A. Kok, R. 3, Zeeland, Mich.
Russell Carter, R. 1, Middleville, Michigan.

Knives.

June Tripp, Kibbie, Mich.
Bernard Alfredson, Whitehall, Mich.
Ellis Cline, R. 2, Richland, Mich.

Candy.

Le Roy MacKellar, Decatur, Mich.
Mary Heath, Mesick, Mich.
Dorothy M. Smith, R. 3, Laingsburg, Mich.
Evelyn Batten, R. 1, Galien, Mich.
Esther Wonser, Mulliken, Mich.

MY FAVORITE WINTER SPORT.

By Jennie A. Kok, Zeeland, Michigan.

Of all the winter sports, I like the old-fashioned one best, that of riding down hill.

There are many different ways of getting to the bottom of the hill. Some like the Indian runner best, because it has great speed. Others like to go skimming or whirling over the crust in a large butter bowl. It is great fun.

I like the community bob-sled. It will hold about ten. If properly guided it will nearly reach the top of the opposite hill, about forty rods from where we start. Then we all race to the top of the hill again, or perhaps we ride from the opposite hill, which is not as long or as steep.

Sometimes we get nicely started, or perhaps nearly to the bottom of the hill when, oh! we go tumbling head foremost into a large drift, or make a rough heap of humanity at the bottom. No one has ever been hurt. We all scramble to reach the crest of the hill first, blaming the guide for the overturned sled.

I like this sport because it creates a friendly spirit in the community. It also is a good, clean sport, and the bracing winter air makes our cheeks rosy, and our bodies strong and healthy.

Come and try a trip down one of these rugged hills of northern Michigan. You will surely want a good supper when you arrive home.

THE GOLDEN CIRCLE.

THE Merry Circler who originally sent in the "Work-to-Win" motto has been given the Golden Circle honor. He is Kenneth Dean, of Ada, Mich.

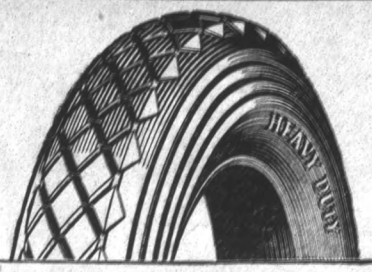
"White Amaranth" has also sent in her name and has received her Golden Circle pin. T. Norman Hurd, of Port Hope, will receive the Golden Circle honor for his letter in the issue of January 24.

I still am waiting for the names and addresses of "A Silent Reader," and "Just Peggy." I would also like to hear from "Halcyone," whose letter appeared in the January 31 issue.

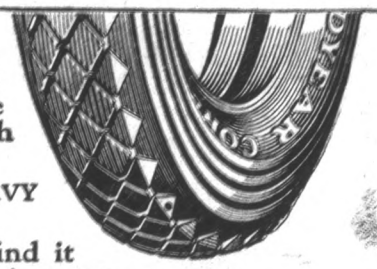
Goodyear HEAVY DUTY Cord Tires are available from Goodyear Dealers in the following sizes:

30 x 3½ (Cl.)	34 x 4½ (S.S.)
32 x 4 (S.S.)	30 x 5 "
33 x 4 "	33 x 5 "
32 x 4½ "	34 x 5 "
35 x 5 (S.S.)	

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



Specially designed for HEAVY DUTY



Here's a new tire—an ideal tire for the man who drives a big heavy car or whose route takes him over rough roads.

It's the new Goodyear HEAVY DUTY Cord Tire.

Examine it, and you'll find it stronger and more massive in every way than the standard tire you are used to. Its powerful athletic body is made of SUPERTWIST, the famous new Goodyear cord fabric, and made extra heavy to withstand the shocks and jolts of hard driving.

Its thick, deep-cut, full All-Weather Tread combines maximum traction with long, slow wear.

Even its sturdy sidewalls are reinforced against rut-wear by stout concentric rubber ribs.

Naturally, this new HEAVY DUTY Goodyear costs a little more than the standard Goodyear tire.

But where extra stamina and strength are needed, it is really the cheapest tire to buy in the end.

The complete Goodyear line contains the tire you want at the price you want to pay

GOODYEAR

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BABY CHICKS From World's Greatest Layers LOW PRICES — Catalog Free

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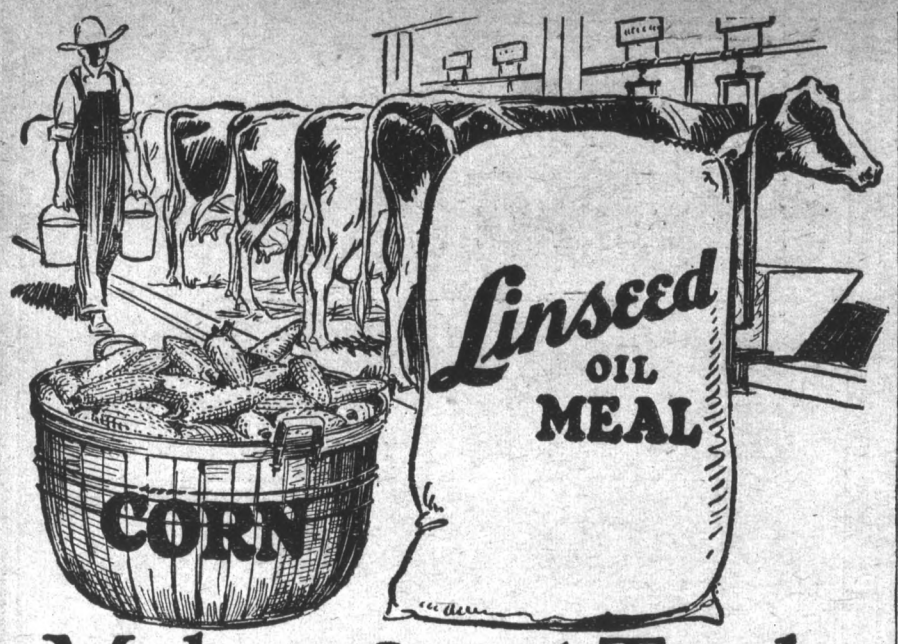

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The Scrub of Scrubs

How He Was Turned to Good Account in One Neighborhood

By C. L. Nash

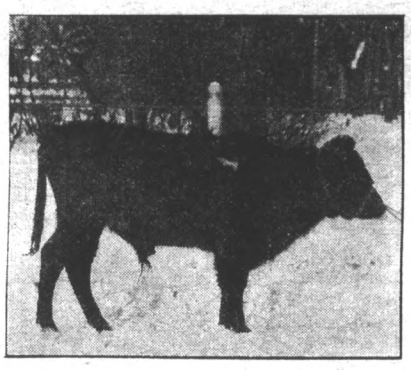
WHEN the Cass County Guernsey Association had its annual meeting in Dowagiac the other day they traded a pure-bred bull for a scrub. The venture proved successful beyond their expectations.

The association had previously announced this intention of trading a pure-bred bull for a scrub brought to their annual meeting. They had no idea that this scrub would be a super-scrub or a sort of elite speciman of its kind. The scrub bull was to be the one brought in by any farmer of the county which, according to the judgment of the Guernsey Fieldman, Mr. H. C. Burrington, would make for the least improvement in a dairy herd.

The animal shown in the first illustration was awarded this distinction, if we may call it that. The picture flatters him. He had qualities for this position way beyond the ability of the photographer to reproduce. Should one attempt to state what his breeding was he would be sure to discredit some breed, so perhaps it is best to call him just a scrub.

The trade was made possible by the cooperation of the Dowagiac Chamber of Commerce, merchants and business men of Dowagiac, who contributed for the purpose of the pure-bred bull. The only rules of the exchange were that those exhibiting scrubs had to have been the owner for at least two months, had to signify their intentions of building up a Guernsey herd and to agree to let the pure-bred animal, should they win him, be used for service at a reasonable charge in their neighborhood.

In all, five bulls competed for the honors. I suppose we would not call this honors, but the consolation prize; however, in this instance it was a prize sought after by five entries, three of which were brought in over fifteen miles to compete for the Guernsey bull, Arbutus King of Elk Park Farm.



The Scrub of Scrubs Brought 3½ Cents Per Pound in Chicago.

Guernsey breeders to the number of over one hundred attended this meeting, there being representatives present from several other counties.

After a forenoon spent in th election of officers, and an afternoon with addresses by Mr. H. C. Burrington, Guernsey Association Fieldman, members of the High School Agriculture Class, and Mr. Jack Pollock, of the Dowagiac Chamber of Commerce, the meeting adjourned to watch a parade of "bulls." The parade proceeded through Main street with a pure-bred leading the five scrubs. It attracted considerable attention, both as a parade and also because it showed that there is still work to be done in the elimination of scrub sires. At the close of the parade the judging was done, there being little question which animal would receive the prize.

Possibly the best part of the story is that, one hour after the judging, the scrub was loaded on a stock train, and reports show that he brought three and one-half cents a pound in Chicago, a total of $15.65 net.

Not secondary in importance is the fact that Mr. Ned Carter, a Porter township farmer who won the pure-bred bull and is thus starting the Guernsey business, comes from a community where a pure-bred Guernsey bull was not yet owned. By the rules of the contract he has signified his intention of starting a Guernsey herd and there is little question but that it will interest others in the community.

These exchanges often times have doubtful value, do not work out as they

Arbutus King of Elk Park Farm Was Exchanged For the Scrub.

ought, but, at least from the standpoint of the publicity of the pure-bred sires in general, and Guernseys in particular, this exchange proved exceptionally valuable. This is only a start. A bull association should be the aftermath and, naturally, the Guernsey Association of the county has, by its own record, favored the promotion of these.

THESE FARMERS ARE PROGRESSIVE.

MEMBERS of the Macomb County Cow Testing Associations grew 422 acres of alfalfa last year. Two members were without alfalfa a year ago. One bought alfalfa hay for sixteen cows and the other bought additional grain with an equivalent feeding value. The grain buyer spent $200 more for feed than did the hay buyer. They ranked third and fourth for milk production in the association. Now each has a good stand of alfalfa.

Fifteen members of the association have electric lights, two acetylene lights and ten use central power. Eight have installed drinking cups in their stables, seventeen have and use milk coolers during the summer, and twenty-two own their own farms.

EXTRAVAGANCE AN ENEMY OF PROFITS.

DAIRY barns could be built of ebony, or some other very expensive woods, but that increased expense would not aid one bit in improving the quantity or the quality of the milk produced therein. In fact, elaborately designed and extravagantly built barns are not necessary for getting the best results. One really feels better when he is fully meeting all the requirements for the sanitary production of good dairy products at the lowest investment consistent with permanency; for then it is possible to get from the exacting business of dairying the largest net profits. On the other hand, it is important that one provide housing that is sufficiently warm and comfortable to conserve feed.—R. F. K.

DAIRY IMPROVEMENT WORK

PURCHASE A DOZEN SIRES IN WEST EATON.

CLARE FIGG, of the West Eaton Cow Testing Association, is the owner of the high cow and high herd in both butter-fat and milk production. Elmer Dobson, the tester, reports that "Pauline," a pure-bred Holstein owned by Mr. Figg, made 15,144 pounds of milk and 496.8 pounds of butter-fat. Figg's herd averaged 407.8 pounds of butter-fat. Vern Barnes had the high cow in the age class under three years old. E. M. Bacon & Son had the high cow in the age class under four years of age. Diller & Miller had the high cow under five years of age class.

The following herds averaged better than 300 pounds of butter-fat production during the association year: Clare Figg, C. V. Baldwin, Vern Barnes, C. Vincent, owning pure-bred and grade Holsteins; E. W. Stevens with eight Shorthorns, and H. D. Burroughs and Roy J. Schott with mixed herds.

Twelve pure-bred sires were purchased during the association year. Twenty-four unprofitable cows were sold for beef, and fifty cows were sold for breeding purposes to outside buyers. Dobson, the tester, is continuing the testing work.

CLINTON-EAGLE GOING ANOTHER YEAR.

THE Clinton-Eagle Cow Testing Association, Victor Ornstrup, tester, has completed its first year's work. Mr. Ornstrup is continuing the testing work for a second year.

John Henning's four-year-old pure-bred Holstein cow made 14,225 pounds of milk and 465.4 pounds of butter-fat. This is the highest milk and butter-fat record in the association. Henning's nine pure-bred Holsteins averaged 11,658 pounds of milk and 430 pounds of butter-fat. This is the high herd in butter-fat production.

Twenty-two cows made better than 400 pounds of butter-fat. Ten herds totaling sixty-nine cows averaged above 300 pounds of butter-fat production. Ornstrup, the tester, reports that 186 soil tests were made with the soiltex method during the association year. Twenty cow testing association members have alfalfa seeded on their farms. The high herd owners are as follows: John Henning, J. J. Maier, James Lowell, George Gall, Herman Bliss, Allen Eaton, Claude Ainslie, George Bateman, King Lee, and Al. Drayton. All of these herds are composed of either pure-bred or grade Holsteins.

THREE ASSOCIATIONS FINISH IN KENT.

THREE cow testing associations in Kent county finished their year's work with December. They were the two groups in the West Kent and the Grand Rapids Association.

In the Alpine group of the West Kent, the average production was 7,694 pounds of milk with a 4.23 test, and 325.5 pounds of fat. The herd of sixteen pure-bred Holsteins owned by John Buth & Son, carried off honors again for the second year. They had honors for high herd in milk and fat, with a milk production record of 14,824 pounds of milk, 3.17 per cent test, and 470.4 pounds of fat. The high cow in fat had 18,300 pounds of mlik and 603.7 pounds of fat. There were eighteen herds producing over 300 pounds of fat. These eighteen herds averaged 8,684 pounds of milk and 355.7 pounds of fat. There were seventy cows having over 365 pounds of fat to their credit. These were located on twenty different farms.

The Sparta group of this association had an average production of 7,891.9 pounds of milk, a 4.12 test, and 325.3 pounds of fat. High herd in fat production went to G. S. Felt, with fifteen grade and pure-bred Holsteins. They averaged 10,642.4 pounds of milk and 387.7 pounds of fat. High herd in milk production went to the herd of grade and pure-bred Holsteins owned by Lynn Bradford. This herd averaging 10,660.3 pounds of milk and 385.2 pounds of butter-fat. High cow in butter-fat was a grade Shorthorn owned by Carl Bradford, producing 12,542 pounds of milk and 593.5 pounds of fat. This cow in four years has produced just a few pounds less than a ton of butter. This association continues with one group. Leo Woodhams is the tester.

The Grand Rapids Cow Testing Association finished its year, December 10. The average production was 8,993 pounds of milk, 3.6 per cent test, and 325.38 pounds of fat. Three hundred cows were on test. The high herd in fat production was owned by Elden Hunsberger. This herd of six pure-bred Holsteins had an average production of 12,677 pounds of milk, a 3.4 test and 434.6 pounds of butter-fat. The high herd in milk production was owned by John Buitendyk with twelve pure-bred Holsteins averaging 12,866 pounds of milk, a 3.08 per cent test, and 396.5 pounds of fat. The high cow in fat production was owned by Robert Patterson. She was a grade Holstein producing 14,055 pounds of milk with a 3.64 per cent test and 511.6 pounds of fat.

There were nineteen herds producing over 200 pounds of fat, and sixty-four cows on twenty farm producing over 365 pounds of fat. Owney Hansen is the tester in this association.—K. K. Vining.

GOGEBIC MAKES DAIRY PROGRESS.

REPORTING on the agricultural advance in Gogebic county—the most westerly county in Michigan—Mr. C. E. Gunderson, county agricultural agent, calls attention to the fact that five years ago there were only seven pure-bred bulls in the county, and about the same number of pure-bred cows, while at present there are seventy-nine pure-bred bulls distributed in every township of the county, and from eighty-five to 100 pure-bred cows, with many additional high-grade cows and pure-bred calves.

Five years ago there were perhaps two or three cows capable of producing 400 pounds of butter-fat in a year, while now there are many 400-pound cows, some 450-pound cows and one 501-pound cow on test last year. There are several heifers now producing forty-five pounds of milk each day. It was not like this five years back. The farmer who used a pure-bred bull five years ago is now reaping his reward. For one thing, he is riding in an automobile and has a good house and barn.

Twenty-seven members of the cow-testing association are now feeding balanced rations, weighing and testing the milk of their cows, using pure-bred bulls, cooperating in the purchase of feed, raising the calves from their best cows or selling them to calf club members. Farmers ought not to let an opportunity slip to purchase calves locally from parents having a high record. Calves from dams with high records are sometimes permitted to go to the beef market when they ought to be kept at home in the county. These calves come from city dairymen who cannot afford to raise them.

Two years ago through a cooperative arrangement with Ironwood business men, a car of pure-bred and high-grade animals were brought into Gogebic county and the results, for the most part, are satisfactory. This is surely affecting the high quality of the dairy herds of the county.—L. A. Chase.

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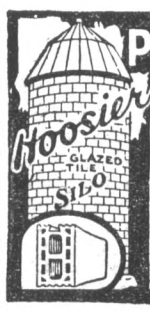

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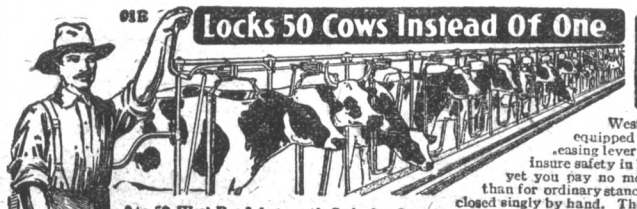

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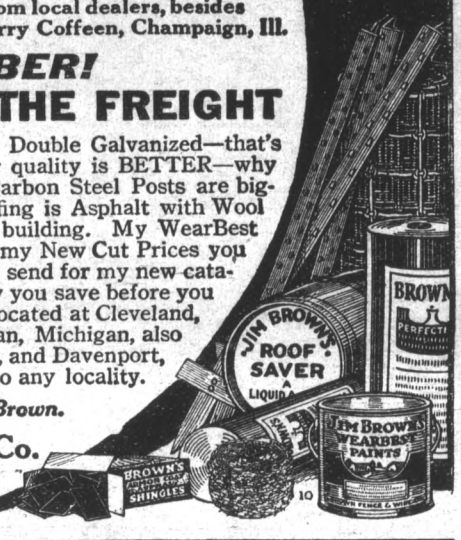

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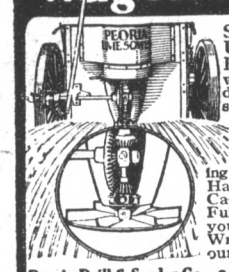

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This Advice Still Good

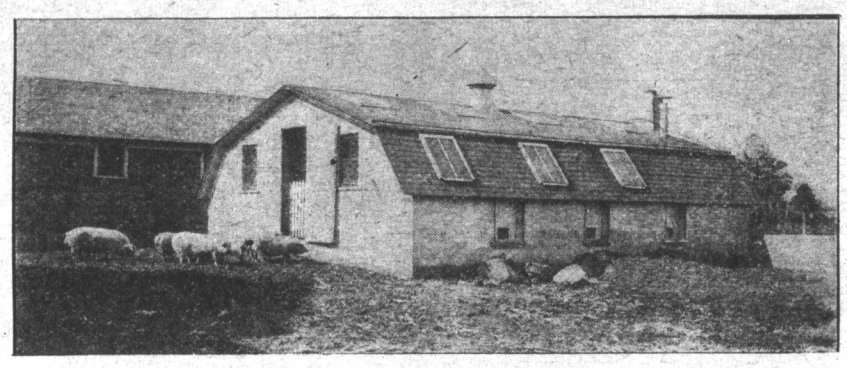
The Ancients Early Learned to Understand the Horse

By P. P. Pope

THERE is hope that good times may again return to the live stock industry; to the general farm; to the breeders of pure-bred animals, and to those who devote their efforts to promoting the welfare of these worth-while things.

We have been exhorted these many months to be patient and persevering, that prosperity was around the corner. But, those who have been dependent upon the farm for a livelihood, are of one accord in thinking that it has been a rather long corner. There is little to indicate, at present, that the turn will be anything but slow, and more or less painful, although we feel sure that some sweet day that corner will be safely and surely turned, and prosperity will be, no longer, only a promise.

We have somehow managed, with the help of the ever faithful "Bob," the foreman, to keep the good herds of pure-bred hogs and cattle intact, and the numerous affairs of Francisco Farm flourishing in the usual manner. The winter's work is very well centered about the big barn with its roomy basement, and Bob is pretty much alone with a barn full of horses and cattle and big hungry hogs.



The Best Hog Houses Are Adequately Supplied With Light.

Personally, we have "gone south for the winter." (The whole of two hundred miles from Francisco Farm, that being as long a ticket as we could pay for), and are enjoying the snow and the ice and the zero weather of damp and foggy Ohio. We climb the silo for exercise and occasionally milk a Jersey cow, or two; but, for the most part, we occillate between the dinner table and the easy chair, and as a consequence we are getting fat and flabby. Buckwheat pancakes and beefsteak, a cellar full of vegetables and fruit, and the best cook in the world to prepare them, doesn't sound bad, does it? We were not born to hibernate, however, and sitting still is hard work—especially as we have never learned to smoke a corncob pipe—so we find ourselves digging around to find something interesting. Yesterday, we were delving into some old Greek translations, and look what we found in one of Xenophon's essays on horsemanship written 2,800 years ago.

"When a horse is shy of any object, and reluctant to approach it, the rider must try to make him feel that there is nothing terrible in it, especially to the horse of spirit; but if he can not succeed, the rider must himself touch that which appears so alarming and lead the horse up gently to it. As to those who force horses forward with blows in such a case they merely inspire the animals with greater terror; for they imagine, when they suffer any pain at such a time, that what they look upon with alarm is in some way the cause of it."

There are many present-day men who know less about horses than this man who lived several hundred years before Christ, and few, indeed, who can tell what they know so well as he. Listen again while he tells us how to put the bridle on, and ponder if you, of this so-called enlightened age, could do it better.

"That the groom may put on the bridle properly, let him first approach the horse on the left side, and then, throwing the reins over the horse's head, let him suffer them to rest on the point of the shoulder; and next let him take the headpiece in his right hand, and apply the bit with his left. If the horse takes the bit into his mouth, the man has nothing to do but to put on the headpiece; but if the horse will not open his mouth, the man must hold the bit to his teeth, and insert the middle finger of his left hand between the horse's bars; for most horses, when this is done, open their mouths. Should the horse, however, not even then receive the bit, let him press the lip against the dog-tooth or tusk, and there are very few horses that, on feeling this, will not admit it."

There is always room in this world for any of us to learn from others, and when we have leisure, whether it has come from deliberate planning or been thrust upon us, there is always an opportunity to use it profitably and in such a way that the profits can never be taken from us. I speak of the storing up of information in the mind through the reading and study of good books, good magazines, or from direct association with others. Profits that may be counted in dollars may come and go, but whether a man's material life may be spent amidst plenty, or in poverty, the things that are stored up in the mind of him are there always to give him comfort and enjoyment.

DO NOT MAKE THE HOGS TOO HEAVY.

I HAVE fattening at Forest Grove Farm twenty-one hogs that will average around 225 pounds. I am going to market these hogs the first week in February, or thereabouts. These hogs were sired by a thoroughbred male on high grade sows of the same breed.

For several years past I have been keeping my hogs until they averaged 300 pounds, but I have come to the conclusion that the market does not want hogs of this heavy weight, so I am going to sell my hogs when they average around 235 pounds.

Two years ago I marketed my hogs when they averaged 310 pounds, and when I got my returns I discovered I did not get within a cent and a half of the top market price. Some years heavy stock is in demand, but taking it year after year I believe the lighter hogs are the ones that top the market.

I have been fattening my hogs this winter principally on corn, ground barley and skim-milk. This is not quite as balanced a ration as I would like to feed, but I have the grain on hand and skim-milk so I am going to market it in this way. I have given these hogs plenty of range, supplied them with charcoal and salt and what bright clover hay they would eat.

It is difficult to tell the best time to market winter fattened hogs, but my experience has been that the February and March markets are very satisfactory. I find it is a good practice to have a few hogs to turn out at different times of the year.—Leo C. R.

Why Folks Use Milk

Various Factors Affect the Consumption of Dairy Products

By J. T. Horner

SINCE milk consumption is of so much importance in the market, dairymen should understand the things which affect the demand for milk, and determine whether there are any of them over which they have any influence.

Sufficient studies have not been made so that all the factors affecting the demand for milk can be definitely stated. However, there are some which are outstanding. Some of the most important are as follows:

1. **Price.**—It is not known just how much influence price has on the quantity of milk used. A comparison of per capita consumption and price in pints in some cities in the United States does not show that the highest consumption is found in those places where price is the lowest, as is indicated by the following table:

City.	Consumption.	Price.
Hartford, Conn.....	1.04	.16
New York City.....	.70	.15
Balitmore, Md.....	.48	.14

The price of milk is not the sole factor affecting the amount of consumption. It is probably not the most important.

2. **The Buying Power of the Consumer.**—The consumer must have the money with which to pay the price or he cannot buy. During times of industrial activity and high wages milk consumption will naturally be higher than during times of depression, provided other things are equal. Milk is a necessity and its consumption does not always decrease when wages fall. Some families buy the same quantities of milk and economize on other things.

3. **Quality of Milk.**—If the milk which comes to market is of good quality, the consumption will be greater. Dirty milk of a low butter-fat content is not "good." Most people eat things because they taste good. A study of the milk market in the city of Boston showed that the most people drink milk because they like it. People like things which "taste good." Cool, sweet milk with a relatively high butter-fat content tastes good.

Health authorities, dairymen and distributors should make every effort to improve the quality of the milk coming into the market. Thus will the health of the community be benefited and the milk business improved. In substance, the following statement was made at the World's Dairy Congress, 1923: "We have fully demonstrated through the educational work of the quality control department of the dairy council that careful production insures satisfied customers and better market conditions for the producer's milk."

4. **Faith in the Equity of the Price.**—We do not buy things freely if we think the price charged is not equitable. Whenever we feel that we are getting full value for money expended we buy more readily. Confidence of the public in the price and quality of milk sold is one of the essential requirements of a stable market and heavy consumption.

The dairyman should be interested in preserving the confidence of the public in all those connected with the milk business. Short-sighted producers often attack the distributors as "profiteers." Sensational newspapers denounce the "milk combine" as a menace to the community. The milk distributor is pictured as an octopus robbing the baby of his daily portion of milk. One distributor attacks another as being unfair. All such things tend to cause the public to think it is being treated unfairly in the matter of milk. Confidence is lost and the consumption of milk decreases.

The agency which distributes milk to the consumer is working for the dairyman just as much as the man who milks the cows. If the business of the distributor is hurt there is a reaction upon the milk producer. The distributor cannot buy milk from the dairyman if he cannot sell it to the consumer. From a selfish standpoint the milk producer cannot afford to have the public lose confidence in the milk distributor. From the standpoint of public welfare anyone, who causes the public to lose confidence in the distributor is a detriment to society, for by such action the public is caused to consume less of an essential product.

Milk producers should take every legitimate action possible to increase the consumption of milk. Such action is good from the standpoint of all concerned. The confidence of the public must be secured and maintained. This confidence can be secured by making the public know that the price of milk is just and that producers and distributors as a class are not unscrupulous.

Whenever a dishonest milk distributor is discovered he should be treated as all dishonest persons deserve. The dishonest individual in any line of business should be punished; but it is detrimental to society that any business fall into disrepute merely because some unscrupulous persons are engaged in it.

The distribution of milk is just as honorable as the production of milk and is just as necessary. It is just as honorable as the publishing of newspapers or selling shoes. The persecution of milk distributors does an injustice not only to this business, but also to the producer of milk as well as the public.

Dairymen should realize that the integrity of the milk distributor is an essential factor to the success of their business. This integrity can be maintained by never attacking any distributor unless he is found to be dishonest. At such times the individual and not the milk distributor, as an agency, should be attacked. Dishonest individuals and unfair dealers should be eliminated by refusal to do business with them; but the milk distributor is an essential economic agency and its integrity should be maintained.

The milk business is of such a nature that it should be considered primarily in its relationship to the public health and welfare of the community; and not merely as a means of making money. If this most essential business is to continue and contribute to the health of the nation it must be remunerative to those persons engaged in it. The costs of production and getting the product to the consumer's door must be met out of the price paid by the consumer. These costs are those of the producer and the distributor. The public's lack of faith in the fairness of either of these will cause a reaction which will be detrimental to all.

The dairyman, the milk distributor, the public official, newspapers and the consumer should all strive to improve the conditions in the milk market and maintain the integrity of the business. Milk consumption depends upon this faith. Public health depends upon milk consumption.

An electrical engineer spoke recently as follows regarding the idea of extending electricity to farms:

"You must show the farmer that electricity is more than a luxury—show him how it will reduce the cost of running his farm. If it can be shown that electricity is a good buy for him, the problem of rural electrification will be in a great degree solved. It may be possible to show the farmer that use of power in his work may make it possible for him to farm his land with one less hand than before. If you can show him economies such as this, we will see a new day in farming."

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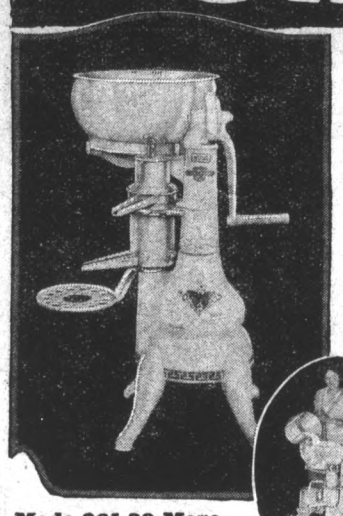

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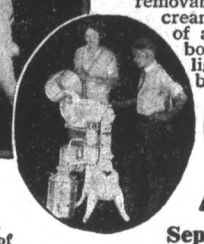
Something new! A big capacity machine in a beautiful *all-white* enameled frame to match the finest kitchen cabinet or range. And it's so easy to clean. Just wipe with damp cloth and keep it always glistening white. Milk and cream taste better from this spotless white Separator. The heavy white enamel is baked on in our high-heat ovens, and lasts a lifetime. The one-piece pressed steel milk tank is waist high, easy to fill, self-draining, and has removable faucet. The bowl casing has open, easily cleaned cream spouts. The "skimmer" is all in one piece, made of aluminum — easiest of all to wash. No discs to bother with. This new "No. 55" is also exceptionally light running. It "spins like a top;" any 12 year old boy or girl can operate it.



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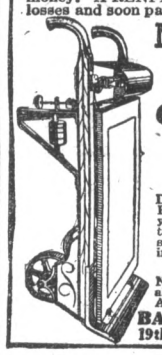

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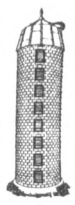

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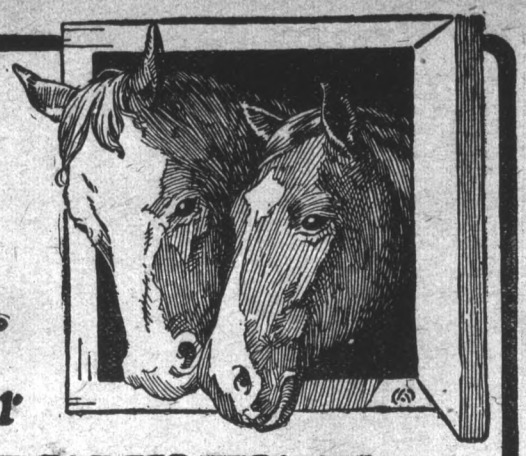

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You cannot afford to wait at every furrow end on trembly, panting horses. Remember, the season doesn't wait on you; and it's the early oats that's oats, the early corn that's corn.

Condition your workers right now with a course of

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It will give their systems a spring house-cleaning—loosens up the bowels, tones up the liver and kidneys, enriches the blood, drives out the worms. Will help them shed their winter's coat. Then you have a team that can go down one side of the field and up the other without a stop.

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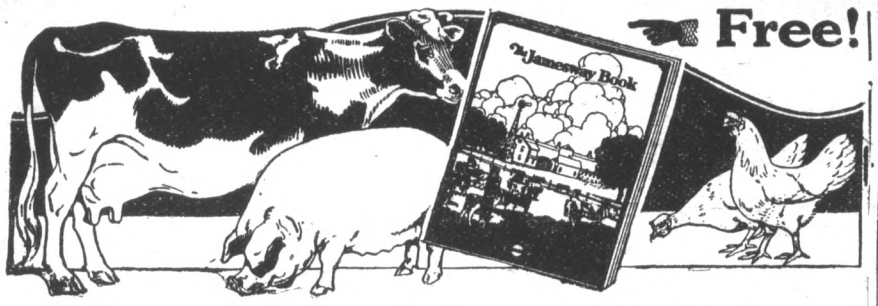

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HANDLING EARLY LAMBS.

ADEQUATE preparation should beforehand be made for handling the early lambs, as they are very sensitive and readily succumb to adverse conditions. Lambs dropped during the severe winter weather are out of season, and to insure success natural conditions must be provided. Early lambs are profitable, but demand attentive care.

The stable should be warm, light and dry. My experience has been that there is nothing quite equal to a basement stable with a wall on the west and north side and having a south exposure. A wall of either stone or concrete completely shuts out the sharp cutting winds from the north and west and aids in keeping the stable at a more uniform temperature. If a wall is not available a double matched siding with an air space between is second best.

Half the battle of successful management of early lambs depends upon having a place where it is warm and where a uniform temperature can be maintained. The stable should be well ventilated, yet, at the same time, free from drafts and never so cold as to chill the lambs. Water should never freeze in a stable where early lambs are being raised until the lambs are at least six weeks old.

Much of the trouble encountered in handling early lambs may be obviated by giving the ewes extra care so that the lambs will come strong and full of vitality. Weak puny early lambs are a discouraging proposition, and especially in cold weather. I have found that by feeding the ewes well they drop healthy, robust lambs, come to their milk readily and cause but little trouble at lambing.—Leo C. Reynolds.

HOG POPULATION SHRINKS.

HOG production in 1925 will be below normal, with an acute shortage of hog products in 1926. This is indicated by the recent pig survey made by the department of agriculture. There was a decrease of 28.2 per cent in the number of sows farrowing in the fall of 1924 throughout the country from the number farrowing in the fall of 1923, but the decrease in pigs is only 22.2 per cent. For the corn belt the decrease in sows farrowed was 30.6 per cent, and in pigs saved 23.4 per cent. Based upon the results of previous surveys, the present survey indicates a reduction of from fifteen to twenty-five per cent in sows that will farrow in the corn belt in the coming spring, from the spring of 1924.

The total number of pigs raised in the corn belt in 1924 was about nineteen per cent less than in 1923, representing a reduction from 1923 of between 11,000,000 and 12,000,000 head.

These figures indicate that the trend of prices of hogs and pork products will take an upward turn before long, and that those farmers who have kept their brood sows will be able to regain the losses due to the past period of large production and low prices.

WORLD SHEEP PRODUCTION.

AN analysis of the production of sheep in various countries indicates that the trend over a long period of years is downward in most countries. In all countries the number varies from year to year and fluctuates with changes in prices and other conditions that affect the industry generally. The total sheep population of the United States, Australia, New Zealand, and the United Kingdom in 1904 was 142,922,000 head. In 1914 it was 176,342,000 head, and in 1924 it stood at 157,355,000 head.

Large accumulations of wool, with consequent decline in prices shortly after the war, caused many countries to reduce their flocks, particularly in Australia, New Zealand, and Argentina. As the war accumulations of wool were absorbed by the trade, prices gradually rose, until today they are at record heights.

A noted British authority on wool estimates that the world consumption of wool during 1924 would amount to approximately 2,840,000,000 lbs. The world supply for 1924, according to estimates made by the United States Department of Commerce and the National Association of Wool Manufacturers, amounted to only 2,660,000,000 pounds. The principal producing countries, therefore, are now concentrating on increased production.

"You cant expect me to show a Profit when my udder is sore"

Chapped or sore teats—or any discomfort o the udder—makes the cow nervous and causes a "holding up" of the milk. Milk that you ought to have in the pail fails to come.

It pays to keep the udder and teats comfortable—soft, silky, pliable. **Bag Balm**, the great healing ointment ought to be used at the first sign of chaps, cuts, bruises, inflammation or Caked Bag. A wonder-worker in any congested condition of the delicate tissues.

Keep a package on hand. Big 10-ounce can, 60c, at feed dealers, general stores or druggists. Order direct if dealer is not supplied.

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We are banking on such sires as these for production in our future herds.
Echo Sylvia King Model, a grandson of May Echo Sylvia from a 36-lb. daughter of a twice 37-lb. cow.
Grahamholm Colantha Lad, whose sire has 2 daughters with World's records, one with 1,400 lbs. butter, and 34,000 lbs. milk in a year, and one with 1,200 lbs. butter and 32,000 lbs. milk in 305 days.
Marathon Bess Burke 32D, son of "Fobes 6th." His seven nearest dams average 1,108 lbs. butter and 24,096 lbs. milk in a year.
Bell Farm King Sylvia, a grandson of May Echo Sylvia out of "White Susie" the famous show cow with 1,113 lbs. butter and 28,000 lbs. milk in 365 days.
Send for our list of bulls from high producing dams.
Bureau of Animal Industry
LANSING Dept. C MICHIGAN

$1000 BUYS ten nice Holstein Heifers from one month to one year old, all sired by our 33.58-lb. Bull; young Bulls all sold. E. A. ROHLFS, R. F. D. 3, Akron, Mich.

FOR SALE 5-yr-old Reg. Holstein T. B. tested Bull. Dam's record 31.20 lbs. Butter, 604 lbs. Milk. Sire's dam 904 lbs. Butter in 346 days. Sure and gentle to handle. Price $250. M. A. SAMS, Coleman, Mich.

SPECIAL BARGAIN On two registered richly bred Holstein heifer calves and one Bull calf not a-kin, also Bulls ready for service from dams with good yearly records and sired by 30-lb. Bull. Price away down. B. B. REAVEY, Akron, Mich.

FOR SALE 4 Registered Holstein Cows, Fresh. D. E. DEAN, Milford, Mich.

Financial King Jerseys Our bulls of serviceable age are all sold, but we have a few bull calves of excellent breeding, sired by our great herd sire, Financial King Sensation. Our prices are reasonable. COLDWATER JERSEY FARM, Coldwater, Mich.

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

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.

Spasm of Larynx.—What is the trouble with my three-month-old pigs, which are seemingly in good health, but when they commence to eat they are suddenly affected by spasms. However, after struggling a few minutes they get over it, commence to eat, and act as if nothing had happened. R. H., Brighton, Mich.—The cold food causes spasm of the throat, or else the animal fills the mouth too full, causing choking. Warm their feed, make it more sloppy and spread it out thin.

Chronic Cough—Heaves.—I have a twelve-year-old horse that has been coughing some for the past three months, and he also has mild case of heaves. I feed mixed hay, a few oats, and the glands of the throat are enlarged. R. T. C., Columbiaville, Mich.—Feed timothy or straw, no clover hay. Grain and roots is the best winter feed, grain and grass best summer feed; also apply equal parts of tincture of iodine and camphorated oil to enlarged glands daily, and give him a half-ounce of Fowler's solution at a dose two or three times a day.

Abscess.—My cow first went lame, an abscess formed on hip, which opened, then it soon healed. Now she is seemingly stiff in joints of leg. She is due to freshen in February, and does not seem to be sick. E. B., Millersburg, Mich.—Apply camphorated oil to stiff joints twice a day, give her two drams of acetate of potash in feed or in drinking water twice a day.

Eczema.—Have cow which will soon freshen, the skin on hind quarters itches, causing her to scratch. A. N., Anchorville, Mich.—After washing the parts with soap and water, apply one part oxide of zinc and five parts vaseline daily. It will not be necessary to wash her often, but keep her clean. Brushing twice a day might prevent itching.

Unprofitable Dairy Cow.—I have a cow six years old that gives a good flow of milk, but after being with calf for five months she drys. What can be done for her? She has never been sick a day. Mrs. B. C. McC., Leslie, Mich.—Good care and proper feeding is the best remedy for a case of this kind, but it is a mistake to keep an unprofitable dairy cow.

Ringworm—Cow Ate Afterbirth.—Do you consider iodine and lard as good a remedy for ringworm as iodine? A neighbor of mine has a cow that ate her afterbirth and she appears to be in good health. I have been told it might poison a cow. E. T., Silverwood, Mich.—No, apply tincture of iodine. It depends upon the cow's power of resistance whether it will do her harm to eat the afterbirth. We all know that it is a mistake to allow her to eat it. The writer has known many valuable cows to die from the effect of eating the placenta.

Sore Teat.—The end of my cow's teat is sore, which makes milking difficult.—F. R. M., Fenville, Mich.—Touch sore with carbolic acid lightly daily, use a milking tube.

Valuable Book Free
Let us send you "Minerals for Farm Animals." Write for copy.
U-Cop-Co Special Steam Bone Mineral Meal is a complete mineral feed, without useless drugs or filler. Made under open formula.

U-COP-CO SPECIAL STEAM BONE MINERAL MEAL FOR CATTLE

Sold direct at bargain prices:
500 lbs. $15.00
½ ton... 27.50
Ton..... 50.00
[Agents Wanted]
F. O. B. Factory
United Chemical & Organic Products Co.
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SAVE YOUR MAPLE TREES
Earn money by making maple syrup. Great demand for quality product.
CHAMPION EVAPORATOR
Produces finest quality. Saves time, fuel and labor. Pays for itself in a couple of seasons—lasts for many years.
Sap Spouts, Tanks, Full Line of Sugar Maker's Supplies.

ORDER EARLY
Write for free ill. catalog and mention how many trees you tap
Champion Evaporator Co., Hudson, Ohio.

Jerseys For Sale Bulls ready for service, also a few females. All from R. of M. dams. Accredited herd. Smith & Parker, R. D. No. 4, Howell, Mich.

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

Milking Shorthorn Bulls
ready for service. Best Clay breeding. Herd tested. IRVIN DOAN & SONS, Croswell, Mich.

FAIRFIELD Shorthorns—now offering a few choice young bulls ready for service. Priced right. H. B. Peters & Son, Elsie, Mich.

SHORTHORN BULLS
reds and roans. W. E. Morrish, R. 5, Flint, Mich.

Shorthorns Best of quality and breeding. Bulls, cows and heifers for sale. BIDWELL STOCK FARM, Box D, Tecumseh, Mich.

Red Polled Cattle bulls, cows and heifers. Large Yorkshire Swine. DON P. CARR, Homer, Mich.

Shorthorns For Sale
both sexes. Barr & Curtiss, South Bay City, Mich.

HOGS

DUROC JERSEY SWINE for sale. Type and quality our aim. Write your wants. W. E. BARTLEY, Alma, Mich.

Duroc Sows and Gilts
Choice sows and gilts bred to Michigan's Grand Champion Boar for March and April farrow. Also a few swine boars. LAKEFIELD FARM, Clarkston, Mich.

O.I.C's last spring pigs, either sex, not akin, from big strong stock, recorded free. OTTO B. SCHULZE & SONS, Nashville, Mich.

O. I. C's Registered and shipped on approval. Bred gilts, tried sows, service boars, and pigs at Farmers' prices. Earle R. Morrish, Morrish Crossing on D. U. R. Atherton Road, Route 6, Flint, Mich.

O. I. C's Fall pigs, Sired by "Giant Boy" and "Jumbo's Bell Boy." Brown Swiss Bulls. Milo H. Peterson, R. 2, Ionia, Mich.

Chester Whites Gilts bred to son of Lengthy Prince, Iowa grand champion, also fall and summer pigs. C. O. D. ALBERT DORR, Clinton, Mich.

REAL Big Type Chester Whites with quality. Big husky fall pigs, either sex. Also bred sows. Lucian Hill, Tekonsha, Mich.

Francisco Farm Poland Chinas
Now offering some wonderful bred gilts, granddaughters of National Grand Champion—at prices you can pay. P. P. POPE, Mt. Pleasant, Mich.

Hampshires Spring Boars for sale. Place your order for Gilts Bred to order. 11th year. John W. Snyder, R. 4, St. Johns, Mich.

Big Type Poland Chinas
Choice gilts bred for Mar. & April farrow, for sale. WESLEY HILE, Ionia, Mich.

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

For Sale Large Type Poland Chinas either sex. Also Brown Swiss Bulls. A. A. FELDKAMP, Manchester, Mich.

SHEEP

20 Registered Shropshire ewes 1-5 yrs. old, bred for Mar. and April, to ram of exceptional quality. Also 20 ewe lambs. Flock established 1890. C. LEMEN & SONS, Dexter, Mich.

Breeding Ewes for sale, extra good young Delaines. V. B. FURNISS, Nashville, Mich.

HORSES

Stallion for Sale or Exchange Registered Belgian Stallion with a lot of fine get, sure breeder, easily handled, for sale or will exchange for anything useful on farm. Box 405, South Bend, Ind.

POULTRY

White Leghorns Exclusively
Pure Tancred Cockerels from 225-299-egg dams head our high grade Royal Breeders. This means high flock average and poultry profits. 75% of the chicks we sell go to old customers. 100% live arrival and good condition guaranteed. All orders have my personal attention. Write for catalog.
ROYAL HATCHERY AND FARMS,
S. P. Wiersma, Zeeland, Mich., R. R. 2.

EGG BRED ROYAL HATCHERY & FARM ZEELAND, MICH.

LOOK!
150,000 chix 9c up. From highest-producing contest-layers. Free circular. Hatching eggs. 10 chix free with early orders. Lawrence Hatchery, R. 7, Grand Rapids, Mich.

Egg Bred Barred Rocks Chicks and hatching eggs reasonably priced. Our free catalog describes them and is full of money making poultry information. Send for it. Gilt Edge Barred Rock Farm, Gobles, Mich.

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

You Can Own Flocks Good as Lakeview's—Buy Lakeview Chicks
The records of our pure Tancred White Leghorns range from 231 to 279. Seven high record generations in pedigree. Compare these figures with those of the egg laying contests.

JUDGE FOR YOURSELF
The winning pen at the International contest averaged 202. All the Leghorns averaged 176. The entire contest average was 163. In the Barred Rock division the Lakeview pen was second, though one hen died. The nine averaged 194. Read Our Catalog.
LAKEVIEW POULTRY FARM
R. R. 8, Box 6, Holland, Mich.

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

Highland Leghorns
Bred To Lay
S. C. White Leghorns. We breed this strain exclusively. Tancred and Hollywood sired. Chicks with pep. Early maturing. Best winter layers. Send for free illustrated catalog, and prices. Bargains today.
HIGHLAND POULTRY FARM,
Holland, Mich., R. 9, Box C.

Baby Chicks
Are you going to put MACOMB CHICKS under your brooders this season, or "just chicks." Investigate MACOMB quality. Michigan hatched, from guaranteed pure stock. Send for catalog. Early order discount. 100% live delivery.
MACOMB POULTRY FARM & HATCHERY,
Box 173, Halfway, Michigan.

C-H-I-C-K-S
Exhibition and utility strains from America's best. Healthy, expert culled, properly mated. Leghorns, R. C. Reds, W. and B. Rocks, trapnested W. Wyandottes, Anconas. Free chicks with advance orders. Guaranteed. Catalog.
HAIGHT HATCHERY, Box 277, Cedar Springs, Mich.

SEND NO MONEY for SILVER LAKE CHICKS
Just mail your order, we ship C. O. D. and guarantee prepaid 100% live delivery of sturdy, purebred chicks from healthy, bred-to-lay flocks. Wh. Br. Buff Leghorns, 13c; Bd. Rocks, S. C. Reds, 14c; Wh. Rocks, 14c; Buff Rocks, Buff Orps., Wh. Wyand., 16c; Mixed, 10c. Literature Free.
Silver Lake Egg Farm, Box M, Silver Lake, Ind.

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

BABY CHICKS and DUCKLINGS
Rhode Island Reds and Barred Rocks. Utility bred. Also extra select quality Reds and M. A. C. strain Barred Rocks. From stock carefully selected for health and egg production. White Pekin Ducklings. Write for circular and price list. Goret's Poultry Farm & Hatchery, Corunna, Mich.

BARRED ROCK CHICKS
From sturdy, healthy, free range flocks. Carefully mated for high egg production. Blood tested for white diarrhea. Write for prices. Reference, Farmers' & Merchants' Bank.
KRUEPER POULTRY FARM, Milan, Mich.

WHITTAKER'S TRAPNESTED REDS
Both Combs. Michigan's Greatest Color and Egg Strain. Chicks and Eggs from Vigorous, Hardy Stock. Our 16th Annual Catalog is yours for the asking. Write for it.
INTERLAKES FARM, Box 39, Lawrence, Mich.

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

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

Early Maturing BABY CHICKS
From Pure Bred, Blood Tested Stock
All of our breeding stock has been tested for Bacillary White Diarrhea, and Culled for Egg Type and Standard Requirements. This should greatly aid in the control of White Diarrhea Troubles. Write for prices on our B. P. Rocks, R. I. Reds, White Wyandottes, W. P. Rocks, and S. C. W. Leghorns.
MILAN HATCHERY, Box 4 Milan, Mich.

A MILKING SHORTHORN BULL
will increase and retain both the milking and fleshing qualities of your farm herd, whether it needs more beef, more milk, or both more beef and more milk. The old time Durham, good for both milk and beef. Hardy, fitting into general farm conditions, profitable consumers of farm roughage, producing rich milk—the world's champion butterfat producer is a Milking Shorthorn. Tell us how much you can pay for a bull and we'll send you the address of a near-by breeder who can fit you out.
MILKING SHORTHORN SOCIETY, Box 400, Independence, Iowa

THE LATEST MARKET REPORTS

GRAIN QUOTATIONS

Tuesday, February 3.

Wheat.

Detroit.—No. 1 red $2.14; No. 2 red $2.13; No. 2 white $2.13; No. 2 mixed $2.13.

Chicago.—July at $1.67⅝@1.68; September $1.53½; May $1.97⅞@1.98.

Toledo.—Wheat $2.09½@2.10½.

Corn.

Detroit.—No. 3 yellow $1.30; No. 4 yellow $1.25; No. 5 yellow $1.20.

Chicago.—July $1.37⅝@1.37¾; September $1.37½@1.37⅝; May $1.36@1.36½.

Oats.

Detroit.—No. 2 white 63½c; No. 3 white 62½c.

Chicago.—July 64⅛c; September at 60¾c; May 68@68¼c.

Rye.

Detroit.—Cash No. 2, $1.67.

Chicago.—July $1.61½; September $1.29½; May $1.77.

Toledo.—$1.60.

Beans.

Detroit.—Immediate and prompt shipment $6.30 per cwt.

Chicago.—Navy, choice at $5.50@6; red kidneys $10.35@10.50.

New York.—Choice pea at $7@7.25; red kidneys $10@10.50.

Barley.

Detroit.—Malting $1.01; feeding 95c.

Buckwheat.

Detroit.—$2.30@2.32.

Seeds.

Detroit.—Prime red clover cash at $19.60; alsike $13.60; timothy $3.20.

Hay.

Detroit.—No. 1 timothy at $17@18; standard and light mixed at $16@17; No. 2 timothy at $15@16; No. 1 clover and No. 1 clover mixed $15@16; wheat and oat straw $11@11.50; rye straw $12.50@13.

Feeds.

Detroit.—Bran at $36@37; standard middlings at $40; fine middlings $44; cracked corn $56; coarse cornmeal at $52; chop $41.

Apples.

Chicago prices on apples: Northern Spies $7@7.25 bbl; Baldwins $6@6.50; Jonathans $9@9.25 bbl; Kings $6.50@7; Greenings $7@7.25 bbl; Wageners $5.25@5.50 bbl; Grimes $5.50@5.75; Starks $6; Ben Davis $5@5.50.

WHEAT

A feature of the advance in wheat has been the foreign demand from several countries, including those which normally are in the exporting list. France, Italy, United Kingdom, Bulgaria, Roumania, Hungary, Russia and Egypt all have been reported as buyers of wheat and flour during the last week. Altogether, large purchases of cash grain were made by importing countries in the world's market. The urgency of this buying seems to be over for the time being, however, But clearances in the week ending January 24 were the smallest since last July and total exports for January will probably not exceed 15,000,000 bushels.

RYE

In spite of reports of fairly large sales of rye nearly every day in the last month, actual clearances have been relatively small. Importing countries have reduced their weekly takings decidedly, as compared with what they were when rye was 50@75c cheaper. Stocks, while large, are in strong hands.

CORN

Speculative attention turned to corn, after leading operators came to the conclusion that wheat was on unsafe ground. The movement to terimnals is falling off slightly. Feeders are buying little, and both industries and elevators are unwilling to take the low grades, except at much greater discounts than a week ago, although a little improvement in the demand from these quarters has been noticeable in the last day or two.

FEEDS

Prices for all by-product feeds are weak, reflecting the decreased demand from feeders and dairymen. Concessions of 50c per ton and more are being made to stimulate demand for mill feeds in transit. Canadian and Buffalo mills are quoting bran about $2 lower than western mills. Both linseed and cottonseed meal prices are the lowest in several weeks. Sixty per cent feeding tankage at various markets is quoted around $65 a ton.

Chicago.—Bran $32.50; standard middlings $36; flour middlings $40; cottonseed meal, 43 per cent, $45; hominy feed $48; gluten feed $40; old process oil meal $47; tankage, 60 per cent, $65 per ton in 100-lb. sacks.

OATS

Oats are still accumulating at terminal markets. The visbile supply of 74,000,000 bushels is more than four times as large as a year ago. Primary receipts have increased about 25 per cent in the last two weeks, and are considerably heavier than usual at this season. Demand from consuming districts continues slow, although cereal interests have bought more vigorously in the last day or two. Canadian oats at the seaboard are said to be nearly all cleaned up, so that foreign buyers may soon begin to take American grain.

SEEDS

The seed trade is rather slow, as the cold and stormy weather tends to make buyers indifferent. Prices show only small changes. Foreign clover and alfalfa seed is being offered more freely. It is reported that France has about 10,000,000 pounds of red clover seed available for export and that about 5,000,000 pounds have been bought in Europe to come to this country. The movement of soy-beans out of growers' hands is slow in the corn belt, but the eastern states have sold a larger fraction of the crop than a year ago.

BEANS

After advancing early last week, bean prices declined and closed slightly lower than a week previous. C. H. P. Whites are quoted at $6.50 per 100 pounds, f. o. b. Michigan. Demand is only fair, as buyers are uncertain as to the permanency of prices, and are not providing for distant needs. Deliveries are rather light, in spite of the advance of prices since the first of the year, and some of them are being stored for producers who are looking for considerably higher prices later on. They are anticipating a market that will pay $6.50@7 to them at the elevator. Speculative activity has been a factor in the upturn recently, as the Pacific Coast interests have been operating and the high prices for grains tend to influence sentiment as to bean values. If prices advance much above the present level, purchases of foreign beans will probably begin, as prices in Japan are on a much lower bassi. In spite of imports, however, it would be possible for the domestic market to go somewhat higher than at present. The market for Pinto beans is rather quiet, with quotations around $6.95@7, f. o. b. Colorado.

HAY

Prices for both timothy and alfalfa hay are slightly lower, with liberal receipts and only a fair demand. Great pressure is required to move the low grades. Timothy prices are about $5 lower than at this time a year ago, while alfalfa is in about the same position as last year. Dairymen and feeders have been fairly active buyers.

POULTRY AND EGGS

Fresh egg prices are behaving in an irregular fashion, dictated largely by receipts from day to day. An increase of four cents a dozen at Chicago brought prices up half way from the decline a week ago, but they have settled back again. Increased arrivals of fresh eggs are to be expected from now on, so that the lower prices may not hold. Receipts, although increasing, are still below seasonal volume, however, and prices will continue at a good margin over the corresponding period last year.

Chicago.—Eggs, checks at 42@43c; fresh firsts 49½@50c; ordinary firsts 46@47c. Live poultry, hens 24@28c; springers 28c; roosters 18½c; ducks 0@32c; geese 22@23c; turkeys 25c.

Detroit.—Eggs, fresh candled and graded 52@53c; storage 44@46c. Live poultry, heavy springers 28c; light do., 27@28c; heavy hens 28@30c; light do., 27@28c; roosters 16@17c; geese 20c; ducks 30c; turkeys 20@35c.

BUTTER

After holding at an unchanged level for several days, butter prices advanced two cents a pound. Receipts, while smaller than for the week preceding, were more than 11 per cent larger than in the first week in January. While bottom has probably been reached in the effort to find a level at which values are more stabilized, there is little chance of prices scoring any decided advances.

Prices on 92-score creamery were: Chicago 39½c; New York 39c. In Detroit fresh creamery in tubs sells for 41½c; Philadelphia 41c.

COMING LIVE STOCK SALES.

Holsteins.

March 5—Musolff Bros., South Lyons, Mich.

Notice of Adjourned Annual Meeting

TO AMEND CHARTER

The adjourned annual meeting of the Citizens' Mutual Automobile Insurance Company of Howell, Michigan, was held on February 6, 1925, at one o'clock P. M., and adjourned until February 20, 1925, at one o'clock P. M., at its home office for the purpose of amending Section 14 of the charter of said company or striking out said section, in which case the balance of the sections to be renumbered. Said Section 14 now reads as follows:

Section 14.—All assessments levied by the Board of Directors of this Company shall be a lien upon the property insured in the nature of a chattel mortgage, and in case said assessment shall remain due and unpaid for a period of sixty days, then and from thenceforth it shall and may be lawful for the said insurance Company, through its authorized agent or attorney, to enter upon premises of the party or parties insured, and on any place or places where said property and chattels may be and take possession thereof and be authorized to sell at public auction, after giving ten days' notice of the sale by posting up written notices thereof in three public places in the City or Township where the property is found, and to retain out of the proceeds the amount of the assessment and reasonable expenses, the overplus or residue, if any, to belong to and to be returned to the party insured.

WILLIAM E. ROBB, Secretary,
Citizens' Mutual Auto Ins. Co.
of Howell, Michigan.

Live Stock Market Service

Tuesday, February 3.

CHICAGO

Hogs.

Receipts today were 41,000. Market is steadily strong ot 15c higher. Hogs 250 to 280-lb. average $10.60@10.85; early tops $10.85@10.90; bids on better weighty butchers of 170 to 220 lbs. average $10.35@10.60; most 140 to 160-lb. kind $10@10.35; bulk strong weight slaughter pigs $9.25@9.75; few packing sows $10@10.20.

Cattle.

Receipts were 4,000. Fed steers and she stock steady to strong 25c higher; unlimited fresh steers and desirable light heifers, killing quality yearlings, odd lots at $12.50, carload $13; few are conditioned; heavy offerings of fresh steers $8.25@9.50; vealers uneven, higher quality offering upward to $16.50; bulk to packers $11@13.50; few at $14.

Sheep and Lambs.

Receipts were 17,000. Market slow; few early sales of fat lambs to outsiders at $18.75@19; early packers' market low. Mostly 25c lower. Early bulk $18.25@18.50, some fully 50c lower. Fat sheep and feeding lambs steady. Fat ewes mostly $9.50@10; feeding lambs $17.50@18.

DETROIT

Cattle.

Receipts 350. Market closing slow at 25c lower; all others steady.

Good to choice yearlings dry-fed	$ 9.25@10.00
Best heavy steers, dry-fed	7.75@ 9.00
Handyweight butchers	7.00
Mixed steers and heifers	5.50@ 7.50
Handy light butchers	5.50@ 6.50
Light butchers	4.50@ 5.50
Best cows	5.00@ 5.75
Butcher cows	3.50@ 4.25
Cutters	6.00@ 6.50
Canners	2.25@ 2.75
Choice bulls	4.50@ 6.00
Heavy bologna bulls	4.75@ 5.50
Stock bulls	3.25@ 4.25
Feeders	5.00@ 6.50
Stockers	4.50@ 6.00
Milkers	$45.00@70.00

Veal Calves.

Receipts 614. Market steady.

Best	$16.00@16.50
Others	6.00@15.00

Sheep and Lambs.

Receipts 1,636. Market steady.

Best lambs	$18.25@18.50
Fair to good sheep	7.55@ 7.75
Light to common	8.75@13.75
Fair to good sheep	7.75@ 7.60
Culls and common	4.00@ 5.50
Buck lambs	7.75@ 9.00

Hogs.

Receipts 1,788. Market is lower to steady on everything but roughs, which are 15c higher.

Mixed hogs, heavy y'rkrs.	$ 11.50
Pigs	10.00
Yorkers	10.75@10.90
Little yorkers	10.50
Roughs	9.55
Stags	5.50@ 6.00

BUFFALO

Hogs.

Receipts 5,510. Market is closing steady. Heavy sold at $11.40@11.50; medium $11.25@11.40; light at $11@11.25; light lights $10.25@10.75; pigs at $9.50@10.25; packing sows and roughs $10.

Cattle.

Receipts were 200. The market is steady. Steers 1,100 lbs. up, at $7@10.25; steers 1,100 lbs. down $6@9.50; heifers $5@7.25; cows $2.50@6; bulls $3.50@5.50.

Sheep and Lambs.

Receipts 1,000. Best lambs sold at $18.75; culls $16.50 down; yearlings at $15@16.50; wethers $12@13; ewes at $10.

Calves.

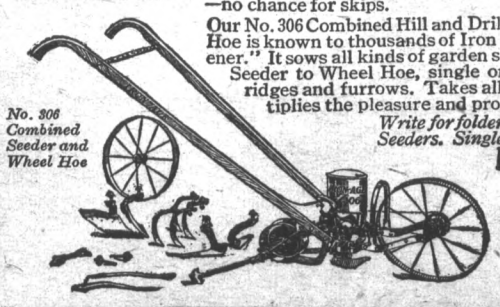
Receipts 2,350. Top at $17.

Reduce Your Labor — Increase Your Profits

IRON AGE Drills and Wheel Hoes include special and combined tools to suit every grower's need. Iron Age Seed Drills sow so accurately that thinning is unnecessary, if you have confidence in your seed. The operator can always watch the dropping seeds —no chance for skips.

Our No. 306 Combined Hill and Drill Seeder, Single and Double Wheel Hoe is known to thousands of Iron Age users as "The Complete Gardener." It sows all kinds of garden seeds; can be quickly changed from Seeder to Wheel Hoe, single or double wheel style. Cultivates, ridges and furrows. Takes all drudgery out of gardening; multiplies the pleasure and profit.

Write for folder describing Hill and Drill Seeders. Single and Double Wheel Hoes.



No. 306 Combined Seeder and Wheel Hoe

Fred. H. Bateman Company
633 So. Washington Square
Philadelphia, Pa.

IRON AGE

Ever since the birth of the Industry

From the first days of the gasoline buggy to the present day automobile MonaMotor Oils and Greases have been leaders in the lubrication field. Thirty-five years making motors run smoother and last longer!

You buy thirty-five years of quality and reliability in each quart of MonaMotor Oil.

Monarch Manufacturing Co.
Council Bluffs, Iowa Toledo, Ohio

MonaMotor Oils & Greases

KEEP Gombault's Caustic Balsam in your barn—ready for emergencies. For 41 years a reliable and effective remedy for Spavin, Capped Hock, Curb, Splint, Laryngitis, Thoroughpin, Quittor, Wind Galls, Poll Evil, Sprains, Fistula, Grease, Barb Wire Cuts, Calk Wounds.

Treat these things with Gombault's Caustic Balsam. Directions with every bottle. Won't scar or discolor hair. $1.50 per bottle at drug stores, or direct on receipt of price. The Lawrence-Williams Co., Cleveland, Ohio.

GOOD FOR HUMANS, TOO

GOMBAULT'S Caustic BALSAM

Save the Udder

if there be caking, congestion or inflammation of your cows' udders

Use Anticake

This takes the cake out of the bag.

Udder disease is a dairyman's constant worry. Because a temporary affliction means immediate loss; a permanent disability may mean loss of the whole animal. Protect your investment and save the udder by providing in your barn ANTICAKE, the Wondrous healing ointment. The minute you notice the least soreness in the Udder, apply ANTICAKE and be safe. CURES MANY CASES OF CHRONIC UDDER TROUBLES. Wise dairymen always use it continually before freshening, particularly with heifers having first calf. SOLD ON POSITIVE GUARANTEE—if it shouldn't help there is no charge. One pound box $1, three boxes $2.90, five boxes $4.50. All prepaid. Dairy Specialty Co., Box F, Elyria, Ohio.

SHODDY MANUFACTURERS SEEK PROTECTION.

THE Merritt misbranding act of 1925, which has been reported out of the House Interstate and Foreign Commerce Committee, legalizes the use of the term "all wool" when applied to fabrics composed of wool shoddy. Its other provisions relating to the branding of fabrics are meaningless and there is some question as to whether they may do the wool grower more harm than good.

It is the opinion of E. B. Reid, of the American Farm Bureau Federation, that in reporting out this bill the committee has set out to kill the Capper-French truth-in-fabrics bill. As it is a general branding bill, it will act as a red flag signal for all manufacturers to fight the proposal, thereby increasing the opposition to the truth in fabrics principle. The farm bureau has persistently favored a real branding bill, but this proposal does not reach the truth in fabric situation, for as long as shoddy is used it can be labeled and sold as "all wool."

Notwithstanding the objectionable provisions, the Merritt bill is the first attempt that has been made in congress to regulate false and misleading advertising. Confiscation of the commodity is the penalty for misbranding.

Unhealthy Skin.—Several of my cattle are troubled with a white scab on the skin. H. F., Goodharlive, Mich.—Apply one part salicylic acid and twenty parts petroleum to sore parts three times a week. Grooming will help them.

Dressed Veal and Hogs

We are an exclusive meat house and are equipped to handle to your advantage veal and hog shipments.

Guaranteeing best results and prompt returns.

Ship direct to

M. A. Nicholson & Co.

WHOLESALE MEATS

2460 Riopelle, Detroit, Michigan

DITCHES TERRACES Martin

New Improved Martin Farm Ditcher and Field Terracer. Turns water-soaked and washed acres into producing land. All steel. Adjustable, reversible. Does work of 100 men. Open Drainage, tiling, irrigation, terracing, road grading. Low prices liberal terms. Send for free book.

Owensboro Ditcher & Grader Co., Inc., Box 3015 Owensboro, Ky.

10 Days Trial

TREES PLANTS SHRUBS

The S. & H. free catalog for 1925 lists the pick of 1200 luxurious acres. Hardy fruit and shade trees, active vines and berry bushes, sturdy perennials and ornamentals—in fact everything amateur or professional nurserymen and orchardists can want is here. Postcard will bring catalog without delay.

THE STORRS & HARRISON CO. Nurserymen and Seedsmen for 71 years

Box 689, PAINESVILLE, OHIO.

Agricultural Lime High Calcium. Either lump or hydrated. Also spraying lime in wooden or steel barrels or paper sacks. Price mailed on request. NORTHERN LIME & STONE CO., Petoskey, Mich.

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results under classified headings. Try it for want ads and for advertising miscellaneous articles for sale or exchange. Poultry advertising will be run in this department at classified rates, or in display columns at commercial rates.

Rates 8 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 6 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order.

Real estate and live stock advertising have separate departments and are not accepted as classified. Minimum charge, 10 words.

	One	Four		One	Four
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

REAL ESTATE

TWO FARMS FOR SALE in Barry County. One forty acres, best in State. One 27-acre fruit farm. For prices and information write A. W. Reickard, 122 E. State Road, Hastings, Mich.

FOR SALE OR TRADE—360 acres of Montana farm, 130 acres plowed, 200 acres can be plowed yet. This is No. 1 wheat land and stock raising country, plenty of open range for stock. Very healthy climate. Plenty of good coal and natural gas on this place, also oil rights go with it for $20 per acre. No debt. Take part cost or trade for good farm and good buildings. 20 rods from school. Joe Martinchek, R. 2, Custer, Mich.

WRITE FOR LIST of Ohio farms, stating size and kind wanted. Ohio Farm Sales Co., Box 244, Bellefontaine, Ohio.

Write for our free list of good farms. DeCoudres, Bloomingdale, Mich.

FOR SALE—3 miles from Lansing, 121 Acres, good buildings. Owner ill. S. Hempy, R. 7, Lansing, Mich.

FOR SALE—Three Ogemaw County Farms, 120 acres, 80 cleared, 40 timber, improvements. Price $3,000. 80 acres, 40 cleared, 40 timber, house. Price $1,500. 160 acres pasture and brush. Price $1,000. Home seekers' opportunity, Ontonagon Co., Upper Peninsula, 12,000 acres hardwood cut over, clay loam, first crop will prove this to be the best land in Michigan. Price $10.00 per acre. Own your farm and be independent. Write today. West Branch Land Co., West Branch, Michigan.

$750 GET 194-ACRE FARM—Horses, 12 Cows and Heifers, poultry, implements, tools, hay, corn, fodder, etc., included; 194 acres convenient busy depot town; 100 acres loamy fields, pasture, estimated 150,000 ft. timber, sugar bush, variety fruit; substantial 9-room house, large barn, 2nd barn, poultry house. Low price $2,500 for all, only $750 needed. Details pg. 64 Big Illus. Bargain Catalog. Free. Strout Farm Agency, 427KH Marquette Bldg., Chicago, Ill.

440-ACRE FARM—2 hours drive from Detroit on Grand River Road. Can be bought with or without stock and tools. Best land in Livingston county. Buildings with latest improvements. Owner will make great sacrifice for quick sale before spring work is on. Can be bought in all or half of the farm. Apply Rose Shapiro, R. 2, Fowlerville, Mich.

250-ACRE FARM in Emmet Co. Good buildings, water, woven wire fences. Two miles from town. Can be bought for less than cost of buildings and fences. Will sell with or without stock and tools. F. W. Crowl, Harbor Springs, Mich.

80-ACRE FARM For Sale by Owner, level clay loam, tile drained. Modern buildings, on improved road 8 miles from Lansing, Mich. Joseph J. Martin, R. 4, Yale, Mich.

WANTED TO RENT on shares or work by month, furnished farm by experienced stockman. H. R. Coons, 48 Lafayette, Pontiac, Mich.

WANTED—To hear from owner of farm for sale, for spring delivery. O. Hawley, Baldwin, Wis.

MISCELLANEOUS

WEAR AND SELL a $12.50 Tuff-Tex Utility, almost indestructible, suit or slip-on. Union made, grease, dust, spark and semi-waterproof. In towns and rural districts throughout Michigan, salesmen easily make $12.00 per day. Part time men $12.00 to $36.00 per week. Write for particulars. Ogden-Aubert Company, 240 W. Wesley, Jackson, Michigan.

HAVE RETAIL COAL YARD in Port Huron. Splendid business. Will sell or trade for good farm in good location. Invite inspection. If you have Alfalfa Hay to sell, quote us prices and state quantities. Port Huron Storage & Bean Co., Port Huron, Mich.

OLD MONEY WANTED. Have you an odd or old coin or bill? It may be worth several dollars. Get posted. Send 4c for Coin Circular. May mean much profit to you. Send now. Numismatic Bank, Dept. M, Fort Worth, Texas.

CEDAR FENCE POSTS for sale in carload lots. G. B. Crowley, Hillman, Mich.

NOTICE—Safety Razor Blades Re-sharpened, 4c each. McNitt, Breedsville, Mich.

TOBACCO

TO INTRODUCE, quick, our famous old Kentucky Chewing and Smoking Tobacco, we will send prepaid 3 big sample packages and give you absolutely free a fine Italian Briar Pipe—regular $2 value—all for only $1.00. "Largest dollar's worth I ever bought," writes John Mosely. Finest tobacco in the world—sweet and mellow. One big sample only 30c. Send today. Kentucky Tobacco Company, Box 12, Owensboro, Kentucky.

HOMESPUN TOBACCO. Chewing 5 lbs. $1.50; Ten $2.50; Smoking 5 lbs. $1.25; Ten $2.00. Pay when received, pipe and recipe free. Farmers' Union, Paducah, Kentucky.

HOMESPUN TOBACCO—Chewing, five pounds, $1.50; ten, $2.50; twenty, $4.50. Smoking, five pounds, $1.25; ten, $2.00; twenty, $3.50. Pipe Free. Money back if not satisfied. United Tobacco Growers, Paducah, Ky.

HOMESPUN TOBACCO—Chewing, 5 lbs., $1.50; 10 $2.50. Smoking, 5, $1.25; 10, $2. Mild, 10, $1.50. Pay when received. F. Gupton, Bardwell, Ky.

TOBACCO—Select Chewing, 3 lbs., $1.00; Fancy Smoking, 5 lbs., $1.00. C. Scott, S202, Sedalia, Ky.

SEEDS AND NURSERY STOCK

HARDY FIELD GROWN—Chrysanthemums, sweet william, daisies and all old-fashioned or hardy perennial flowers. Iris, cannas, gladiolus, and tuberose bulbs. Spiraeas, shrubbery, climbing vines, roses, ornamental trees and hedging. Strawberry plants. Rhubarb and asparagus roots. Thousands of satisfied customers. Delivered prepaid prices. Send for catalogue. Weaver Gardens, Wichita, Kansas.

CHOICE SEED CORN—1000 bu. 100-day Improved Yellow Dent; 500 bu. Lancaster County Sure Crop; 300 bu. Early White Cap, nearly all 1923 Crop, all high germination. Write for price, Sample and Circular. Order early to save money. Shull Farm, Box 12, Tullytown, Bucks Co., Pa.

SEEDS—"Kansas" Alfalfa, $7.00 and $9.50 bushel. Sweet Clovers, Red Clover, Alsike, Timothy, Sudan, Cane, Kaffir, Millets, Seed Corn, Soy-beans, Cowpeas. Bags free. Send for samples. Solomon Seed Company, Solomon, Kansas.

RHUBARB-MAMMOTH VICTORIA—1-yr. whole roots, 20, $1; Giant Crimson 3-yr. divisions, 8, $1; Asparagus Roots, 50, $1. Delivered prepaid anywhere. Weaver Gardens, Wichita, Kans.

FREE—NEW RED RASPBERRY—Tip Grower. Very Hardy. Send for Literature. Strawberries $3.00 per 1,000. All Small Fruit Plants. Dept. H, Hellenga's Nursery, Three Oaks, Mich.

MILLIONS Strawberry Plants $2.95 per 1,000. Raspberries, Grapes, Bulbs, Flower Seeds, Chicks. Illustrated catalogue Free. Mayers Plant Nursery, Merrill, Mich.

ALFALFA SEED—60 bushels, guaranteed hardy grown seed, $18.00 per bushel, all clean seed and about 99½% pure. Henry Foley, Mt. Pleasant, Michigan, R. 5. Bags free. Samples on request.

REGISTERED WOLVERINE OATS—Michigan's Best. C. D. Finkbeiner, Clinton, Mich.

CERTIFIED Wolverine Oats. Certified Robust Beans. A. B. Cook, Owosso, Mich.

GENUINE GRIMM ALFALFA SEED—40c pound. Sam Bober, Newell, South Dakota.

PET STOCK

THOROUGHBRED COLLIE PUPS—Some natural Heelers, also grown Stock. Sable and White Collie at Stud. G. J. Dunnewind, R. 1, Comstock, Mich.

WHITE COLLIE AT STUD—Captain White A. K. C. 424701, fee $12.00. Write for particulars. Homestead Kennels, Saranac, Mich.

FOR SALE—Beautiful White Collie puppies at farmers' prices, from trained stock, farm bred. Hezner Brothers, Reed City, Mich.

GERMAN SHEPHERD (Police) pups. Ideal farm dog. Farmers' prices. On approval, express prepaid. F. Chapman & Son, Vandalia, Mich.

AIREDALE TERRIER PUPS—One Brood Matron, Best Breeding. John Litwiller, Ithaca, Mich.

HIGH CLASS Registered German Police puppies from imported stock. Theodore D. Hicks, Allegan, Mich.

GERMAN Police Shepherd puppies. Milan Black, Howard City, Mich.

INCUBATORS

"SWAP" your little old incubator for "New Ohio" quality hatcher. Hatch bigger hatches—hatch better chicks. Get a bigger, better machine. Unusually low prices now and liberal allowance for yours. 100, 250, 400, 600, 800, 1200, 1800 egg sizes. No better machines—few as good. Best guarantee. Big illustrated folder gives full particulars. Geo. J. Wettschurack, Lafayette, Ind.

POULTRY

COCKERELS, BARRED ROCKS—from hens with official Laying Contest Records 207 to 302. No better Rocks in America. Proven in Laying Contests and Show Rooms. Chicks. Eggs. Write for prices. G. Caball, Hudsonville, Mich.

POULTRY AND FRESH EGGS WANTED—Will pay highest prices for broilers, fryers, 1½, 2, 2½ lbs. each, fat hens. Strictly fresh white hennery eggs. Write for quotation. East Coast Poultry Co., 700 Alfred St., Detroit, Mich.

ROSE COMB RHODE ISLAND REDS—300-egg strain. Cockerels $3 to $5. Satisfaction guaranteed. Don Bevan, Kankakee, Ill.

CHOICE RINGLET Barred Rock Cockerels, real Rock type. Satisfaction guaranteed. Earle Murphy, Britton, Michigan.

SILVER LACED or White Wyandotte quality cockerels, three to five dollars each. C. W. Browning, Portland, Mich.

SINGLE COMB White Leghorn Pullets for sale. Selected Stock, $2 each. Geo. Allan, Box 7, Redford, Mich. Phone Farmington 58-F3.

"TANCRED" White Leghorns—Barred Rocks—State Fair Winners. Buff Orpingtons. Guineas. Fenner Bailey, Montgomery, Mich.

S. C. R. I. RED COCKERELS—Good color. Selected stock. O. E. Hawley & Son, R. 3, Ludington, Mich.

BARRED ROCK COCKERELS $3. Melva Storms, Millersburg, Mich., Presque Isle Co.

COCKERELS—Ringlet Barred Rocks bred to lay, weigh and win. Robt. Martin, Woodland, Mich.

GEESE, DUCKS—Fourteen varieties, free circular. John Hass, Bettendorf, Iowa.

FOR SALE—Large Toulouse Geese, hens $5; ganders $6. Satisfaction guaranteed. Don Bevan, Kankakee, Ill.

WHITE WYANDOTTE COCKERELS—High quality stock. Howard Grant, Marshall, Mich.

BUFF ORP. CKLS—fine stock, well matured, guaranteed, $5.00. J. E. Seckinger, Manchester, Mich.

S. C. RHODE ISLAND RED cockerels, Mahood Strain, $4. Alfred Deichmann, Pigeon, Mich.

FOR BIG TYPE Toulouse Geese try M. B. Noble, Saline, Mich.

FOR SALE—Thorobred Toulouse geese, $4.00. Dan McAvoy, R. 4, Laingsburg, Mich.

BABY CHICKS

SUPERIOR QUALITY Barred Rock and Pure Hanson White Leghorn Chicks. Stock Blood Tested second season. Highest Barred Rock at Michigan and Missouri Contests, 1923-24. Contest winners 1921. Discount for early orders. Satisfaction guaranteed. Circular Free. Aseltine Poultry Farm, 1827 Belden, Grand Rapids, Mich.

"ILLINOIS ACCREDITED" pure-bred chicks. State-inspected breeding stock. Barred Rocks, Single Comb Reds, $15-100. White Wyandottes, Buff Orpingtons, White Rocks, $16-100. Postpaid, 100% live delivery. Hatch every Monday, order from ad. Member International and Illinois Chick Association. Earlville Hatchery, 30 Ottawa St., Earlville, Illinois.

OAKLAND HILLS QUALITY CHICKS—Strong, vigorous, true to breed, profitable. English Leghorns, Reds, Rocks, White Wyandottes, etc. Safe delivery guaranteed. Circular free. Oakland Hills Poultry Farm, Farmington, Mich.

BABY CHICKS—Pure-bred S. C. Anconas, and English White Leghorns from tested breeders of utility and exhibition matings. Send today for mating list and egg records. Special discount on early orders. "Gibbs" Winterlay Hatchery, Bronson, Mich.

BABY CHICKS from America's pioneer hatchery have pleased over 25,000 customers. 22nd season. We hatch twenty popular varieties. Guaranteed safe delivery by prepaid parcel post. Write for 40-page catalog and free premium offer. Miller Hatcheries, Box 759, Lancaster, Mo.

BABY CHICKS—Pedigree Sired Eng. W. Leg. Chix, delivered 100% alive at your door at our low prices of $12.50 per 100; $60 per 500; $110 per 1000. Circular free. Model Poultry Farm, R. 4, Zeeland, Mich.

BABY CHICKS—S. C. W. Leghorns (Hollywood Strain). Barred Rocks (Parks Strain). Send for catalogue. Snowflake Poultry Farm, Route 5, Middleville, Mich.

BABY CHICKS from heavy egg producing strains. R. I. Reds, B. Rocks, and White Leghorns. Farmrange Chick Hatchery, Charlotte, Mich.

BABY CHICKS from flocks blood-tested for Bacillary White Diarrhea. All flocks tested—second test on Rocks and Reds. All popular varieties. Ask for Catalogue. Pierce Hatchery, Jerome, Michigan.

BABY CHICKS AND EGGS—Superior Ringlet Barred Rocks, Rose Comb Rhode Island Reds, White Leghorns. Wyndham's Ideal Hatchery, Tiffin, Ohio. Circular.

BABY CHICKS—White Wyandottes, White and Barred Rocks, R. I. Reds and S. C. White Leghorns. Grace Milliken, 880 North LeRoy St., Fenton, Mich.

S. C. BUFF LEGHORN CHICKS—First hatch March 3. Circular. Willard Webster, Bath, Mich.

TURKEYS

TURKEYS—Mammoth Bronze, Bourbon Red, Narragansett, White Holland. Hens, Toms. Pairs and trios. No kin. Order early. Walter Bros., Powhatan Point, Ohio.

GIANT BRONZE TURKEYS—Goldbank Strain. Choice heavy birds. Satisfaction guaranteed. Mrs. Perry Stebbins, Saranac, Mich.

WHITE WYANDOTTE COCKERELS and Hens. Eggs. Earle R. Morrish, R. 6, Flint, Mich.

MAMMOTH BRONZE TURKEYS—especially good value in toms. Mrs. Eugene Ramsdell, Hanover, Mich.

PURE-BRED Mammoth Bronze Turkeys, Toms and hens. Earl & Merle Phelps, Dowagiac, Mich.

WHITE HOLLAND TURKEYS—Tolouse Geese. Alden Whitcomb, Byron Center, Mich.

AGENTS WANTED

FERTILIZER SALESMAN WANTED—Reliable Company wants to develop capable salesmen for Ohio, Indiana and Michigan territory. Prefer up-to-date farmers, experienced selling fertilizer locally. Permanent salary and expenses paid position, if you can "make good." Address at once, giving full particulars and references, Box 340, Michigan Farmer, Detroit, Mich.

WANTED—FRUIT TREE SALESMAN—Profitable pleasant, steady work. Good side line for farmers, teachers and others. Permanent job for good workers. Write for terms. I. E. Ilgenfritz Sons' Co., The Monroe Nursery, Monroe, Mich.

BIG MONEY Selling New Household Cleaning Set. Washes and dries windows. Sweeps, scrubs, mops. All complete only $2.95. Over half profit. Write Harper Brush Works, 173 3rd St., Fairfield, Iowa.

WE PAY $200 monthly salary, furnish car and expenses to introduce our guaranteed poultry and stock powders. Bigler Company X 683, Springfield, Ill.

HELP WANTED

HELP WANTED—Experienced couple for our modern dairy farm in Augusta, Mich. Man must understand feeding, milking and care of dairy cattle, and be very clean, and agreeable of disposition. Good house and high wages for right party. None but first class folks who want permanent work need apply. Give references and all particulars in first letter. Could also use one or two experienced single men to board with them. Apply to Robt. E. Maes, care Milk Producers' Co., Battle Creek, Mich.

WANTED—Man and wife without children for modern tenant house. Man to be good milker, wife to board two or three men. Also middle aged lady for owner's residence, good housekeeper. House is furnished. Apply Bazley Stock Farm, Ypsilanti.

WANTED—Married man by year on farm. Box 77, Michigan Farmer.

The Original Olde Tan Metal-to-Metal Harness

We show you here a big picture of the way metal-to-metal makes a harness wear longer. See for yourself how metal wears against metal instead of against leather. The part shown here is the breeching dee. Notice how, before there can be any wear on the leather, a thick piece of metal must wear through first.

This construction is carried out in every part of the Olde Tan Metal-to-Metal Harness where there is strain, wear or pull. Introduced only three years ago by Olde Tan, it is not yet known how many extra years of wear this construction will give a harness. It is estimated that it will make a harness last many more years. Olde Tan harness even without the metal-to-metal feature was capable of lasting 12 to 15 years. Harness with that many years behind it is still in use. The maker of Olde Tan made harness for the Armies during the Civil War and parts of the harness were found on the battle fields in fairly good condition as late as 1885, or 20 years after the war.

At the tannery is a strap which was buried 10 years in a barnyard and which is still pliable and strong. In a leather strength test held in Chicago in 1923, Olde Tan straps and traces won over every other entrant, being more than twice as strong as one of the contestants and 30 per cent stronger than the second strongest. Hundreds of letters of real enthusiasm have been received from Olde Tan owners who declare that never have they seen such a harness—never such heavy strong leather, and never such careful and precise sewing and construction.

BABSON BROS., Dept. 31-02
19th Street and Marshall Blvd., Chicago, Ill.

Please send me free your Olde-Tan Harness Book telling all about your 30 day free trial and easy monthly payment offer on Olde-Tan Harness.

Print your name and address plainly

My Name .....

My Address .....

.....

Mail this Coupon for FREE Catalog

If you believe that you even may buy another harness within the next year, you should ask for the Olde Tan catalog and learn all about the real leather which goes into this harness. Also get our unusual offer—free trial for 30 days—so you can see for yourself the quality of leather—the way metal against metal wears, and the fine appearance and extraordinary strength. After 30 days trial you keep Olde Tan or send it back as you choose. If you keep it, send only $7.50 and pay the balance by the month. BUT, ask for the free catalog today.

BABSON BROS., Dept. 31-02 19th St. and Marshall Blvd., Chicago, Ill.