

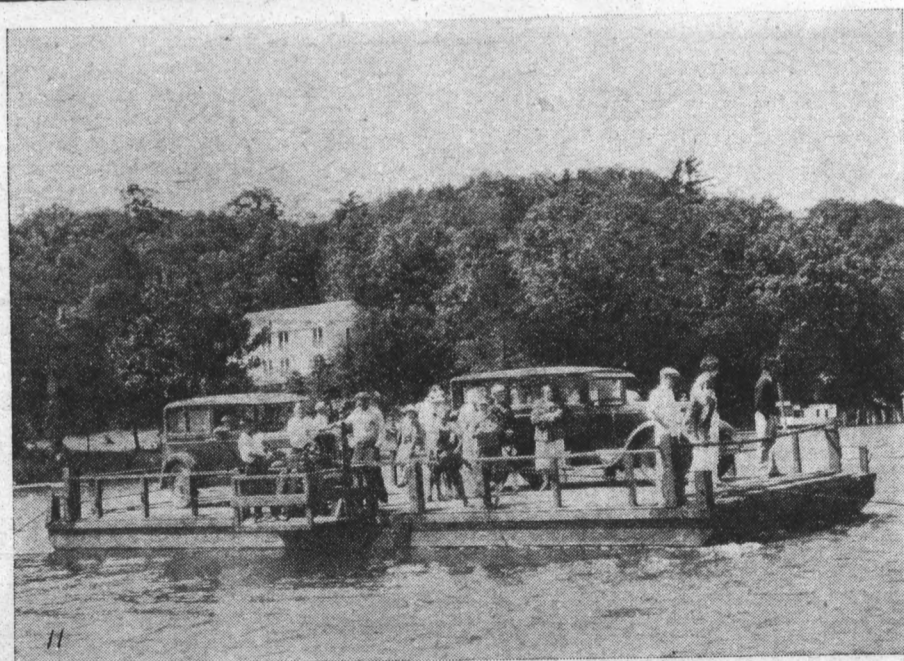
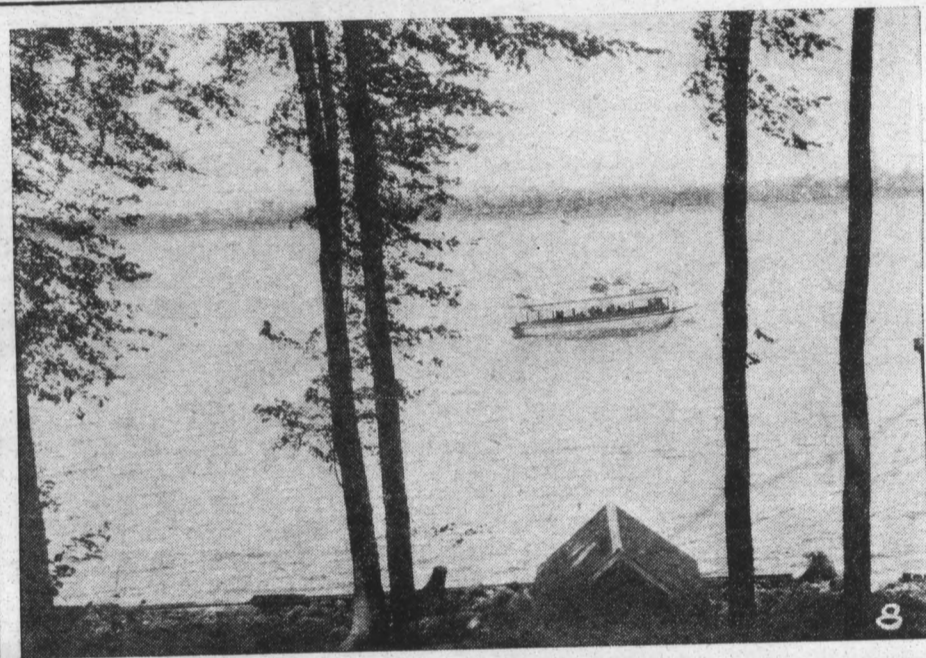
# MICHIGAN FARMER

AND LIVE STOCK JOURNAL  
PUBLISHED WEEKLY. ESTABLISHED 1843.

Vol. CLXX No. 8

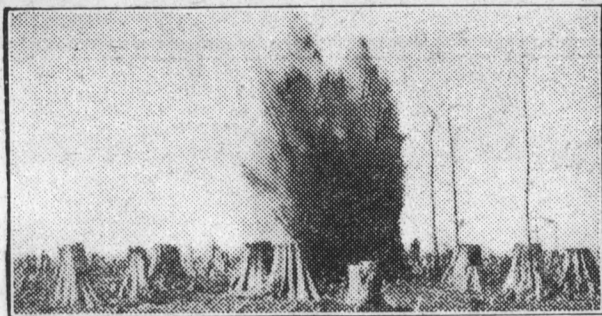
DETROIT, MICH., SATURDAY, FEBRUARY 25, 1928

Whole No. 4801



THE upper picture presents a view of Paw Lake, near Water-vliet, in Berrien County, on U. S. 31. This large inland lake is not far from Lake Michigan and is popular as a summer resort. It is surrounded by wooded shores which are dotted with cottages.

The old type chain ferry shown below connects Saugatuck and Douglas which are separated by the Kalamazoo River. It is the only ferry of its kind in existence. These towns are on U. S. 31, in Allegan County, and are surrounded by a scenic sand dune section.



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### the successor to Pyrotol

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This coupon will bring you a valuable booklet describing AGRITOL—the new land-clearing explosive replacing Pyrotol. Mail the coupon today.

Your County Agricultural Agent will help you make More Money out of your farm



REG. U. S. PAT. OFF.

E. I. DU PONT DE NEMOURS & CO., INC.

MF-22, Explosives Department,  
Wilmington, Del.

Gentlemen: Please send me a copy, free, of your booklet describing Agritol for land-clearing.



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R.F.D.....  
Place..... State.....

**Surprising!**

—that a lacing so easily applied gives so long a service

Only a hammer is needed. Follow printed directions. Used and recommended by leading thrasher and implement manufacturers, and by agricultural schools. Your dealer has it.

**ALLIGATOR**  
TRADE MARK REG. U.S. PAT. OFFICE  
**STEEL BELT LACING**

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## YOUR FARM PROPERTY

With Our Liberal Form Blanket Policy

Per \$1,000, Rodded Class No. 1, "Gold Seal" **RATE \$2.94** No Policy or Membership Fee. Pay assessment 6 months advance

Only 10 assessments last 11 years, average cost \$2.42 per \$1,000—\$25,000 in reserve fund, drawing interest, saved by good management and Fire Prevention activities. We borrow no money—pay no interest. Losses fairly adjusted and promptly paid. We pay full insurance on buildings, and 100 per cent on live stock, poultry, hay, grain, produce, etc. Assessments paid in advance. No dead beats to leave their share to be paid by other members. If inconvenient to pay

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By H. W. Warner

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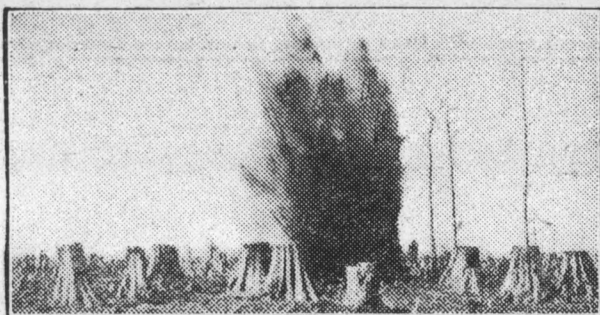
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Place..... State.....

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—that a lacing so easily applied gives so long a service

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TRADE MARK REG. U.S. PAT. OFFICE  
**STEEL BELT LACING**

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**RATE \$2.94**

No Policy or Membership Fee. Pay assessment 6 months advance

Only 10 assessments last 11 years, average cost \$2.42 per \$1,000—\$25,000 in reserve fund, drawing interest, saved by good management and Fire Prevention activities. We borrow no money—pay no interest. Losses fairly adjusted and promptly paid. We pay full insurance on buildings, and 100 per cent on live stock, poultry, hay, grain, produce, etc. Assessments paid in advance. No dead beats to leave their share to be paid by other members. If inconvenient to pay

Agents Wanted.

now we will accept 60-day note, which may include Fire Extinguishers and Spark Arresters, if required.

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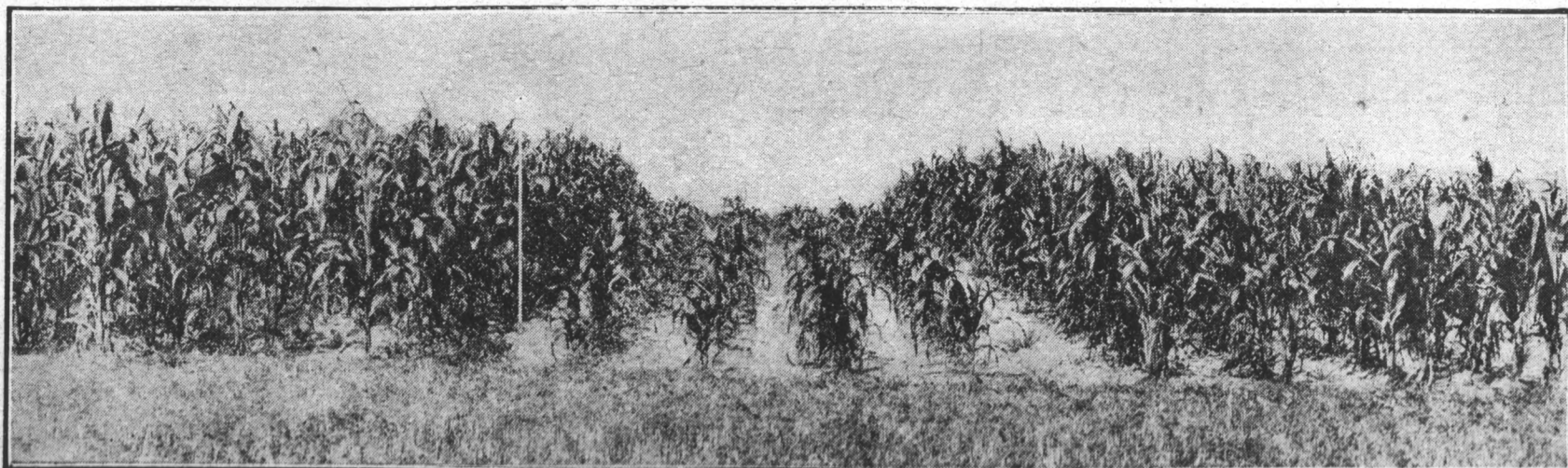
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VOLUME CLXX

NUMBER EIGHT

DETROIT, FEB. 25, 1928

## CURRENT COMMENT

Things  
That  
Confuse

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fuse us. One is  
the apparent ease  
promoters seem to  
have in interesting  
Congress in reclama-  
tion projects for increasing agricul-  
tural lands. This, too, at a time when  
Congress persistently expresses a de-  
sire to aid agriculture in taking care  
of the all-ready burdensome surplus of  
farm production.

The other matter concerns the atti-  
tude of the eastern farmer on trans-  
continental rates on agricultural pro-  
ducts. Recently, at a hearing in Chi-  
cago, the representatives of one of the  
largest eastern and mid-western farm-  
er organizations favored the reduc-  
tion of rates from second to third  
class on carload egg shipments. Who  
would benefit from this reduction?  
Certainly none other than the Pacific  
coast farmers who find it convenient  
to ship eggs in carload lots, to suc-  
cessfully compete with the poultrymen  
of Michigan and other eastern farm-  
ers for the Atlantic coast egg trade.

Here is another case. A group of  
eastern feeders recently petitioned for  
a reduction in the freight rate for  
alfalfa hay from the West. Can we  
not grow sufficient alfalfa hay in the  
eastern states to care for the demand  
for that product and will not the farm-  
ers of these states be immeasurably  
better off for having added alfalfa to  
their crop rotation, than in working  
out a program requiring the trekking  
of this product across the continent?

Another case of particular interest  
to Michigan producers is the estab-  
lished rates on grapes as set down by  
the Interstate Commerce Commission.  
From Lawton to New York City the  
distance is a little over eight hundred  
miles. It is about thirty-six hundred  
miles, or four and one-half times as  
far, from Los Angeles to New York City.  
The freight rate on grapes from  
Lawton to the Atlantic sea port is

\$1.17 and from Los Angeles it is  
\$1.73. There may be a sound basis  
for these rates but we cannot under-  
stand it. Our thought is that in the  
interest of good transportation serv-  
ice, the rate from the West is en-  
tirely too low. Certainly the small dif-  
ference between these figures cannot  
be justified.

So here we have a dilemma. Farms  
are being developed in the West  
through appropriations made by Con-  
gress while farms are being aban-  
doned in the East. At the same time  
farmers of the East are lending their  
influence to lower freight rates on  
western farm products which comes  
in direct competition with the pro-  
ducts of the eastern farms.

We do not feel that it is just to tax  
the eastern farmer for the develop-  
ment of western competition to his  
business. We feel also that rates on  
agricultural products ought to bear  
some relation to the distance which  
transportation companies are called  
upon to carry those products.

Put  
the Land  
to it

**O**NE of the Mich-  
igan Master  
Farmers, E. W. Lin-  
coln of Montcalm  
County, has a unique  
objective which un-  
doubtedly is responsible for his suc-  
cess. He says that before he quits  
farming he wants to find out just how  
much an acre can produce.

This ambition has made him an out-

standing farm leader in his commu-  
nity and one of the real successful  
farmers of the state. When one feeds  
the land heavily as Mr. Lincoln does,  
selects seeds that will readily respond  
to good soil conditions, and gives good  
attention to crop needs during the  
growing season, one can expect the  
soil to produce bumper crops.

It is the attitude of mind that is  
interesting. Mr. Lincoln does every-  
thing he can to make good crops and  
then expects the soil to come across  
with results, and rarely does the soil  
disappoint. One can readily see that  
success will come to those who take  
that attitude rather than to those ex-  
pecting to get as much as possible out  
of the soil without putting anything  
into it.

Farmers of Mr. Lincoln's type recog-  
nize that man and the great forces of  
nature are in partnership in the pro-  
duction of successful crops. If man  
fails in his part, the partnership will  
be a failure.

The immutable laws of nature are  
much like a gasoline engine. The en-  
gine itself can do little, but if man  
furnishes gasoline, oil, water, and  
"spark," it will run with little atten-  
tion. So in farming it is man's duty  
to himself to furnish those necessities  
which will let nature work smoothly  
and efficiently in production.

The man who fails to feed his soil  
is like the one who runs his engine  
without oil. He is not getting results  
and is ruining his soil besides.

demonstration agent in practically  
every rural county of the United  
States.

## Boys' and Girls' 4-H Club Work

Mr. President, the most outstanding  
feature of the extension work has  
been the cooperation of men, women,  
boys, and girls on the common prob-  
lems of the farm and the home. It  
would be impossible to develop a pro-  
ductive dairy herd on a farm if the  
young people were not interested in  
dairying. It would likewise be impos-  
sible to make a happy and comfort-  
able farm home if boys and girls  
were not interested in farm and home  
life.

• In the 12-year period following the  
passage of the Smith-Lever Act, 1915-  
1926, inclusive, more than 6,000,000  
boys and girls have been engaged in  
4-H club work. As club members,  
these boys and girls pledged them-  
selves to carry out a farm or home  
enterprise, using the best practices  
developed by the State agricultural  
colleges and the United States De-  
partment of Agriculture. Under the  
supervision of State and county ex-  
tension agents of these cooperating  
institutions, they undertook voluntar-  
ily to teach themselves, their friends,  
and their neighbors, by actual demon-  
strations, the value of such practices.  
In so doing, they have made a genu-  
ine and substantial contribution to the  
improvement of American farm life.

Millions of Youths in Need of  
Leadership

We have about 11,000,000 boys and  
girls between the ages of 10 and 18  
in the rural districts of the United  
States, nearly 3,000,000 of whom, or  
about 27 per cent, are not in school.  
The greater number not in school are  
between the ages of 14 and 18. That  
is a group nearly half as large as the  
farmers in the United States. These  
young people are out of school for  
various reasons—some because their  
parents want them to work, some be-  
cause they are tired of school and do  
not want to attend, some because they  
do not think an education pays, and  
some because they do not get along  
well in school. For one reason or  
another they are out of school, and  
out at just the most critical time in  
their lives. Boys and girls, 14,  
and 16 years old, just changing to man-  
hood and womanhood, are out of  
school and receiving little or no guid-  
ance from any public agency. How  
shall we continue their education  
along right lines? Can we give them  
any guidance?

Further Education for Farm Boys  
and Girls

Mr. President, the State agricultural  
college is peculiarly interested in rural  
problems. It is an educational insti-  
tution. It would seem that these  
3,000,000 rural boys and girls out of  
school in the rural districts of the  
United States are especially its con-  
cern and that of the State. Under the  
guidance of the agricultural college,  
and aided by the counties and the  
people themselves, we should con-  
sciously go about reaching, influenc-  
ing, guiding, and continuing to edu-  
cate this group.

Mr. President, this bill will help to  
provide the qualified and trained lead-  
ership not now available in the ex-  
tension service, necessary to reach the  
large number of rural boys and girls  
who are not now able to participate in  
the advantages of boys' and girls' 4-H  
club work.

All of us who have been engaged  
in public affairs have come in contact  
with these members of the 4-H clubs.  
They are serious-minded, happy, in-  
dustrious young people. These 4-H  
clubs are open to every boy and girl,  
without dues or other formalities. The  
only requirement is that each shall  
undertake a home project, using the  
better practices in agriculture or home  
economics, and then passing the result  
of the trials on to friends and neigh-  
bors.

## Completes Extension Service

Senator Capper Holds That Service Should be Universal

**T**HE further development of co-  
operative extension work in agri-  
culture, home economics, and  
boys' and girls' club work is the ob-  
jective of Senate bill 1285, introduced  
by Arthur Capper, senator from Kans-  
as, and supported in an address before  
that body on February 6. His remarks  
seem prophetic of a new epoch in  
rural life. He said in part:

The present bill is the result of the  
combined effort of the United States  
Department of Agriculture, the land-  
grant colleges, the farm organizations,  
business organizations, women's or-  
ganizations, and civic groups. In fact,  
all organizations that should be inter-  
ested in extension work have ex-  
pressed themselves as favorable to the  
bill. There are some minor changes  
in the bill from the original Smith-  
Lever Act.

All Farming Sections Not Equally  
Benefited

The purpose of this bill is to supply  
sufficient funds to complete the ex-  
tension system by increasing the  
funds each year for 13 years. There  
can be no question as to the advisa-  
bility of completing the extension or-  
ganization along the lines laid down  
in this bill. It has the unqualified ap-  
proval of every agency concerned. It  
follows the plan that has been in  
operation under the Smith-Lever Act  
for 13 years. It has proved success-  
ful under test. The bill is sufficiently  
elastic to meet the conditions as they  
exist in the States. In the South,  
where only home demonstration  
agents and county agricultural agents  
are employed, the work will be ex-  
panded to care for the boys and  
girls by the addition of assistant  
county agricultural agents and assis-  
tant county home demonstration  
agents. In the North, where boys' and  
girls' club agents are employed, the  
club agents can be introduced into  
counties as rapidly as the people de-  
mand them and the funds are avail-  
able.

County agricultural agents are em-  
ployed in approximately 2,100 counties.  
There are about 700 counties which do  
not have the services of agents to ad-  
vise with them regarding their prob-

lems of production and marketing. I  
hold that it is obvious that one-quar-  
ter of the counties are laboring under  
an unusual handicap because they do  
not have an agent to bring them the  
results of experimental work.

## Home Demonstration Work

Mr. President, home demonstration  
work to date has rendered a service  
to farm women and girls which has  
brought about economic contribution,  
home-making efficiency, and social  
satisfaction in farm homes in every  
State. One million farm homes were  
reached by home-demonstration work  
during 1926.

That home demonstration work is  
meeting a vital need is indicated by  
the volume of unpaid volunteer serv-  
ice which is being given to its devel-  
opment and further expansion by farm  
women. During 1926, 126,709 farm  
women gave an average of 12 days'  
time per woman in helping to plan the  
program, in extending the information  
to women already in organized groups,  
and in interesting additional women  
to join the groups for the purpose of  
receiving the information.

## Farm Women Discouraged

Farm women in America are going  
through such a period of discourag-  
ement due to economic difficulty and  
inequality of social and educational  
opportunity for themselves and their  
children that their courage needs  
strengthening if the better type of  
families are to remain on farms. When  
it is realized how much improvement  
in condition in farm homes and in  
morale among farm women has been  
brought about by the present limited  
home demonstration staff, and when  
it is realized that the farm woman  
and the farm home are equally vital  
factors with the farmer and the farm  
in determining the future of agricul-  
ture in America, it would seem wise  
expenditure of public funds to extend  
home demonstration agent work to  
the other two-thirds of the agricul-  
tural counties, thus making this help-  
ful service available to all farm  
women and girls throughout the  
United States.

This bill provides sufficient funds to  
cooperate with the States and the  
counties in the employment of a home

# County Agent Gives Advice

*While Farmer Hansen Plies the Questions*

By C. E. Millar

CHRIS HANSEN, the county agent, and I had found the soil in the Hansen hay field quite acid and after talking over the use and value of lime had turned our attention to his wheat field. This soil was badly in need of additional plant food to stimulate the spring growth and fill out the kernels in the fall. Dick, the county agent, had also recommended a heavy application of fertilizer for the potato patch. Chris was convinced that the soil lacked fertility, but I could see that he was not entirely sold on the commercial fertilizer idea. Finally he burst out with, "Dick, this use of fertilizer seems like a fool idea to me. My land used to grow fine big timber and nature never applied any commercial fertilizer to that."

"Well," replied Dick, "this is the way I see it. There is only a certain amount of the plant food elements in the soil that becomes soluble so plants can use it each year. If this amount is not enough to supply the needs of a good big crop then we must either supply some more plant food or else be content with a smaller yield."

"How's it come that only a certain amount of plant food becomes available each year? If the plant food is in the soil why can't the plants use all they want?" demanded Chris.

"It's this way," responded Dick, "The plant food is contained in the soil particles which are really small pieces of rock. These particles must rot or decay before the plant food elements will dissolve out of them."

"What causes this rotting or decay as you call it?" was the next question.

Dick explained how the decomposition is brought about by all sorts of processes, such as freezing and thawing which tends to break the particles up into small pieces thus offering more surface for the dissolving action of water. He also mentioned substances given off by plant roots which act on the soil, the important work of bacteria, and the great variety of complex chemical changes which help to decompose the rock grains.

"If this process of making plant food soluble is so slow, why was it

that we got such big crops when this land was new? We didn't use any fertilizer then." Chris was still on the defensive.

"Well," said Dick, "when the land was first brought under cultivation, it stored soluble plant food which had accumulated during hundreds of years of soil decay."

Chris countered with, "Seems to me that the trees would have used that up."

"They did use considerable quantities, but you must remember that the leaves accumulated on the ground year after year, decaying slowly, and

the soil each year. Otherwise there will not be enough to meet the needs of bumper crops."

"That's my opinion, Chris, what do you think about it?"

"Well, it sounds reasonable, but I don't like the idea of putting all these patent mixtures on my land. I am afraid of hurting it. It seems to me that nature would have put enough plant food in the soil without our needing to buy stuff to supply it."

"Aren't you forgetting," I suggested, "that the plant food in most fertilizers came out of the soil to begin with? Bone and tankage fertilizers are made

plowing under bean straw, clover stubble, weeds, or other plant remains?"

"Well, I don't know, maybe there isn't. I have always heard though that fertilizers will burn the humus out of the soil."

"That was more or less of a common idea at one time, but careful field tests over a long period of years have shown the reverse to be true. The additional roots and stubble resulting from the greater growth of crops brought about by the fertilizer, leaves more organic matter in the soil and really increases the humus content."

"Possibly so, but what's the use of growing bigger crops? We don't get enough for what we do grow. We either need a better marketing system or else ought to cut down production."

"There is certainly room for much improvement in our method of marketing crops," agreed Dick. "If the farmer can sell his products for a higher price or can get a larger percentage of the price paid by the consumer, that will be fine, but there is also another way of increasing profits."

"How's that?" queried Chris.

"By producing at a less cost. If Sam Smith gets twenty bushels of wheat per acre and John Jones, by a better system of soil management, is able to produce thirty, there isn't much question as to who is making the bigger profit. The farmer who gets the greatest returns in crop production for every hour of work he puts in is the fellow who has electric lights and running water in his home."

"Guess you're right about that. Now suppose I want to buy some fertilizer for my wheat, what do I do, tell the dealer I want some wheat fertilizer?"

"Not by a long shot," exploded Dick. "How does he know what your soil needs, or whether or not you have used manure? For your sandy soils he may sell you a fertilizer for heavy soil. The thing to do is to determine what the soil needs for wheat growing and then buy a fertilizer which sup-

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The Combined Results of the Use of Lime and Complete Fertilizer on the Left Are Very Evident

so building up a reserve of plant food. Branches and twigs fell continually and many trees also died. In addition there were bushes and some grass. All these collected on the ground as mould held the plant food contained in them against loss. Also, under forest conditions, less water soaked through the ground carrying away food elements, than when the same land is farmed."

Getting the idea, Hansen cut in. "So when this accumulation of available plant food has been used up it is necessary to use fertilizer to add to the supply that becomes soluble from

from the live stock the farmers shipped to the stock yards and, of course, their cattle, sheep, and hogs got the plant food in their bodies from the crops grown on the farms. Considerable of our nitrogen fertilizer is made from coal. The trees from which the coal was made drew their nourishment from the soil. The potash and phosphates are mined from deposits made by the accumulation for many generations of the portions of these plant foods that have been dissolved out of the soil. Why is there any more objection to using these materials on our land than there is to

## Some Peach Growing Observations

*With Comments on Varieties of Commercial Value*

By Floyd Barden

WE are now at the season when it is necessary to make our selection of varieties for the spring planting. Each year thousands of young peach trees are planted to take the place of the old orchards that are passing beyond their period of usefulness. Among all of the tree fruits, there is no other of so short a life as the peach. There is no fruit common to Michigan that is faced with so great hazards, yet each season a multitude of growers are lured on by this luscious fruit.

There are some consumers that are simply interested in buying a peach regardless of variety. Their only request is that it be a freestone. The next requirement is size. In fact, size is becoming more of an important factor each season. The modern housewife that still pretends to can, is becoming more discriminating in choosing a fruit of large size. Their reason is that it takes too long to peel the small ones. The canning factories also offer considerable premium for the fruit of large dimensions, thus it seems wise to select varieties that naturally grow as large fruit as possible without too great a sacrifice of other essentials.

Color of flesh is another item of great importance. As there is practically no market demand for a white peach, growers do not often plant a variety of this type intentionally. The presence of white peaches in many orchards is due to a slip upon the part of the nurserymen. For real peach beauty, odor, and flavor it is very difficult to surpass some of the white varieties; but the Michigan grower who deliberately plants any of them and expects to realize a profit is accepting a serious handicap at the beginning of his race. A small amount of them may be readily disposed of at a roadside stand or in a special market, but it is a test of real salesmanship to dispose of a large quantity and realize a satisfactory price.

The improvement of the roads and the greater use of the automobile and truck are having an influence upon the planting of the new orchards. These factors are greatly increasing the sales of the grower at his own farm and causing him to plant what the buyers are demanding. He is also planting to give a product over the period of time that it can most readily be dis-

posed of. The names of certain old varieties are deeply seated in the minds of many consumers and they are always inquiring for one of these as first choice. Crawford, Barnard, and Gold Drop are leaders in the minds of many people, and growers have many amusing experiences in endeavoring to satisfy buyers who have certain preconceived notions. According to reports, many other varieties are sold each year under the name of one of these three, depending upon the request of the buyer. Such a policy may help an individual grower to dispose of his particular variety at the time and may satisfy the consumer; but it is not conducive to the development of the best instincts in the individual, neither will it tend to increase future peach sales. If the purchaser secures a good substitute, he or she will be more determined than ever to secure the particular choice in the future, and if an undesirable sort is secured, the peach appetite may be lost and other kinds of fruit may be used in the future to take its place. It occurs to the writer that it is much better to en-

deavor to educate the buyer to the certain variety that may be ripe and allow the purchaser to decide as to its merits.

With some of the general principles in mind it may be of value to discuss a few of the leading peach varieties as the writer has observed them in his section of the fruit belt. It should be remembered that characteristics of varieties may vary considerably with location. Wide differences are noticed in the same locality according to types of soil and elevations. This past season, two orchards less than one-half mile apart, of same variety, age, and trees secured from same source, varied nearly one week in period of ripening. One orchard had a slight southern exposure, while the other sloped gradually to the east.

About the earliest variety of any commercial importance is the Dewey. For a local trade this generally proves very profitable, but production in large quantities is not advisable. It is splendid for table use in its season, when well grown, but is not desired for canning purposes. The trees are hardy and very prolific. It must be pruned and thinned heavily.

(Continued on page 262)

# Officials Endorse Protective Service

*Sheriffs and Prosecutors Approve of Michigan Farmer Protective Service*

By E. A. Shearer  
Manager Protective Service

THE clean-up of farm thievery and farm trespassing is on in earnest. Sheriffs and Prosecuting Attorneys are backing the Farm Property Protective Service of the Michigan Farmer to the limit. "We are with you in this farm property protection program to stop thievery and trespassing," Sheriffs and Prosecuting Attorneys are telling us in letters we have received from every county.

I wish you could sit down with me and read these fine letters. But you can't, so I am going to do the next best thing—give you excerpts from a few of them. I regret space will not permit the printing of each letter received.

Here is one from Sheriff Frank Schram of Oakland County in which he said in his endorsement of the Farm Property Protective Service, "I wish to advise that any cooperation that you can give in coping with farm thievery will be much appreciated by this department. I believe I am in a position to suggest something that would be of benefit to the farmers at large and believe they would be willing to cooperate with the sheriff's department at all times. Would suggest that you request your patrons to keep a close eye on automobiles that might park near their buildings on the highway and immediately call the sheriff's office or the nearest deputy sheriff, requesting an investigation. There would be a lot of good work accomplished this way. If you would suggest to your readers that when chickens are stolen in their community that it would be a good plan for one of the family to sit up nights for a short time with the house darkened and be on the lookout for cars that might stop close to their home and send in a call immediately. In this way I think we could accomplish a great deal in coping with the situation and the cooperation we would get from the farmers in this respect would certainly be a great help to the sheriff's office. I am always glad to receive reports of this nature and will be willing to make prompt investigation."

Mr. Schram is right in requesting cooperation from everyone for it is one of the most effective weapons in catching and convicting thieves of trespassing. By working together, farm folks, peace officers, and the Protective Service can put a stop to the heavy losses of farm property as the result of theft and trespassing.

D. Hale Blake, Prosecuting Attorney of Montcalm County, in assuring us of his endorsement of the Protective Service says, "I assure you that your readers will have whole-hearted cooperation in this office in the matter of prosecuting thieves in this county. You are entirely correct in your statement that farmers are being pilfered to a deplorable extent, and your plan of urging your farmer readers to more promptly report losses and to assist in running down the evidence is a step in the right direction. As to answering your question in your postscript, some farmers do report their losses promptly and cooperate with us to the fullest extent in trying to locate the thieves, while others have apparently preferred to stand the loss and say nothing."

#### Promptness Helps Officers

Wilbur B. Poole, Prosecuting Attorney of Lake County, says, "Your farm property Protective Service is a laudable project and I have made a news item for the 'Luther Observer' announcing it. We have had pretty good cooperation from the farmers who have suffered this way. Several complaints have been made and convictions secured in nearly every case.

Three or four were for chicken stealing."

Archie T. Wilson, Sheriff of Lenawee County, reports, "I am only too glad to cooperate with you in an effort to check the thefts of chickens and other property that the farmer raises. The fault in a good many cases is the lateness in which cases are reported. One instance a year ago—a farmer lost two hundred White Wyandottes on Monday night, and the

we officers have time to fling a net for information around him. Personally, I am with you heartily and am glad to cooperate in any manner."

George Wilson, Sheriff of Alcona County, tells an interesting story. "The farmers are very neglectful in notifying my office of anything stolen. They seem to forget until someone asks them if they have notified the sheriff. There was a case last summer where seventy-five chickens were

is an all together different type from bank robbers and oil station gun men. They are men who are familiar with rural conditions. We find that our people do not report losses by theft as promptly as they should. We recently learned of a case where a man lost seven hundred pullets and made no report of the loss for over a month."

Elmer J. Swanson, Sheriff of Delta County, states: "Farmers in this county are usually very slow in reporting losses to this department. Losses being brought to our attention a long time after their occurrences and sometimes in a round about manner. We would say that only about half of the losses are reported to us at the time they occur. We are confident the farmers of this county will benefit a great deal by taking advantage of the Property Protective Service you have recently organized."

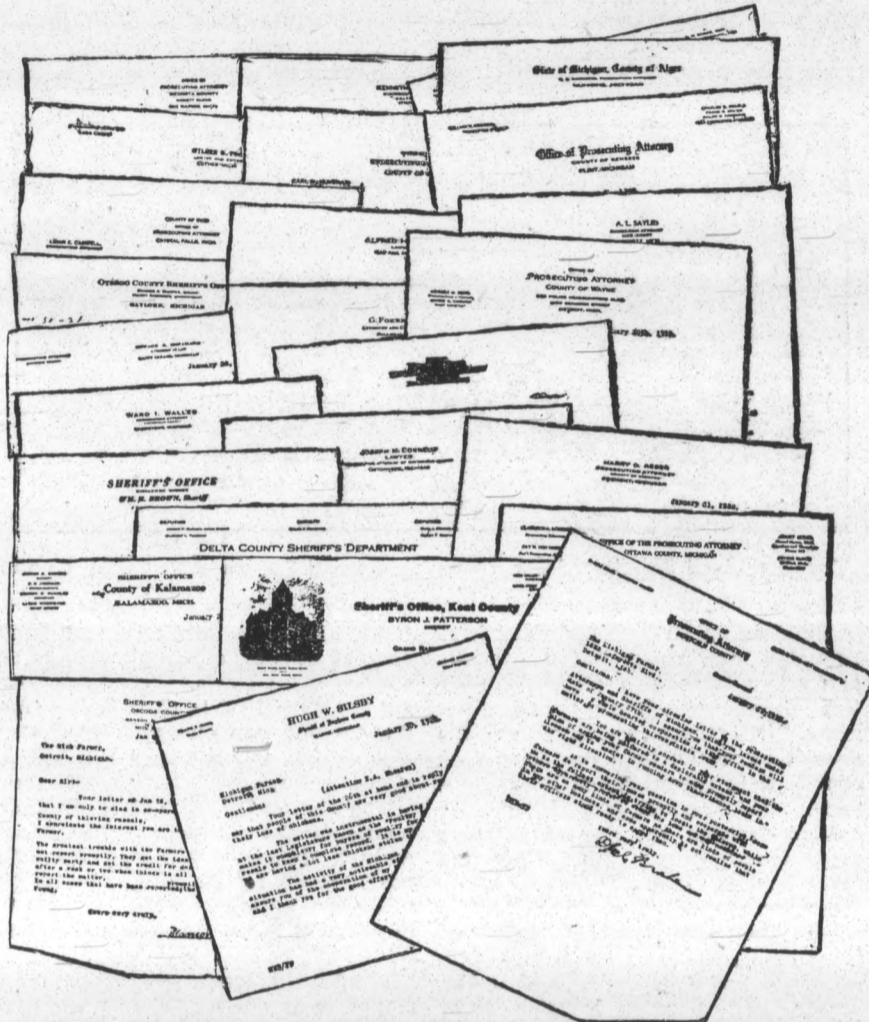
Jerome B. Warden, Sheriff of Kalamazoo County, says: "More power to you" in endorsing our program. "Having a few minutes' time to myself yesterday, I picked up a magazine that was on my desk, The Michigan Farmer, and opened same and commenced to read. The first item that came to my notice was the Michigan Farmer's Protective Service. I looked to see if there was anything effecting Michigan farmers and when I found out what it was, I immediately said, more power to you. This is a great deal like the Vigilance Association the bankers have. The psychological effect alone will work against crooks operating in Michigan. I am highly in favor of it and wish you would put a representative in the field to organize the farmers, for with an organization of this kind it is taboo for the thief. Farmers are rather slow in reporting their losses to the sheriff's department. It is usually twenty-four hours or from three to six days after a loss before it is reported. Educational talks on the part of your organization would be of great benefit."

Harry B. Reeber, Prosecuting Attorney of Newaygo County gives his hearty endorsement as follows: "I am glad to note the effort you are making to cooperate with law enforcement officers. The farmers in this county have been very careless about reporting thefts and in some cases they have made no reports whatever to this office. They seem to have the idea that the peace officers are incapable of getting any more information as to the identity of the party committing the crime than they are themselves. If the farmers generally can be induced to report immediately all thefts, it will help the work of law enforcement officers considerably."

#### Promptness In Reporting Losses

Fisk Bangs, Prosecuting Attorney tells of his problems. He says, "The farmers of this locality are quite prompt in reporting their losses. The problem that gives the peace officers in this locality the most work is locating stolen grain and the failure of the farmers to keep accurate account of their chickens regularly, as oftentimes we get thieves who have stolen a few from each flock and we cannot get a farmer to say that he has lost chickens so the thief may be prosecuted. In one instance we secured seventy-eight chickens and if it had not been for the fact that the men confessed where they had stolen the birds, they never would have been convicted, as the birds were not missed from the several farmers from whom they were stolen. I am glad to see that the Michigan Farmer is developing this new department for its paper, as it

(Continued on page 285)



A Few of the Many Letters Received from Sheriffs and Prosecuting Attorneys Endorsing the Michigan Farmer Protective Service and Offering Their Cooperation in the Drive to Stop Theft and Trespassing.

next Saturday night when he came to town he reported to me. The Tuesday before the Chief of Police of Toledo telephoned me about these chickens and had the two thieves locked up. They held them four days and were obliged to let the thieves go for lack of evidence, as the thieves claimed they bought the chickens. Later I got in touch with Toledo officers securing pictures and fingerprints of the suspects. I got one of the thieves in Arkansas at great expense and he is now serving time. The other one is still at large. This is a common occurrence, as some farmers seem to feel it is of no use to report losses after property is gone."

E. M. Harris, Prosecuting Attorney of Ogemaw County, recites negligent cases as follows: "As a public officer and citizen, am very much pleased that you are taking the step you have in this Farm Property Protection Service. You have hit the nail on the head when you so designate as the greatest failure of justice is the negligence of reporting cases to officers. The farmer as a rule forgets that he or his neighbor has phone connections with this office, and rather waits to talk the matter over with his wife or neighbors before reporting losses. Hence in these days of rapid transit, the parties who have robbed him may have driven out of the state before

stolen and it was twenty-four hours before I was notified. I got busy, secured good evidence as to who stole them, but the thief had time to dispose of the property, therefore, the evidence was gone. Had I been called in the morning, there would have been no trouble in convicting the thieves. Two years ago there was a case of the same nature, only the farmer got busy and reported the loss to me at once. Clues were secured and, even though the thief escaped, four months later he was located in Evert, Washington."

Charles I. Crawford, Sheriff of Cheboygan County, says: "The farmers are awfully slack in reporting to my office any thievery, where, if they would report at once, we would have a chance to round up the intruder and give the farmers the protection they are entitled to. My office stands ready at all times to protect our people. I will say further, anything that you can do to bring our farmers protection will be greatly appreciated by this office."

Colonel Earl H. Kerr, Sheriff of Hillsdale County, writes: "I want you to feel that I appreciate your cooperation very much and in return will do everything in my power to stop larceny and help the farmer in his unequal battle against crooks. My observation is that this class of criminal

# The Charles William Stores Inc.

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#### Women's Coats

All Wool Plaid Sport Coat, Fur Collar. (Page 2.) Each...\$14.98  
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Full Fashioned Silk Stocking, Chiffon Weight. "Knit to Fit." (Page 113.) Pair...98c  
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Boys' All Wool Three-piece "Longie" Suits. (P. 225.)...\$5.98

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Tapestry Brussels Rugs. 9x12 ft. Size. (Page 310.)...\$14.65

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A Complete 6-Tube Radio Set (Inside Back Cover) only...\$59.85

#### Incubators

Improved Incubators, 150 Egg Capacity. (Page 384.) Ea...\$16.50

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**T**HE exception-ally rugged construction of Grand Detour Tractor Disk Harrows has been proved beyond question. It would amaze you to see the excellent condition of these harrows after many years of gruelling work.

A Grand Detour user in Wyoming writes of the Tractor "B" Disk Harrow, "It is satisfactory in every way. It is clean cutting and has ample clearance and consequently does not gather trash." Here are some other reasons why this harrow is so satisfactory:

- ① Rear gangs are slightly off-set—no clogging of trash and no ridges left behind the harrow, either on the straightaway or turns.
- ② Equipped with electrically heat-treated disks—which wear and

keep their sharp edges several times as long as ordinary disks.

- ③ Extra heavy 1 1/2-inch gang bolts.
- ④ Single lever control—no need to stop or back up to change angle of gangs.
- ⑤ Disk blades of special concavity for deep and easy penetration.

The Grand Detour Horse-Drawn Disk Harrow can be quickly and easily changed into a tractor harrow by attaching two rear sections and a special tractor hitch.

Get the facts on Grand Detour Harrows and other tillage tools before you buy—mail coupon for attractive, interesting literature. And see your Grand Detour dealer

**J. I. Case Threshing Machine Co., Inc.**  
Dixon, Ill. Grand Detour Plow Division Established 1837 Racine, Wis.

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Tractor and Horse-Drawn  
TILLAGE IMPLEMENTS

J. I. Case Threshing Machine Company, Inc.,  
Racine, Wis.

Please send me free literature on implements I have checked. (If interested in others not listed, write them on margin of page.)

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Address \_\_\_\_\_

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Notice: We want the public to know that our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Co.

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In just five minutes a Diamond Wood Saw Unit can be attached to your Fordson, 10-20 International, or John Deere Tractor and you have a complete rig for sawing any sized material from sticks to logs. Aneasy way to set your tractor to money-making during the winter months. Saw for yourself and your neighbors! "70 cords in 10 hours"—this is one user's record. The Diamond Wood Saw Unit has no rival for speed and ease of operation. Write for illustrated circular today! Ask about our line of Feed Grinders and Corn Shellers!

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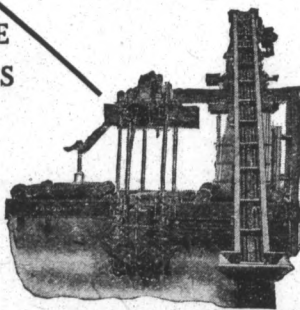
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New FREE book quotes Reduced Factory Prices. 5-Year Guarantee. Send on Stoves, Ranges, Furnaces, 200 styles and sizes. Beautiful porcelain enamel ranges and combination gas and coal ranges. Mahogany porcelain enamel heating stoves. Cash or easy terms. 24-hr. shipments. 30-day free trial. 360-day test. Satisfaction guaranteed. 26 years in business. 650,000 customers. Write today for FREE book.

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**SQUEEZE  
DOLLARS  
FROM  
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**Cider Press**

**PREPARE NOW TO TURN CULLS  
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Apple Growers in your community will keep the press busy through the entire season and you will have a profitable income each year. Built in sizes up to 400 barrels of cider per day—for Roadside Marketing, the Individual Orchardist and Custom Pressing. New Catalog No. 126 just off the press. Write today and learn how a small investment will reward you handsomely.

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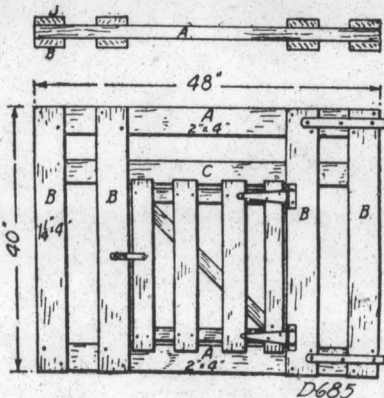
## THE HANDY MAN'S CORNER

### THREE-IN-ONE SERVICE GATE

**I** RECENTLY made a handy gate for use at the barn and as I have found it so very satisfactory, thought your readers would also be interested in it. I call it the 'Utility or Three-In-One Service Gate. When used as shown, it is a plain slat or summer gate. When the small gate is opened, it makes a fine creep for hogs and sheep and will at the same time exclude larger animals from the barn. As the opening for the small gate is the same width of my loading chute, it makes an ideal arrangement for loading hogs and sheep. One man can load about as fast as the hogs can

it must be washed first, let it stand for several hours or over night. When it is dry, brush over the surface a very light coat of melted paraffin, then iron in, with a warm iron, all the paraffin the linoleum will absorb. If some paraffin remains on the surface, quickly wipe it up with a soft cloth before the wax hardens. When the wax has cooled a trifle, coat it with a good spar varnish. The unvarnished side of the linoleum should be cemented to the table top with waterproof glue or cement that is used for cementing linoleum to floors.

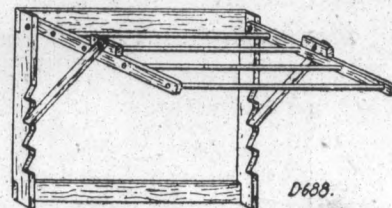
Baked enamel and enameled sheet steel covers are now available in many sizes, but are somewhat more expensive in first cost.—I. D.



### FOLDING CLOTHES DRYING RACK

**A**NY farm boy can make this folding clothes drying rack, as shown in the diagram. Get some broom handles, some 1 by 2-inch lumber in 3 and 4-foot lengths, four small bolts about 2 1/4 inches long, a few screws and nails, hammer, saw, and a brace and 3/4-inch bit to enter ends of broom handles into the two side bars. The method of construction is evident from the diagram.

We have two of these racks near our kitchen range where there is about six feet of clear wall space. They sure come in handy every day to dry children's clothes and small articles that we do not wish to put on the line. They are out of the way and out of children's reach. Also, on stormy days the family wash can be dried in a day. The higher up on the wall the rack is placed, the quicker



Folding Clothes Drying Rack—

the clothes will dry. When in highest position, the bars are above one's head to avoid bumping, and when lowered it is very convenient to place on and take off clothes.

A few screws at the top will hold it securely to wall. It is always there and ready, but out of the way. If properly made with offsetting bolts as shown in drawing, it will fold flat against the wall.—J. F. Seichter.

### WOODLOT IMPROVEMENTS IN WINTER

**M**OST forestry experts agree that winter is the most suitable time for improving the farm shelter belts and woodlots, since the farm owner has more time, timber is more easily handled, and it gives a chance for the horses to earn part of their winter board. Winter-cut logs are better than those cut in summer, since they season more evenly and are less damaged by insects.

The lumber should be looked upon as an annual crop, to be harvested by cutting out for lumber and fuel the trees that are fully matured and starting to deteriorate, diseased trees, dead and down ones, and those which are crowding out younger trees of more valuable species. The second growth coming on should be carefully watched and all poor trees removed which are preventing more valuable ones from growing.

In some places the good new growth may be too thick and in other places too thin, and some resetting of very small trees may be advisable.

### WORKTABLE COVERS

**V**ARIOUS materials are available as covers for the kitchen worktable. The New York State College of Home Economics states that oilcloth, a material often used for such covers, is easy to wash and not expensive, but does not last long and is quickly spoiled by heat. A smooth wood top is not hurt by hot dishes, but it is difficult to keep clean. Zinc, although good in most respects, is easily stained by acids.

Linoleum which matches the floor not only helps make the kitchen attractive, but it has many practical advantages besides. It is a good surface to use for cutting bread and is not harmed by moisture or hot dishes. Moreover, it is a quiet surface on which to work, and it is easily kept clean.

A linoleum table cover should be made with care. To begin with, the linoleum should be clean and dry. If

# OUTSTANDING MEN in Farm Life Everywhere Prefer the LEE WHIZIT =

## Why?



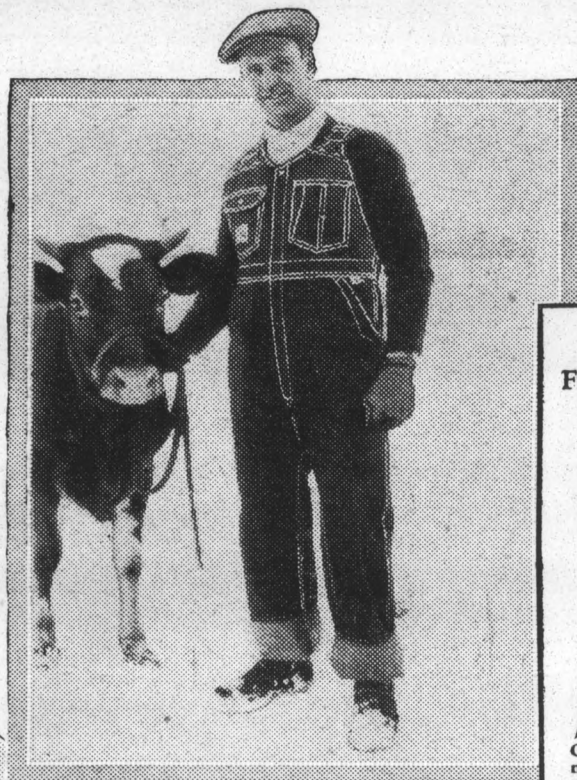
Orrie Kirkpatrick of Kirkpatrick Bros., proprietors of Hillside Stock Farm, Reedsburg, Wis., pure bred Holsteins.

1 Whizit-Open! Whizit-Shut!  
No Buttons to Bother

2 Famous Special Weave, Easy  
Washing, Lee Fabrics

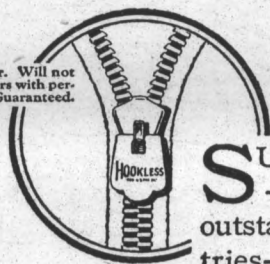


Earl V. Bruington, Cameron, Ill., owner Brookside Ruth 7th (#1,307,370), 1st prize 3 year old Milking Shorthorn, American Royal Show in 1927. Also 1st prize 2 year old, 1926.



Stuart McLeod, Glenelg Farm, Goodridge, Minn. President, Red River Valley Dairy-men's Association. Breeder of pure bred Guernseys.

Genuine Hookless Fastener. Will not jam, rust or break. Launderers with perfect safety. Absolutely Guaranteed.



**S**UCCESSFUL men everywhere—farmers, famous engineers and outstanding individuals in all industries—wear these handy buttonless work suits. For instance, seven of the ten winning national cornhuskers wear the famous Lee Whizit—a nice majority.

The Whizit means no buttons to bother—to come off—to sew on. Just slip it on—pull up the Whizit—and presto! you're ready for work!

The famous Lee fabrics, with their special weaves, are strong, durable and wash more easily, keeping color and shape through months of hard service. The Whizit is a real man's

work suit, keen looking, roomy and comfortable.

Lee dealers, carrying both Whizit and button style garments are in every city and almost every town, village and hamlet in the United States. Slip on a Whizit at your dealer's—you'll like it.

Lee Union-Alls, Overalls, Play Suits  
Are Made in Clean, Light, Airy Factories by Hundreds of Union Employees

THE H. D. LEE MERCANTILE COMPANY  
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Minneapolis, Minn. Salina, Kans. San Francisco, Calif.

**THIS GUARANTEE WITH EVERY GARMENT**  
If you do not find this to be the most satisfactory and best value-giving work garment you have ever worn, you can get a new one free or your money back.



"Just Like Dad's"

Seven of the  
First Ten Winners  
in the National  
Cornhusking  
Contest Wear  
the Famous Lee  
Whizit



Orville Chase - Wetmore, Kans. - Champion of Kansas - 8th in national contest.



Valerius Altermatt - 2nd in Minnesota - 7th in national contest.



George Dickinson - Steamboat Rock, Iowa - 2nd in Iowa - 5th in national contest.



Joe Korte - Petersburg, Neb. - 2nd in Nebraska - 6th in national contest.



Harold Holmes - Woodhull, Ill. - Champion of Illinois - 4th in national contest.



Houston Franks - Erie, Illinois - 2nd in Illinois - 10th in national contest.



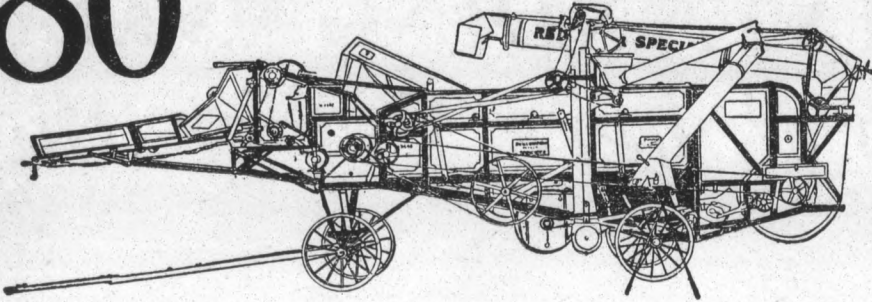
Charles Budd - Mishawaka, Ind. - Champion of Indiana - 9th in national contest.

# Lee WHIZIT

UNION  
MADE

Union-Alls-Overalls-Play Suits

# 80 Successful Years



and now

the finest, fastest, cleanest  
**thresher**

**THE  
Red River  
Special  
Line  
for 1928**

**Threshers**  
22x36  
28x48  
30x52  
32x56  
36x60

**Tractors**  
N & S  
Lauson Built  
20-35  
20-40

**Nichols &  
Shepard  
Corn  
Picker  
—Husker**

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15' cut  
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Prairie Type

**Nichols &  
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Steam  
Engines**

The 1928 Red River Special Line represents the result of 80 years of continuous building of Threshing Machines by the Nichols & Shepard Company.

Only by keeping faith with the farmers and threshermen of America has it been possible for this company to grow from a small blacksmith shop in 1848 to its present great factory with branch houses in every grain growing center.

And what a machine this year's machine is!

The finest, fastest, cleanest thresher ever offered to agricultural America. Hyatt Roller Bearings at every main bearing point — Alemite-Zerk Lubrication — a great new feature, Weatherproof Fiber Pulleys on every high speed drive, Armco Ingot Iron in all sheet metal parts, Bridge Truss Construction, French & Hecht Wheels, all in a thresher built around the famous 4 Threshermen.

These famous 4 Threshermen, The Big Cylinder, the Man Behind the Gun, the Beating Shakers, and the Steel Winged Beater are the greatest combination ever devised for getting the grain from the straw.

You will find the whole story in our new book, "The Finest, Fastest, Cleanest Thresher," that we will gladly send to anyone interested. Send the coupon for your copy.



**NICHOLS & SHEPARD**  
COMPANY

In Continuous Business Since 1843

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Please send me the book: "The Finest, Fastest, Cleanest Thresher."

Name \_\_\_\_\_ R. F. D. \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
My tractor is a \_\_\_\_\_ size \_\_\_\_\_ make \_\_\_\_\_

**The RED RIVER SPECIAL Line**

## WANTED---Five Men

Address Dept. C, Michigan Farmer, Detroit, Mich.

# FLORIDA

## INVITES YOU



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Under the Lodging Certificate Plan, you can stop at our best hotels, 40 Nights \$50.25—20 Nights \$25.25—10 Nights \$12.75 Live and bask in Florida's sunshine for less than it will cost you to live and keep warm at home. Buy Lodging Certificate Books in your city from Seaboard Railway Ticket Office, "Ask Mr. Foster" and other Travel Bureaus, and American Auto Association and affiliated clubs, or write

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**TRAVEL BUREAU**

LYNCH BUILDING JACKSONVILLE, FLORIDA

JOHN W. MARTIN, President  
Governor of Florida

JERRY W. CARTER, Executive V-President  
State Hotel Commissioner

### LIME NEARLY DOUBLED SEED PRODUCTION

IN the fall of 1925, Jacob Paul limed ten acres in a seventeen-acre field, applying two tons per acre at a cost of seven dollars per acre. He seeded it to clover in the spring of 1926, securing a fairly good stand on the entire field. He did not pay much attention to the clover until he cut the hay crop in 1927 when he cut one-third more hay from the limed land.

But his biggest surprise came when he cut the clover seed. On the seven acres of unlimed land he threshed fourteen bushels of seed or at the rate of two bushels per acre. On the ten acres of limed land, he threshed thirty-four bushels or three and four-tenths bushels per acre, an increase of one and four-tenths bushels per acre, which at the selling price of sixteen dollars per bushel is \$22.40 per acre value of increase on the limed land. Mr. Paul bought enough lime last fall for the other seven acres.

### WINNERS AT FARMERS' WEEK

THE following is the list of winners in the weight, value, and production estimating contest held by the Animal Husbandry Department of the Michigan State College: Horses—Howard Laycock, Mason; Dairy Cattle—Howard Laycock, Mason; Beef Cattle—A. G. Bottomley, Armada; Sheep—August T. Schroeder, Auburn; Hogs—Louisa Schubel of Port Austin, Mich.

### SUGAR BEET TRAIN

THROUGH the cooperation of the Michigan State College and the New York Central Lines, a sugar beet train will be conducted in Michigan from March 5 to March 17. The purpose of the train is to assist Michigan farmers in producing a larger tonnage of sugar beets per acre. Profits come in the production of high yields. Soils will be tested, experimental data presented with respect to fertilizers, depths of plowing, time and methods of planting, thinning, spacing, cultivation, and crop rotations. The following schedule will be followed. All meetings will be held on eastern standard time. At each stop the train will be available for inspection at the hours mentioned:

Mason, Monday, March 5, 2:30 P. M. to 6:00 P. M.  
Charlotte, Tuesday, March 6, 9:15 A. M. to 12:00 Noon.  
Eaton Rapids, Tuesday, March 6, 2:00 P. M. to 6:00 P. M.  
Chesaning, Wednesday, March 7, 9:15 A. M. to 12:30 P. M.  
Owosso, Wednesday, March 7, 2:00 P. M. to 6:00 P. M.  
Laingsburg, Wednesday, March 7, 7:00 P. M. to 10:00 P. M.  
St. Charles, Thursday, March 8, 9:30 A. M. to 12:00 Noon.  
Saginaw (Gen. St.) Thursday, March 8, 2:00 P. M. to 6:00 P. M.  
Auburn, Friday, March 9, 9:00 A. M. to 12:00 Noon.  
Midland, Friday, March 9, 2:00 P. M. to 6:00 P. M.  
Standish, Saturday, March 10, 9:30 A. M. to 12:30 P. M.  
Pinconning, Saturday, March 10, 1:30 P. M. to 5:00 P. M.  
Mt. Forest, Monday, March 12, 9:30 A. M. to 12:00 Noon.  
Bay City, Monday, March 12, 1:30 P. M. to 6:00 P. M.  
Munger, Tuesday, March 13, 9:00 A. M. to 12:00 Noon.  
Reese, Tuesday, March 13, 1:00 P. M. to 4:00 P. M.  
Richville, Tuesday, March 13, 7:00 P. M. to 10:00 P. M.  
Ashmore, Wednesday, March 14, 10:00 A. M. to 1:00 P. M.  
Owendale, Wednesday, March 14, 2:00 P. M. to 5:00 P. M.  
Vassar, Wednesday, March 14, 7:30 P. M. to 10:30 P. M.  
Vassar, Thursday, March 15, 9:00 A. M. to 11:00 A. M.  
Caro, Thursday, March 15, 1:00 P. M. to 5:00 P. M.  
Blissfield, Friday, March 16, 9:00 A. M. to 1:00 P. M.  
Ottawa Lake, Friday, March 16, 3:00 P. M. to 10:00 P. M.  
Deerfield, Saturday, March 17, 9:30 A. M. to 12:30 P. M.  
Monroe, Saturday, March 17, 2:00 P. M. to 6:00 P. M.



## Kill Rats Without Poison

**A New Exterminator that is Absolutely Safe to use Anywhere!**

Will not injure human beings, livestock, dogs, cats, poultry, yet is deadly to rats and mice every time.

**Poisons are too dangerous**

K-R-O does not contain arsenic, phosphorus, barium carbonate or any deadly poison. Made of powdered squill as recommended by the U.S. Dept. of Agriculture in their latest bulletin on "Rat Control."

"Never saw anything work like it did. We are ordering from our Wholesaler in our next order. It is not necessary to say that we are pushing K-R-O." Huey's Pharmacy, Sardinia, Ohio.

75c at your druggist; large size (four times as much) \$2.00. Sent postpaid direct from us if dealer cannot supply you. **Sold on money-back guarantee.** The K-R-O Co., Springfield, Ohio.

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**KILLS-RATS-ONLY**

**Hoosier FARM NECESSITIES**

SILOS—Your choice of HOOSIER Glazed Tile or INDIANA Wood Silos. The world standard. BUILDING TILE—Glazed or Mat finish. For all permanent buildings. Beautiful, permanent, and economical. BROODERS—HOOSIER round wood Brooders, scientifically designed for sanitation, ventilation and heat conservation. Get our prices. Dealers wanted. Big opportunity.

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Bldg. Tile & Silo Co.  
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**INDIANA SILO**

**The NATCO HOLLOW TILE SILO**  
HOW TO ERECT IT

**Send for Free Silo Book**

TELLS YOU IN PICTURES ABOUT THE ROT PROOF STORM PROOF PERMANENT ATTRACTIVE NATCO HOLLOW TILE SILO

NATIONAL FIRE-PROOFING COMPANY  
FULTON BLDG. PITTSBURGH PA.

**BOWSHER Crush Grind Feed Mills Mix**

Rapidly crush ear corn (with or without husk) and grind all the small grains; either separately or mixed—mixed as they are being ground—not before or after. This saves time and labor.

**"Combination" Mills**  
Use the famous Cone-Shape burrs. Light Draft. Large Capacity. Solidly Built. Long Life. 10 sizes—5 to 175 bus. per hour. Handy to operate.

Sacking or Wagon Box Elevator furnished. Circular Free

The D. N. P. Bowsher Co., South Bend, Ind.

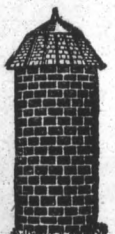
### WE WANT FARMER-AGENTS

Get our proposition on the celebrated

## B. V. T. SILO

Made of vitrified fire clay by one of the largest established silo companies. You profit by purchasing AT DEALER'S COST. Write for details.

**BRAZIL HOLLOW BRICK AND TILE COMPANY**  
Brazil, Indiana



# ALSIKE \$4.50

**AND TIMOTHY**  
45 lbs. Bags extra 25c each, 20 per cent clover.  
The George W. Young Company, Owosso, Mich.

WOODEN BEAMS COMPARED  
WITH I-BEAM

Expect to build a barn next spring and would like to know if a steel I-beam eight inches high and four inches wide would be as strong as a wooden beam eight inches square. My barn is 40 feet wide and the joists run crosswise of the barn. Would these I-beams be suitable to run lengthwise under the joists? How far apart under the I-beams should I put the four-inch iron supporting posts?—

The safe uniformly distributed load for a standard 8-inch steel I-beam of light weight 17½ lbs. to the foot is about 16,000 lbs. for a 10-foot span and about 13,000 lbs. for a 12-foot span. For the heavier weight (25½ lbs. to the foot) the safe loads are 18,200 lbs. for 10-foot and 15,200 lbs. for 12-foot span. For an 8 by 8 wooden beam of average white pine, spruce, or fir is about 4,000 lbs. for 10-foot span and about 3,300 pounds for 12-foot span.

Assuming that you will have your joists of 10-foot span and thus have these beams running lengthwise and assuming a total load of floor and hay load of 75 lbs. per square foot, this would make a total load of 750 lbs. per foot length of I-beam. Even with the lighter I-beam, a 12-foot span would give a load of only 9,000 lbs., where as the safe load is 13,000 lbs. If desired the span could be made 14 feet and still be within the limits of safety.—D.

## COUNTY AGENT GIVES ADVICE

(Continued from page 255)  
plies those needs. Always buy your fertilizer according to the analysis which is printed on the bag."

"How do I know that their analysis is correct? Don't you suppose the fertilizer companies print whatever they want on the bag," asked the cautious farmer.

"You're wrong again, Chris. The state law requires the companies to put the correct analysis on every package of fertilizer, and furthermore the state chemist has inspectors who sample shipments of fertilizer in all parts of the state. These samples are analyzed to make sure that their plant food content is as guaranteed."

"I see. The state protects us farmers in buying fertilizer and makes sure we get what we pay for. Here's something else I don't understand though, our dealer offered to sell me two grades of fertilizer, one for around thirty dollars and the other at forty dollars a ton, he claimed they were both complete fertilizers. Now what's the use of my paying forty dollars for fertilizer when I can get one for thirty dollars?"

"The difference lies in the analysis again," explained the county agent. "The forty dollar grade undoubtedly contains a much higher percentage of plant food, in fact it may contain twice as much."

"You surely don't mean that a forty dollar fertilizer may contain twice as much plant food as one that sells for thirty dollars."

"Exactly that," insisted Dick. "You see there is a general or overhead charge for mixing, bagging, handling, shipping, etc., made against each ton of fertilizer. This amounts to quite a percentage of the cost of the thirty dollar fertilizer, what is left pays for plant food. But for ten dollars more the company can put in a lot of plant food. It is always cheaper to buy the highest analysis fertilizer that fits the needs of your soil and then apply less per acre."

"I can see that easy enough. Now here is this cornfield. I want to know what kind of fertilizer to use, how much per acre, and how to apply it. And while you are here, I wish you would tell me how to increase the humus content of this soil."

The belief that stars can be seen in the daytime by looking down a deep well is untrue.

It Buries All the Trash and  
GETS THE CORN BORER

EXPERIENCE has shown that clean plowing is the most practical and economical control measure for the European Corn Borer. However, every particle of field refuse must be buried; not one piece of stalk or trash can be left on the plowed ground. But this is just

good farming—a sound practice for every farm.

"Plowed the heaviest growth of standing stalks under so that all fields passed Government inspection. None of the farmers had to hand-pick a single piece of stalk or trash." \*\* Take the Oliver 18-inch Big Base Plow into your heaviest stalks and see how it covers every particle of trash. It pulverizes the furrow slice nicely and your fields are easier to cultivate. The difference in the work of these plows and the average plow is so striking that farmers throughout the corn-producing states are rapidly adopting the Oliver 18-inch Big Base as standard equipment on their farms.

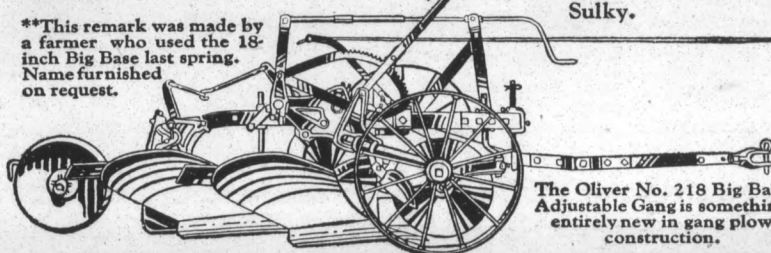
Furnished as Gang  
or Sulky Plow

Whether you have a small or large tractor you can own an Oliver 18-inch Big Base Plow that is practical to operate on your farm. The Big Base Sulky is ideal for the lighter weight tractors; the New No. 218 Big Base Gang for the larger tractors. The 18-inch Big Base can also be had on a horse-drawn sulky. With the new interchangeable mouldboard this base is well suited to both stubble and sod plowing.

Free Booklet on European Corn  
Borer Control

Write for our new literature on the Corn Borer. Learn about its life cycle and the best control methods.

\*\*This remark was made by a farmer who used the 18-inch Big Base last spring. Name furnished on request.

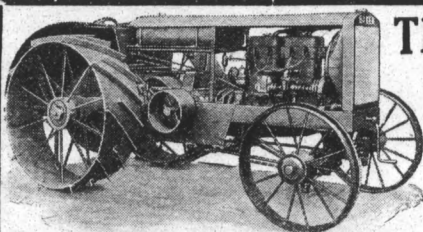


The Oliver No. 218 Big Base Adjustable Gang is something entirely new in gang plow construction.

When it comes to quality plowing the base is the most important part of the plow. Unless the base is right you cannot hope to do a real job of plowing. In the Oliver No. 218 Big Base Gang the designers have not only built the base right, but they have built into the general design a clearance or capacity for trash heretofore found only in the Oliver Big Base Sulky.

OLIVER  
OLIVER CHILLED PLOW WORKS  
"Plowmakers for the World"

GENERAL OFFICE and WORKS, SOUTH BEND, INDIANA



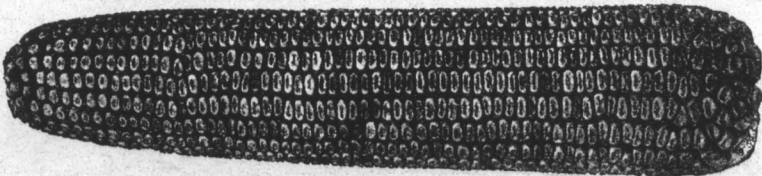
## The Baker Gas Tractor

Two Sizes 22-40 and 25-50

The tractor with the answer. Strong substantial frame. Heavy Duty Foot Transmission. The harder the tractor pulls the closer it hugs the ground due to special draw bar hitch. The purchase price of a Baker is not an indebtedness, only an investment. Moderately priced. Terms fair. Visit our factory. You are welcome.

Complete Tractor and Thresher Catalogs Free

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Clement's White Cap Yellow Dent, Picketts Yellow Dent and Michigan Yellow Dent (a very early dent), Certified Worthy Oats, Two-Row Barley and Sweet Clover Seed.

Why take a chance on common seed when our scientific method of drying and preparing our corn insures germination and vigor. Write for Circular and Sample.

PAUL C. CLEMENT, - Britton, Mich., Dept. B

Member of the Crop Improvement Association.

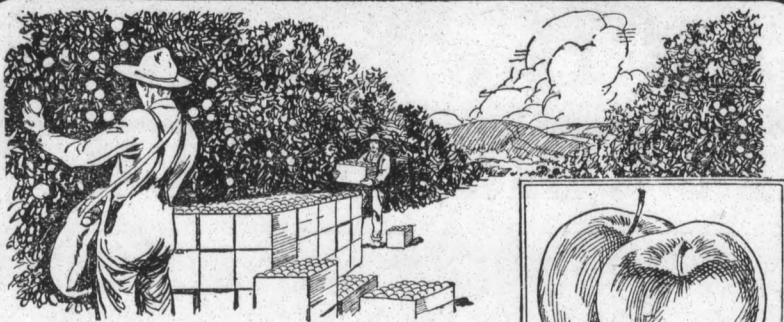
## OATS

**SENSATION** One of the most productive oats in cultivation. 75 bu. and upward per acre are frequent with large white meaty grains weighing 44-46 lbs. per measured bu. of the highest quality. We are making an exceptionally low price in quantities. You should by all means try these oats. **SEED CORN** Early Clarage and White Cap. Excellent yielders and never fail to ripen. Choice seed as low as \$2.75 bu. Also barley, grass seed, soy beans, etc. Write for circular and samples. Theo. Burt & Sons 45 Melrose, O.

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GRASS SEED

Highest Quality at Wholesale Prices. Don't fail to write for our special prices and samples. We have real bargains. Recleaned, tested Timothy \$1.95 per bu.; Sweet Clover, unhusked, \$1.95; Alsike (10 to 15%) and Timothy \$3.75; Alfalfa \$10.00; Sudan, \$2.75; Rape \$4.00; Hulled Sweet Clover \$4.50; Billion \$ Grass \$2.00; Soy Beans \$2.50. Have highest quality Red Clover \$2.00 to \$3.00 per bu. under most dealers' prices and other Farm Seeds correspondingly cheap. We specialize on Field Seeds and are located to save you money and give quick service. We buy from producer and sell direct to consumer at lowest prices. All seeds sold subject to state or government test under an absolute money-back guarantee. Send today for free samples and big money-saving Seed Guide. American Field Seed Co., Dept. 631 Chicago, Ill.



## Doubles Yield

and nets \$233.50 extra profit

HERE'S the story of what Arcadian Sulphate of Ammonia accomplished for Mr. A. J. Marble, of Omro, Wisconsin:

Mr. Marble divided part of his 75-year old apple orchard into two equal plots. Plot No. 1 received no fertilization. Plot No. 2 received Sulphate of Ammonia at the rate of 200 lbs. per acre.

The results of the fertilizer were noticeable almost at once. "The leaves of the trees seemed deeper green," says Mr. Marble, "and they stayed on the trees longer."

But harvest time gave the complete result. From Plot No. 1 (which received no fertilizer) Mr. Marble gathered 200 bushels of apples per acre. From Plot

No. 2 (Sulphate of Ammonia) he harvested 440 bushels—a gain of 240 bushels due to Sulphate of Ammonia.

At current prices Mr. Marble's increased yield represented a net gain of \$233.50 per acre—over and above the cost of the fertilizer.

Small wonder that Mr. Marble writes us that he is well satisfied with the results from Arcadian Sulphate of Ammonia.

The *Barrett* Company  
Agricultural Dept.

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Results PROVE the availability of the nitrogen in

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(Write names of crops on line above)  
and wish you to send me bulletins on these subjects.

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**SELECTED TREES AND PLANTS**  
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# ORCHARD AND GARDEN

## MY VEGETABLE GARDEN

NOW that is an interesting subject. To begin with, I plan what I wish to have and buy my seeds of a reliable seedsman. I found to my sorrow that cheap seeds are very expensive in the end. Out of two beautifully colored packets of onion seeds I got one onion.

I am not able to have a hotbed so I start my seeds in the house. Peppers are sown about March 15 and tomatoes and early cabbage about two weeks later. Later cabbage I sow in the hills where I want them to stand and any surplus plants are pulled out. There are only two of us so we need only a few plants. I use small boxes or pans for tomatoes and peppers. The peppers are moved into a larger box when the fourth or fifth true leaves come. Then I sow seed for later peppers.

When tomatoes get three or four true leaves I transplant them into pots from which they can be removed later without disturbing the well watered roots one bit. I find it an excellent plan to wrap the stems with heavy paper when setting them into the garden as a precaution against cutworms. I set them an inch or two deeper than they were in the pots. By setting the pots in baskets it is not troublesome to move them onto the porch to get the benefit of the sun and air and take them in at night.

The cabbage I sow in a box large enough to hold it until I want to put it in the garden. As soon as I dare, and that is pretty early as I have a south porch, I set the box outdoors. I have cabbage to use in July—fine, solid heads. All these early seeds are started behind the stove where the necessary heat from quick germination is to be had. When they come up, they are moved to a window. For awhile they are set by the stove at night to prevent chilling. Celery and cauliflower do not do well here and we don't care for eggplant. A few hills of melons and cucumbers may be started in berry boxes for early fruiting.

When the "good man" gets some fine, well rotted manure, he spreads it on the garden. Then it is plowed and harrowed well and is ready to plant. I use three kinds of peas, early, medium, and late, and sow them all at once. I do the same with sweet corn and so have a succession. I always plant a few beans when I put in the early garden and usually succeed in raising part of them. I make three plantings of wax beans about three weeks apart. Carrots, kohlrabi, beets, parsnips, salsify, and onion seed I sow but once, pulling out the largest to use and so having little thinning to do. I put in sets for early onions. Swiss chard cannot be beaten for greens and spinach is real food. For relish and sandwich filling mustard and upland cress are unsurpassed. Lettuce and radishes must be sown several times depending on the season. I use a hand cultivator to keep the weeds down and make a dust mulch. I never water my garden. From June 15 we are living on the garden and there is always plenty canned for winter. And what a joy that garden is through the whole year.—Mrs. Florence L. Saunders.

## GLENWOOD FARM GARDEN NOTES

AS our greenhouse and plant beds are in a sheltered location enclosed by timber, rabbits are a real nuisance during the early growth of the vegetable plants. Last spring considerable damage was also done in a field of newly set cabbage, also lo-

cated in an enclosed garden. We vowed at the time that we would surely take measures to eliminate the pest or at least lessen its numbers. This winter we are proceeding to do so by trapping the rabbits. While it will be impossible to get them all, believe me, the numbers will surely be less!

There is a secondary consideration also a by-product, so to speak. I wasn't aware that rabbit meat was just about as good as chicken. Parboiled by pouring on boiling water and leaving the meat in three or four minutes. Then add a pinch of soda shake or stir, drain, then cook as to choice. The specimens we are getting run about two pounds each ready for the kettle. At beef and pork prices in our market, the rabbits are worth thirty to forty cents each. At chicken prices considerable more which is something. But, as I said, this is a secondary consideration in the present venture.—M. N. E.

## SOME PEACH GROWING OBSERVATIONS

(Continued from page 255)

The next variety in period of ripening is a comparatively new one, being the Rochester. This is a hardy sort, inclined to bear heavily. Must be severely thinned in order to secure fruit of good size. It is meeting with favor from the buyers' standpoint and in many localities may be planted quite liberally.

Overlapping the latter part of the ripening season of the Rochester, we have the South Haven. This is ordinarily a period of the year that has not been well supplied with peaches from any source, and the few reaching the market during this time generally command about the best price for the year. It is very hardy in the bud, while possibly not so resistant as some in the wood. Bearing begins when the tree is very young and seems to be continuous. The fruit is invariably large and very uniform in size. We have a five year old block of this variety, consisting of one hundred and fifty trees, that has now produced over seven hundred bushels of fruit. These have been sold for an average price of better than two dollars per bushel at the farm. This is not phenomenal but is so much better than the record the average variety produces at this age that it is worth mentioning. I am informed that in some localities this variety has not proved to be equal to some others.

The Prolific continues as a standard variety following the South Haven in season. Unless good care is given the fruit will be small and the trees are inclined to overbear. As it reaches into the Elberta season there is often a serious sacrifice in price due to the conflict. However there seems to be a growing demand for this peach and during the past season, a certain trade demanded it at a premium above the Elberta.

Little need be said in regard to the Elberta as it holds a preeminent place in peach history. Many markets fail to recognize any other variety, judging by price standards. The majority of consumers that visit the farm to make a purchase do not want this peach. Ordinarily it is picked too green for real quality to be developed. If allowed to ripen it has a flavor that is difficult to equal. This is especially true when canned by the cold pack method.

Probably one-third to one-half of every planting should consist of this variety. It is the one peach in the southern part of Western Michigan, but toward the northern part it is evidently far surpassed by others. Ripening with the Elberta, but oc-

cupping a position that it may be picked before or after, is the J. H. Hale. From the standpoint of size, beauty, and price this surpasses any other; but in several other respects it is far outclassed. The tree is slow growing and tender, subject to winter injury and of short life. It must be interplanted with other varieties of the same blossoming period in order to secure a set of fruit. But very few of the plantings of this variety in the state have been profitable. However, if you have never experimented with it, I would advise you to give it a small trial.

An old sort that is often inclined to bother in Elberta time is the Kalamazoo. Much more expensive to produce and harvest than the Elberta, smaller in size, and as a shipping peach, commanding considerable less per bushel. However, it is unexcelled for a canning peach, and consumers who know this are often willing to pay more for this variety than for the Elberta.

Another old peach that the consumers are bringing back into general favor is the Gold Drop. Always noted for its hardness, great productiveness, and excellent quality, yet inclined to be small in size, it is now demanded more than any other name when the housewife comes peach shopping. For three weeks before its season of ripening and two weeks after it is gone, the demand is evident.

Asking a certain grower what had been his most profitable peach over a period of years, he immediately said, "Banner." While this is a splendid peach, yet its greatest value is undoubtedly due to the fact that it largely has the market to itself and, oftentimes, people are just awakening to the condition that peaches are nearly gone and they have not secured their supply. It is another sort that does not obtain a satisfactory size if left to itself, but if properly cared for the resulting product will meet the requirements of most demands.

Lemon Free is another excellent kind of the late varieties. It does not appeal to the eye but is splendid under the skin. Very prolific under all conditions and always in demand by commercial canners it is a good peach to remember in selecting the varieties.

For a real late peach the Salway is still the favorite. We have found this to be a very profitable fruit as it always produces and the canners demand the product. It is not adapted to the individual engaged in growing a large quantity of apples as the harvest conflicts, but for the genuine peach grower it is very satisfactory.

Considerable interest is manifest in the new clingstone varieties that the canners are anxious to have produced. Some of these are being planted and we will await results of the next few years to determine the advisability of embarking in this new line of peach production, in order to meet the competition of California. The idea seems to have considerable merit, if a variety can be found that will produce sufficient fruit to make it profitable. It is evident that the individual producing these clings will be entirely at the mercy of the canners, as there will not be any other market for the product.

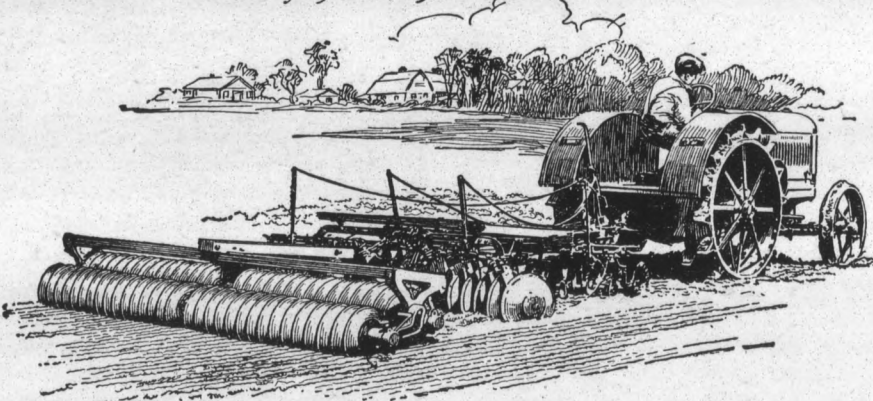
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Trees receiving five pounds of nitrogenous fertilizer, produced three times as much fruit as untreated trees in 1927. It is pointed out, however, that the results are for one season only.

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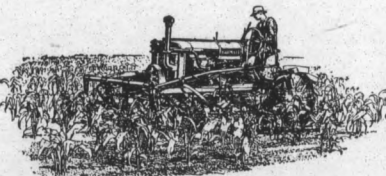
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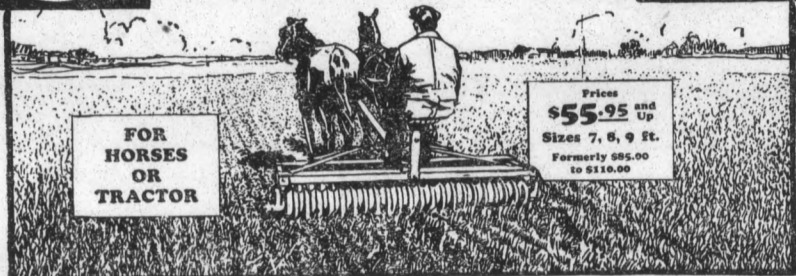
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COOPERATIVE BREEDING & HATCHING CO., Box 120, Tiro, O.

## Readers' Opinions

## THAT REMINDS ME

IN your issue of January 21 your correspondent, Mr. Angelo Gennara, says, "This doe was in my garden and through the farm all during the summer I stood the damage it did to see it." I like that sentiment.

The harm game does may be reduced to the vanishing point by feeding the game during the time when natural feed is scarce. A long experience in maintaining self feeders for the game and song birds has demonstrated to me that when the natural food is available the game and all wild life prefers it. We must remember that in many places in our state the cover and natural sources of food are becoming restricted and unless we evidence the spirit Mr. Gennara shows, soon we will not even have the remnant of our natural wild life which we have now.

As to whether the wild life appreciates provision made for it the fact that on a real winter day within the week we had assembled at one time within thirty feet of Mrs. Cook's east kitchen, window twenty-one quail, one cock pheasant, and one pair of Kentucky cardinals indicates that they do. Also we keep no dog or cat which adds to the confidence of the birds around our house. Last year we had a quail's nest within forty feet of our back steps and two pheasant nests within one hundred feet. We have seen no indication of strife between quail and pheasants.

We like the new trespass law very much and feel deeply indebted to the Michigan Farmer, Senator Horton, and others who made such an advanced step possible. We like the law just as it is, finding it easy of application and effective.

A few arrests and convictions has the same effect on hunters that the opening of the hunting season has on cock pheasants. Also we do not want to make the arrest. Just hand the warrant to a deputy and let him bring them in. It is safer as one is apt to come into contact with individuals with reckless and pugnacious dispositions and while a farmer is at a disadvantage in such a case a regular deputy sheriff is right in his natural element.

This law if enforced simply forces the hunter to do what ordinary rules of conduct in polite society should have lead him to do without any law. If we farmers do our part, the manners of the hunting fraternity will be greatly improved.—A. B. Cook.

## TAXES AND TRESPASS

I NOTICED the article of the Ingle-side Farm about taxes. Well, we all know the farmer is the goat at both ends and unless he is man enough to quote his own price, he will surely come out at the small end if the other party makes the price. What at lot of rot to think they will ever pass laws at Washington or anywhere else to help the farmers. Perhaps there will be a day when farmers will strike—perhaps get up a Coby's army.

Talk about trespass—I live at a small lake and the farm takes in all the east shore line. You will see the so-called sportsmen coming from all directions with fish poles, guns, and all kinds of contraptions, seemingly with their eyes shut until they get to the berry patch, peas, carrots, and everything that they can eat, and leave in its place tobacco cans, cigarette packs, old newspapers, and things too numerous to mention.—R. W. Redman.

Screws scraped with ordinary kitchen soap before they are put into hard wood will go in easily and will be as easily removed.

## Pine Tree Pete says—

"Good seed makes more work at harvest time."



but we like that kind of work

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If we're going to have crops, let's have good ones. It costs very little more, so far as the seed is concerned.

No matter what the crop is to be—Red Clover, Alsike, Alfalfa, Timothy—you can depend upon PINE TREE Seed.

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Egg contest winners for years. Guaranteed and insured. Also cockerels, pullets, hens. Catalog and special price bulletin free.  
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## The Platform Method

### A Sanitary Way of Raising Chicks

IN discussing the Pennsylvania platform method of raising chicks, Professor H. Kandel of State College, Pennsylvania, said that a poultryman must stand or fall on the ability to renew the flock successfully. They had three years of difficulty with disease in Pennsylvania and it reached a point where some breeders couldn't raise chickens. By the new method they have been able to produce chicks that live.

They use colony brooder houses, twelve by sixteen, which must be moved with a tractor as they are too heavy for horses. All of the openings are screened and a six by eight porch is built in front. The floor of the sun porch is made of concrete blocks. Flies are carefully excluded from the houses as the house fly is one of the intermediate hosts of the tape worm. Even a vestibule is constructed so the attendant can pass into the house without permitting flies to enter and a fly swatter is part of the equipment of each house.

The brooder houses are placed together and it saves a lot of walking in taking care of the chicks. About 330 chicks are placed in each house and fourteen houses occupied less than one-half acre. The scratch grain ration consisted of 2 parts yellow corn and 1 part wheat. The mash consisted of 700 pounds yellow corn meal, 100 pounds ground wheat, 200 pounds wheat bran, 250 pounds wheat middlings, 200 pounds dried milk, 200 pounds fish meal, 200 pounds alfalfa meal, 50 pounds bone meal, 20 pounds limestone grit, 20 pounds salt, and 20 pounds cod liver oil.

The cost of the mash was \$3.72 per 100 pounds. This is served cafeteria style. After the first eight weeks the dried milk in the mash is decreased to 100 pounds.

By this method the cost of raising 100 Barred Rock chicks to nineteen weeks of age was \$50.50 or about 50 cents per bird. The mortality rate was 3.73 per cent. They were found to eat 800 pounds of grain and 825 pounds of mash.

#### Amount of Feed

The amount of feed for 100 Leghorn chicks to nineteen weeks of age was 625 pounds of grain and 776 pounds of mash or a cost of \$45.76 per 100 chicks. The mortality rate was 7.05 per cent. The houses are cleaned every five days and clean litter added. The birds raised by this method have been found to stand up under heavy production as they have heavy meaty bodies and are not riddled by parasites. Their egg production to this date indicates the quality of the chicks.

The method has given a good opportunity for supervision and the keeping of an accurate check upon all the birds. There are no losses from hawks, crows, or rats. Accurate information is obtained on feed consumption as all the feed is weighed and fed in hoppers. There is no loss of mash due to wind or sparrows as often happens on the range. The platform method prevents the intermingling of different ages of poultry and makes it necessary to remove the cockerels at an early age. It tends to prevent thieving and makes sanitation easier.

The main advantage of the method is in the prevention of intestinal parasites. Flies and all bugs must be excluded as all the hosts of the tape worm are not known and even the snail is suspected of being a host. The above platform method is given because it has been a success in Pennsylvania under conditions where parasites were so serious that free range chicks could not be raised. It should be of some interest to Michigan poultrymen as a means of raising healthy

chicks if parasites become so serious that conditions are similar to the situation which existed in Pennsylvania.

#### BROODING EARLY CHICKS

ACCORDING to Prof. Card of the State College, it is easier to brood chicks in cold weather than in hot June weather. Chicks are injured more by overheating than by a little chilling. An age of five and one-half to six months is early enough for the pullets to lay. Some poultrymen are money ahead even if a lot of pullets moult if they have had good production from August first to November first.—R.

#### FARM FLOCK MANAGEMENT

ACCORDING to Leo Arnold, State College Extension Specialist, the farm flocks of today are much better



You may obtain a practical bulletin on raising baby chicks by sending a self-addressed stamped envelope to Michigan Farmer Poultry Dept.

than a few years ago and much has been accomplished through educational work in bulletins, lectures, and journals. Mr. Arnold believes that the future of the industry depends upon the farm flocks, and the farmer will dominate the poultry industry. The poultry specialist will have keener competition because of the large number of farmers increasing their sideline poultry flocks.

The market and personal preference determines the breed of poultry to keep. Leghorns are usually selected where eggs are the prime object. It often pays to raise the same breed as the neighbors in an effort to develop a uniform product in the neighborhood. Quality stock is now being emphasized and we have the opportunity of buying better stock than ever before.

Breeding work requires money, time, patience, and considerable skill. Trapnesting is also required as culling will never do what the trapnest does. It is often best to buy chicks when the farmer is busy and lacks time for the study of breeding problems. Poultrymen specializing in egg production can do a thorough job of culling by selling all the old stock each year and replacing them with pullets.

The old hens do not lay during the period of high prices. Their production is during the spring months. Even fine producing hens take forty to sixty days to get back into production after the fall moult. Early chicks hatched to begin production in October and November are the best paying proposition but birds should not be brought into production at four months of age. Normal growth is more or less slow and good bone development is needed to make the birds large, strong, and healthy. Small sized birds may lay small eggs and not prove consistent layers. The lack of good brooder houses often shows up in the fall

(Continued on page 279)

## This test proves



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are made of high-quality rubber—flexible, long-wearing. They have sturdy gray soles, uppers red or black—knee to hip lengths

## the quality of these "U.S." Blue Ribbon Boots

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The "U.S." Blue Ribbon Walrus

slips on right over your shoes. Its smooth rubber surface washes clean like a boot. Either red or black, 4 or 5 buckles



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**Insures  
Bigger  
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**2**

**Adds  
Fertility  
to Your  
Land**

**4**

**Increases  
Feeding  
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Crops**

**NOD-O-GEN INOCULATION**

Here is a 100 to 1 investment. Aside from its other benefits inoculation ensures the addition to your soil of large quantities of valuable nitrogen plant food. A dollar bottle of NOD-O-GEN will inoculate four acres of Alfalfa or Clover, resulting in the addition to the soil of 400 pounds of nitrogen from the air, which is equal to 2800 pounds of nitrate of soda worth \$100.00.

**NOD-O-GEN QUICK—SURE—EASY TO USE**

Every four-acre size bottle of NOD-O-GEN contains over 500 million live bacteria of the right kind for each crop. The patent stopper bottle and special food jelly provides air, moisture and food, keeping the bacteria alive and vigorous indefinitely. Buy your NOD-O-GEN inoculation now and be sure of having on hand when you are ready to sow. Easy to use—full directions on every bottle. And remember it keeps indefinitely.

NOD-O-GEN INOCULATION is produced in the soil laboratories of The Albert Dickinson Company, Chicago, and sold everywhere by dealers who handle Dickinson's "PINE TREE" Farm Seeds.

To left  
Inoculated  
Alfalfa

Below  
Not  
Inoculated

"The Sign of Good Crops"

## News and Views

From INGLESIDE FARM—By Stanley Powell

THE Ingleside sheepfold is vibrant once more with a dearly familiar sound. The plaintive cries of new-born lambs echo through the pens and stir within our hearts the reminiscent memories of many bygone springs. How marvelous are the wondrous works of God! Who teaches little lambs to bleat and find their mothers and their nourishment? Once in a while we wonder at something which goes wrong in connection with this complicated process of reproduction. How much more appropriate for us to marvel at those unseen forces and little-understood laws by which a new being comes into existence and grows into the image of its ancestors.

When my thoughts turn to these matters they often wonder on to many other features of the great Riddle of the Universe. Probably I am fortunate in that I have never been in the least troubled with any supposed conflict between modern science and religion. In fact, as far as I can ascertain, the most eminent scientists hold the greatest reverence for God and His creative and sustaining power.

While this is no place for a discussion of evolution, possibly I may be pardoned if I air my views to this extent. I do not see that complete belief in organic evolution removes the necessity for a belief in God or in any way belittles Him. It does not explain how anything could come from nothing, but is merely a hypothesis as to the process which God may have employed in bringing the universe up to its present complicated state. If He chose to create the myriads of living things in the sequence depicted in Genesis, but by the orderly process of evolution, it is no less marvelous than as though it were done in a brief period of time by divine fiat. The Source is the same and the Power is identical.

### Back of Creation—A Creator

Evolution may or may not have been the method which the Creator employed in his mighty work. Even though we accept it as a partial explanation of the development of the more complex from the more simple, this system of thought does not go back far enough to include a "self-starter." No scientist has ever demonstrated "spontaneous generation," that is producing life without having life to start with, and I'll hazard the guess that no mortal power will ever be able to make something out of nothing.

Inevitably our thoughts revert to those majestic words with which the Bible opens—"In the beginning God . . . ." No matter how far we go back in speculation or conjecture we come at last to the point impenetrable and incomprehensible where we too must say, "In the beginning God."

Those who find difficulty in accepting the doctrine of evolution might possibly see new light on the subject if they were to realize that the unborn lamb goes through practically all the stages which evolutionary scientists outline as tracing the development of animal life on this planet.

Some years ago I was privileged to take a course in embryology and to follow under the microscope and otherwise, the changes that occur from day to day as the fetus develops from a single-celled fertilized egg to a fully developed animal. Contem-

plating these mysteries, some scientist used three long words to voice a very remarkable contention. He said, "Ontogeny recapitulates phylogeny." In other words, each organism in the course of its individual development seems to go through all the stages which the exponents of evolution outline as having been the history of that particular species.

### Another Heifer Calf

You will be glad to know that our pure-bred, red roan Milking Shorthorn cow, "Lady Eleanor 3rd," who has been causing us not a little anxiety here at Ingleside during the past two or three weeks, has at last presented us with a splendid white heifer calf that was very much worth waiting for. It just arrived today. We expected her to freshen about the same time as "Welfare Marie 3rd," who produced her calf almost three weeks ago. Quite naturally we have been watching Lady Eleanor with a good deal of concern. In fact, I have trekked across the road to look at her around two A. M. for the last five nights and it will seem good to go to bed and not have the alarm clock disturb me but once during those brief but blessed hours which separate one day's work from another's.

These trips of exploration in the wee small hours of the night reveal several things of interest. I am always curious to see which cows and horses are lying down and which are standing and what the steers and young cattle are doing. One day we got our steer pen just half cleaned. We freshly bedded the portion from which we had removed the manure. That night I was interested to observe that practically all the steers lay contentedly in the clean half of the pen, while the portion which had not yet received our attention was practically deserted. This demonstrated that steers have a decided preference for a clean bed.

I have a growing conviction that if we will find out what it takes to make our stock happy and contented and then provide those conditions just as far as we are able, our efforts are sure to be crowned with success. There is much that we cannot learn about our stock by merely observing them at mealtime. We need to study their actions when they are not feeding if we expect to really understand their true condition.

### Crime Wave Emphasized

We have heard from time to time the prevalence of a "crime wave" and of a somewhat general disregard for property and the rights of others. This state of affairs was driven home to us here at Ingleside by two recent happenings.

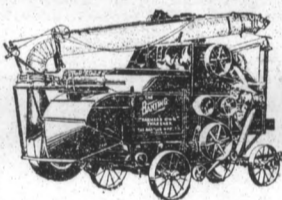
One of our neighbors had about one hundred dollars worth of clover seed sacked up ready for market which he was holding to sell a little later in the spring. One day shortly after a young man who had been helping him for several months had quit work, the farmer imagined that there was something not quite right about the appearance of those sacks of clover seed. He felt of them and found that the seed had been removed and the sacks filled with oats! To make a long story short, the law enforcing officers located the ex-hired man, obtained a complete confession and he is now serving time in Jackson prison, but the neighbor wasn't able to collect a cent from the young criminal for the seed that had been stolen for it had been sold and the money spent.

The second illustration came a little closer home. While wife and I slipped away from Ingleside for a few of the session of Farmers' Week our old car

(Continued on page 287)

### THE FARMER'S OWN THRESHER

Now You  
Can Own  
Your  
Own  
Thresher



NEW principal of construction gives amazing low cost and makes it practical for you to have a thresher all your own. Although more compact, lighter weight and low of cost, the Farmer's Own Thresher has four times the grate surface of the old type. Full capacity (1,000 bushels of wheat per day). Threshes wheat, oats, barley, rye, clover, and soy beans. Perfectly balanced. Smooth running. Many custom threshers are using it. Saves grain. Saves time. Operated with a Fordson or any good tractor. Buy one and be independent. Thresh when most convenient for you and when weather conditions are most favorable. No delay. No waiting. Beat the other fellow to the market. Get a better price for your grain. The savings soon pay for the thresher. Folder free. Form a small threshing ring in your locality, and make additional money. Write today for full particulars. **THE BANTING MANUFACTURING COMPANY** Dept. 2-A 2981 Dorr St., Toledo, Ohio. Dealer representatives wanted in every locality.

Try a Michigan Farmer Liner

## Hotel Fort Shelby

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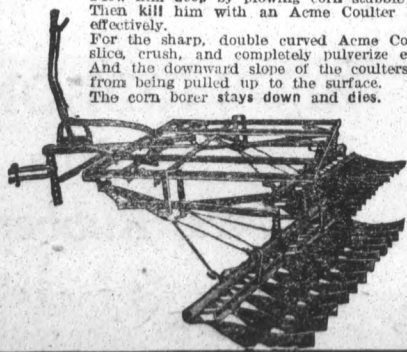
Whether your choice be one of the many very comfortable rooms at \$2.50, \$3 or \$4 a day, or one of the higher-priced larger rooms with a view of the city, river and Canadian shore, you will here enjoy a particular sense of value. Every room has a Servidor.

[Garage in connection. Cars called for and delivered without charge.]

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### The Only Good Corn Borer Is a Dead One

Here's the way to fix the corn borer. Plow him deep by plowing corn stubble deep—that's the first step. Then kill him with an Acme Coulters Harrow—the only harrow that can really do the job effectively. For the sharp, double curved Acme Coulters penetrate to the full depth of the furrow and slice, crush, and completely pulverize every stalk, every bit of trash, every clod and lump. And the downward slope of the coulters prevent the stalks and other valuable organic matter from being pulled up to the surface. The corn borer stays down and dies.



Acme Coulters Harrows have behind them 50 years of practical farming experience and the endorsement of farmers and agricultural colleges everywhere. They're built for horse and tractor use—3 to 17½ ft. Clip coupon for the FREE Acme Catalog which includes "Better Crops From Better Tillage" and interesting experiences of Acme Harrow Farmers.

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## Sugar Beet Problem

*Is a Soil Fertility Problem*

By M. M. McCool,  
Prof. Soils, M. S. C.

THERE is considerable concern with respect to the future of the sugar beet industry in this state. There need be no concern with respect to the future of it, provided the one really big factor involved in its production is considered. The outstanding thing in the production of the sugar beet crop is soil fertility. The profits derived from this crop depend in the main upon the yields per acre. It costs about ten dollars a ton to grow beets when the yield is six tons per acre, six dollars when the yield is ten tons per acre, four dollars and a half when it is fourteen tons per acre, and three dollars and thirty cents when it is eighteen tons per acre. The average yield in the state is about eight and one-half tons per acre.

Of course, when we strive for higher yields we are forced to follow better practices. It is true these higher yields cost more in cash and labor, but fortunately the increase in yields goes up faster than do the costs of the extra treatments responsible for the higher yields.

Since sugar beets as a rule are grown on the most naturally fertile soils of the state, the problems involved in raising the yields are not very difficult. After having been in contact with the production of this crop and studied the results obtained

during the past several years from co-operative experiments with prominent farmers, I am lead to conclude that there is a tendency on the part of some people to enter into academic discussions relative to the composition of fertilizers to apply and also the amounts to use per acre on the land for the sugar beet crop.

Organic matter and commercial fertilizers will raise the average yields of this crop. Sweet clover will grow when seeded in small grains on many of the sugar beet soils. The practice of turning this crop under in the late spring or the residue following its grazing by live stock is growing in the best sugar beet sections. During the past several years in co-operative tests with numerous prominent Michigan farmers, yields of twelve, sixteen, eighteen, twenty tons and in some instances more per acre, have been obtained by following well balanced systems of soil management. Acid phosphate gives good returns on the investment when used on soils high in fresh organic matter or in conjunction with liberal applications of barnyard manure in the rotation. Our results go to show that for most cases a high grade complete fertilizer, such as a 4-16-4 or 2-16-2 or similar composition is best over a period of years. The application should average about 300 pounds or more per acre.

## Plant Food Made Corn

(Continued from page 253)

It was not until Ohio was reached that the full effect of the weather was to be seen. Probably half of the cornfields there were what you could call "sick;" the others, though somewhat late, showed unmistakably how effective the employment of good soil-fertility practices had been in meeting the vagaries of the weather. The remarkable effect of manure and commercial fertilizer in Ohio in 1927 is best shown by a statement made late in the season by Robert M. Salter, chief in Agronomy at the Ohio Experiment Station, who writes in part:

"As a whole the season was such as to magnify greatly the usual effects of differences in soil fertility. Farmers who used manure and fertilizers liberally have been excellently rewarded. In fertilizer tests on corn at the Ohio Station some remarkable effects have been produced upon the rate of development and maturity of the crop.

"An extreme difference of twenty-seven days in the time of average silking date is found between the no-treatment plots of the May 13 planting and the plot receiving the combination of manure and 400 pounds of 3-12-4 in the hill. Also, by comparing the average silking date of the plot receiving manure and 400 pounds of 3-12-4 in the hill (planted on June 3) with the no-treatment plots planted May 13, it is evident that this generous fertility treatment has not only overcome a difference of twenty-one days in planting date, but has produced corn which silked nine days earlier, making a total gain of thirty days."

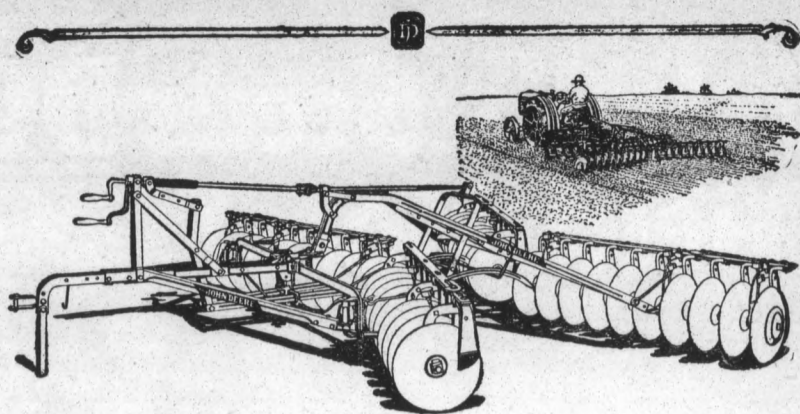
The observations made during the growing season gave accurate forecasts of what the yields would be when the plots were harvested. Here are figures on the silking dates, yields, and quality of grain for plots 24, 25, and 26 of the May 13 planting on the Wooster, Ohio, plots. Plot 25, no-treatment, silked September 7, yielded 33.5 bushels with 61 per cent nubbins; plot 24, 400 pounds 3-12-4 fertilizer in the hill, silked August 15,

yielded 62.4 bushels with 29 per cent nubbins; plot 26, 8 tons manure and 200 pounds 3-12-4 in the hill, silked August 14, yielded 89.5 bushels with 21 per cent nubbins.

The accomplishment of Ira Marshall of Hardin County, Ohio, in this year, producing 1,577.7 bushels of corn on a measured ten-acre field stands out as a classic demonstration of how good methods and soil treatment practically nullified the effects of an irregular and unfavorable season. Marshall grew his corn on an alfalfa sod, planted thirty-three inches apart in thirty-four-inch rows, and used 350 pounds of 3-16-8 followed by a side-dressing of nitrate of soda when the corn was a few inches high.

The cornfields of Indiana presented the same general appearance as those of Ohio, except that fewer of them appeared to have been adequately fertilized. In Allen County, W. F. Burbank, the county agent, took me out to see some fields of corn which he considered good examples of what high fertility means in a season like 1927; also he showed me others that were equally shining examples of what low fertility means in such a year. One of the fields visited yielded 110 bushels to the acre, it being one of four fields in Allen County that went over the 100-bushel mark.

In the Indiana Five-Acre Corn Club sixty-six Indiana farmers produced yields above 100 bushels per acre; forty-six produced yields from 85 to 100 bushels; and forty-seven had yields of 75 to 85 bushels per acre. These yields were obtained in a year characterized by Prof. M. O. Pence, who has charge of the contest, as one of Indiana's most unfavorable seasons for corn growing. Full rations of plant food, from fertilizer alone or to supplement manure, were important factors in securing such yields, the records show. The highest yield, 152.53 bushels was grown by Harry Ayler of Jefferson County, who applied 250 pounds per acre of 0-12-6 fertilizer on land which the year before had



## See These Improved John Deere Disk Harrows

JOHN DEERE DISK HARROWS have always been famous for better work and longer wear. Now, with their latest improvements, the John Deere Model L Tractor Disk Harrow and the Model B Horse-Drawn Disk Harrow are even stronger than ever before. See them at your John Deere dealer's the next time you're in town.

### Put the Model L Behind Your Tractor

The improvements embodied in the John Deere Model L include wider and heavier frame; angle steel main frame braces; pivot connection between main frame and gangs; new pivoted yoke and draw-bar guide; more carbon in steel wearing parts; heat-treated disk blades—improvements which make the John Deere Model L a stronger and heavier harrow.

Disk blades of long-wearing alloy steel hold their edge better and last longer—they penetrate in the severest conditions.

The convenient angling cranks that permit angling front or rear disks without stopping; automatic yielding lock coupling that aids rear disks in cutting ridges left by front disks; unusual flexibility—these features insure the kind of work you want.

### Its Flexibility Means Better Work

The John Deere Model B has always been the popular horse-drawn disk harrow—now, with important improvements it will give even greater satisfaction.

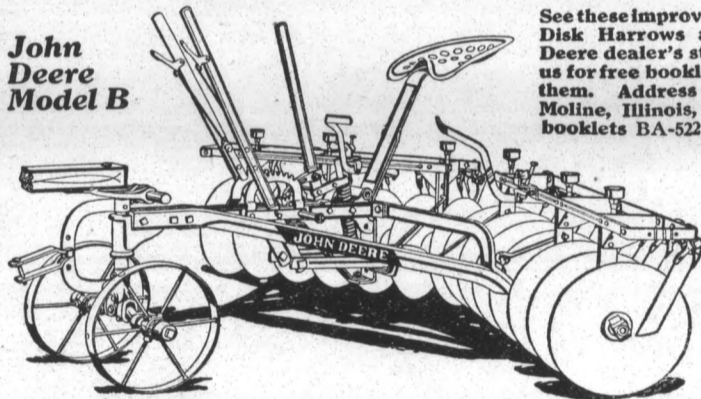
Independent action of the gangs on the John Deere Model B Disk Harrow gives it unusual flexibility—one gang can pass over a field obstruction or conform to field conditions without interfering with the

work of the other gang. An even job of disking results.

The Model B, like the Model L, has improvements that mean greater stability and longer life. In fact, the Model B now has tractor harrow strength.

The pivoted yoke controlled by powerful pressure spring and third lever insures uniform work in irregular ground—penetration is always under control of the operator by means of third lever.

John Deere Model B



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Complete Outfits—Log Saws, Portable Rigs—Buzz Saws, Saw Frames. Everything you need for working in timber. Send for my new chart, "How to Select Your Engine"—the result of 58 years Engine Building Experience. **ED. H. WITTE, Pres.**  
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received, in preparation for tobacco, twenty loads of manure and 500 pounds of 3-8-6 fertilizer to the acre.

Commenting generally on his observations of the fertility experiment plots in Indiana, Professor A. T. Wiancko, chief in Agronomy at Purdue University, writes: "There have been throughout the season very important differences between the fertilized and unfertilized corn. These differences have been more important than usual because all corn got a late start and the well-fertilized corn went ahead so much faster than the corn on the unfertilized land. In some cases this advantage on the fertilized land put the corn out of danger of frost injury from a week to ten days or more ahead of the crop on the unfertilized land. The properly fertilized plots will make satisfactory yields of good quality but with little or no soil treatment the handicap of poor treatment combined with late planting and an unusually slow season was too great to make even a fair crop on some of the plots."

Illinois was little different from Indiana or Ohio. The soil experiment fields of the State showed marked differences in the growth of corn which was especially noticeable in the serious lodging on practically all check, or untreated plots. On some fields limestone in combination with other materials prevented the lodging; on other fields, it required phosphate or phosphate-potash treatment to overcome the tendency.

"During the growing season there were striking differences in the growth of corn under various systems of soil treatment on the Illinois soil experiment fields. Later in the season the influence of soil treatment was evidenced by marked differences in lodging. Marked differences in the quality of the corn were noted at husking time. These observations indicate that the productivity of the soil, as influenced by soil treatment practices, will be an important factor in the yield and quality of corn in Illinois this year," writes Dr. F. C. Bauer of the University of Illinois, who has charge of the soil experiment fields of the State.

If the results in Wisconsin were representative of those throughout the north edge of the corn belt, good soil fertility practices will virtually move that section a week or ten days closer to the center of the corn belt. The properly fertilized corn seen on Wisconsin farms showed a thicker stand, better color, and more advanced growth. That this effect carried through to the end of the season when the corn was harvested, is shown by statements of Professor C. J. Chapman, of the Soils Department at the University of Wisconsin, quoted below:

"Due to the adverse weather conditions in the early part of the season, the corn crop in Wisconsin made a very slow start. Farmers who used commercial fertilizers, either applying it in the hill or drill or even broadcast, noted remarkable response in the early part of the season. The fertilizer seemed to stimulate the growth of the corn and mixtures containing some ammonia and potash as well as phosphoric acid, such as the 4-16-4, 2-16-2, or 2-12-2, under most conditions, were preferable to the straight acid phosphate in the central and northern parts of the State.

"The large increase in fertilizer tonnage used in Wisconsin this past season has resulted in advancing the maturity of thousands of acres of corn."

Very pronounced effects were seen in Marinette County in which section of the State phosphorus is so deficient in the soil and feed crops grown as to produce a disease of dairy cattle called "pica." As would be expected not only corn but grain and hay crops and even white beans and soy beans showed more advanced growth and earlier ripening as a result of fertili-

zation with superphosphate (acid phosphate) or other fertilizers containing a large proportion of phosphoric acid.

In southern Minnesota numerous fields of corn on muck or other drained soils gave excellent demonstration of the ability of these soils, plus a phosphate-potash fertilizer, to compete successfully with a season as backward even as that of 1927.

The season of 1927 was disastrous to the yield and quality of corn grown on millions of acres in the east two-thirds of the corn belt. It was not without some beneficent features, however. It showed, perhaps more strikingly than ever before, that there is a high degree of "crop insurance" in a soil kept in good physical condition and well charged with available plant food.

## IT PAID VAN RIPER TO FERTILIZE OATS

**B**ECAUSE oats are usually planted on corn ground that is not manured, and because they are such an excellent protein grain for growing all classes of live stock, many farmers are finding that it pays them to use commercial plant food along with the oats they sow.

During the season of 1926, a series of oats fertilizer plots were put out on the farm of Everett Van Riper in Monroe County, Michigan. There were all one-acre plots and were started while Claire Burton was county agent of that county. In due time, the plots were harvested, the oats threshed out, and the increased yield and profits resulting from the use of fertilizer were computed by R. W. Kidder, the present county agent of Monroe County.

In order that readers may visualize the field and soil conditions, this is a clay loam soil, tiled, and level. Prior to the time that Mr. Van Riper came into possession of this farm, it had not grown any alfalfa or sweet clover, at least for a number of years. In fact, the preceeding owner had a one year rotation of timothy hay, which was baled and sold off the place each year.

There were four plots. One received no fertilizer, the next a 200 pound application of 20 per cent superphosphate, the next 200 pounds of a 2-12-2 fertilizer, and the fourth, 200 pounds of 0-10-10. The no treatment plot produced about 39 bushels of oats, the 20 per cent superphosphate produced a little in excess of 57 bushels, the 2-12-2 produced 53 bushels while the 0-10-10 produced almost 71 bushels. After taking out the cost of the fertilizer, county agent Kidder computed the profit on the grain produced by the fertilizer using the current price of oats. There was some increase of straw also but this was not taken into consideration.

The 200 pound application of 20 per cent superphosphate per acre produced a profit of \$9.17; the same sized application of 2-12-2 produced a profit of \$7.14 while 200 pounds of 0-10-10 made a profit of \$15.99. It is evident that all of the fertilizers used made a handsome profit on the investment which says nothing about the better feeding quality of the grain produced.—J. M.

## IT MUST BE POLITICAL

What spleen some folks like to vent on "political nostrums" and how they gnash at "political" as it goes through their teeth. I would like here and now to call attention to the fact that no plan can be put through Congress that is not political. Congress is a political body, in fact, it is the only body that is endowed by popular franchise with the function of ministering to the ills of a nation. And for anyone to refer to an act of Congress as being non-political shows a shallow sense of governmental action.

## Listenin' In

*After Three Years, Radio Renders Better Reception Than Ever*  
Hazel B. Girard

FROM the snow-capped hills of Alaska where the giant peaks stand as alabaster altars to God to far-off Australia, the home of the boomerangs, the wide indulgent world is listenin' in.

Radio—those precious crystals of radio, mean more than the sordid market reports, the reckoning of the mercury, the symphony of music—they mean more and more each passing day. The whole effect has become what might be termed a family ensemble. Radio hour is the conventional home-tying interval of the times. It is the one period of the day when the busy, rushing ripple of the twenty-four hours is forgotten—a quietude like those historical fireside hours of the long ago.

Right now, with plenty of cold weather still waiting in the offing—long nights when the growling winds sound like prairie coyotes, and heaps of snow pile closer and closer to shut us in—is the time when we turn to the solace of the radio.

There was a time when the radios were within the reach of very few. Now they are absolutely within the reach of all. Out of the unknown somewhere, people are getting wonderful reception, glorious clean entertainment for the whole family for seventy-five dollars and less. In our own home, the radio has heralded the events of the times, performed all sorts of syncopation, jazz, and melodies for the last three years and renders better reception now than ever before.

All this may sound like the bizzare radio advertisements in an illustrious magazine or like fluent lingua of a radio salesman—but it is merely the honest-to-gosh testimonial of one who has found the radio an indispensable item in the institution known as the great American Home.

When utter tiredness engrosses the body and the world seems far away, there is nothing that will bring you in closer contact with the outside realm than those precious crystals of radio. Just to flop into an easy chair, turn on the radio—and something to eat in one hand, a ginger snap or a juicy pippin will do—and you have at command all that is recognized as perfect bliss.

If you have not a radio in the home and are considering the purchase of one, consider well and choose wisely. Visit your radio neighbors and hear the reception. Drop in at a radio store and have a demonstration. You will not have to mortgage your thatched roof or live on prisoner's fare "to make the raise." You will really be surprised how little a good radio, plus the equipment, will cost you. Not only will you be sittin' purty for the winter, you'll be sittin' purtiest for years.

### RADIO BRIEFS

MORE than 500,000 school children in the East, Middle West, and South listened in to the experimental broadcast programs instituted by Walter Damrosch, conductor of the New York Symphony Orchestra, to teach the appreciation of music via the air. The programs proved so highly successful that there is a tentative plan to carry them on next fall. "My plan for next fall," says Mr. Damrosch, "is to conduct twelve concerts for grammar school children, to be offered during school hours and to be broadcast as widely as possible at that time. Over a like period, I hope to conduct twelve concerts for students of high schools and colleges. "The plan is not designed to sup-

plant whatever musical training may already be in the courses but rather to supplement the teachers' work. It is the little red school house in rural districts that interests me most," says Mr. Damrosch.

### Radio Solves Dishwashing Problem

An Arkansas woman has discovered a way of getting the family dishes washed in a hurry on Saturday night, she reports. Her rule is: the radio must remain silent until the dishes are washed. Her oldest boy and girl are ardent followers of the Philco Hour presentations of light opera and musical comedies. The children al-

### AT THE DIAL

WITHOUT referring to the log, can you turn the dial on your radio to give you the market reports on farm products? Have these reports been of any advantage to you financially? If so, tell us about it. Don't fuss over trying to write it up; just explain how it happened in one of your everyday letters. If we can use your letter you will be sent a prize. Mail your letter on or before March 2 to Radio Editor, Michigan Farmer, Detroit.

ways get together to "do up" the dishes in a rush so they won't miss the beginning of the hour each week.

Yascha Bunchuk, sometimes called the "Heifetz of the Cello," but better known to "listeners in" as a member of Roxy's Gang, has a bit of interesting foreign history connected with him. When a student of the Russian Imperial Conservatory of Music in Petrograd, he was presented with a \$30,000 Guanariu's cello by General Leemoff, then in command of the Russian forces. The war was on, and the young artist, desiring to make his way to America, succeeded in getting as far as Constantinople. Here he came to the attention of Admiral Bristol, commander of the United States Naval forces of that port, and through his aid Bunchuk finally succeeded in being allowed to embark for America. Just recently he received his final papers as an American citizen.

The "Great Moments in History," broadcasts of the NBC Red Network are followed closely by school students, according to a letter received from a high school principal in Michigan. So much of a factor are these broadcasts considered in teaching history, this principal states, that the title of the weekly broadcast is always posted on the bulletin board of the high school.

### BY THE WAY

While Pat and Mike were crossing the ocean, Pat became seasick. The captain heard of his illness and the next day asked Mike how he was feeling.

"I threw him over board yesterday," answered Mike. "Did he die?" asked the captain. "I don't know," replied Mike. "I don't think so. I asked him if he was dead and he said 'no,' but he is such a liar that I couldn't believe him and so I threw him over board."

It was the dear old lady's first ride in a taxi, and with growing alarm she watched the driver continually putting his hand outside the car as a signal to the following traffic. At last she became angry.

"Young man," she said, "you look after that car of yours, and watch where you are going. I'll tell you when it starts raining."

# Nitrate of Soda WINS on CORN



Above—Ira C. Marshall and a view of his crop. Below—A close-up of the 3-time Corn King.

Meet the 3-time Corn King of the World—  
Ira C. Marshall, Ada, O.  
Certified Average yield  
on 10 acres . . . .  
**157.77 BUSHELS  
PER ACRE!**

**H**ATS off to Ira C. Marshall of Ada, O. For the third year in succession he is Corn King of the World. In the face of a late spring and little rain he averaged 157.77 bushels of corn on 10 acres . . . almost equal to his world's record yield of 168 bushels the previous year under favorable conditions. Ohio State University officials certified the yield.

### Marshall's Fertilizer

To grow this remarkable crop Mr. Marshall used 350 lbs. of 20% acid phosphate, 150 lbs. of Nitrate of Soda and 50 lbs. of potash per acre. And this is what he says:

"I don't want to take the full credit for making this outstanding crop, or pose as being a super-farmer of any kind, but I do want to give a good share of credit where credit is due. Nitrate of Soda is in a very large way responsible for this remarkable yield." Ira C. Marshall, Ada, Ohio.

Mr. Marshall's record yields date from the time he began using Nitrate of Soda. In 1925 he used Nitrate of Soda for the first time—50 lbs. per acre—and his yield averaged 160 bushels. In '26 he used 200 lbs. of 20% acid phosphate, 150 lbs. of Nitrate of Soda, and 50 lbs. of potash per acre. He averaged 168 bushels per acre, believed to be a world's record.

Do you think it just happens that winning crops are Nitrate of Soda crops? Use it yourself on your corn this year. See what happens! It's Nitrate of Soda, not luck, that makes outstanding crops. This goes for fruit, and truck crops, too.

### Fertilizer Information FREE.

Write for a copy of our new 44-page illustrated book—"How to Use Chilean Nitrate of Soda." It is free. Ask for Booklet No. 1 or tear out this part of this ad and mail it with your name and address.

## Chilean Nitrate of Soda

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**A**LERT and watchful, the boys started to hurry on, for now Jock's voice was a frenzy of mixed barks and growls. Not a dozen steps had been taken when, with a spiteful whine, a bullet clipped clean a wand which Ted held in his outstretched hand, and, as if in echo to the explosion, another bullet spat into the tree above Bob. There was no mistaking that warning. In undignified flight both boys fairly fell down the hill. Rolling, tumbling, trembling with excitement, they brought up at a seemingly safe distance.

"Some hunter, all right," jeered Ted. "And we came darned near being the game. Me, I'm needed at home. I hear my dad calling me right now."

Still the incessant barking of the dog came to them. Bob Barton's lips set in grim lines. Into his eyes came the light which betokens a fighting man, a light which Ted Baldwin was to glimpse often in coming days. "I'll never go off and leave Jock there to be killed," said Bob. "He'd fight for me, and I'll fight for him." Only pausing to secure his axe, Bob started toward the bluff again and now his gait was headlong, impetuous.

"By heck!" cried Ted. "I haven't lost any dog. But I'm going along with you."

"Play safe, old man," called Bob as he plunged through the bushes. "No need of taking any risks." But again the chums were side by side when they reached the place of their precipitous leave-taking. Warily they pressed on, dodging from tree to tree, until finally they reached, without mishap, the place where Jock was visible. To the intense disgust of Bob, the Airedale was digging madly in some burrow.

"Of all things," chortled Ted. "The durned mutt is after some skunk or 'possum. And us riskin' our lives for you!" Playfully he grabbed the eager dog and boxed his ears.

"Like fun he was," said Bob, and there was no levity in his voice. "What do you call that?" In the soft earth not far away was the imprint of a booted heel. But the thing which held Ted spellbound, then caused him to cry out in alarm, was the mark of some giant foot. Even as they looked, Jock, with bristling hair, sniffed at the track, then resumed his mad digging into the cliff's face.

"Bear!" said Ted Baldwin. "Bear! Boy, let's get away from here."

"Not until I look around this place," was Bob's dogged response. "That fellow that made that track never went into that hole." But search as they might, there was no clue. If the towering bluff held any secret, it seemed locked in its grim breast. No other track could be found, no evidence that beast or human had stood there in defiance of the approach of man. Baffled, the boys retraced their steps, taking the Airedale with them, and resumed tree cutting.

"Mum's the word," Bob commanded. "No need to worry our folks over this."

## Under the 4-H Flag

By John Francis Case

But now I'm sure that whoever drove the Harkins and Perkins folks away, again will be after us. We'll fight 'em, Jock, old boy."

"Count me in," announced Ted. "All I need," he added with a rueful grin, "is something to make my knees behave. The rest of my body is all right, but my knees knock like a worn out flivver trying to pull a hill in high. There can't be any bear around here. Yet there's a bear track. It gets me."

"That bear," said Bob, "seems to be pals with somebody who handles a high-powered gun. Both of 'em must have wings or be able to evaporate into a skunk hole. I'm going to tell Mr. Burton," concluded Bob with sudden resolve. "He's a keen guy and

unseen, so intangible, so mysterious, gripped both boys as they worked, hushed their voices, clogged their steps as they advanced farther in search of suitable trees. It was a subdued pair which set out for home when the day ended and night began to darken the western sky. The future weighed heavily upon Bob Barton's young shoulders. What if they should lose all invested? What if harm came to those he loved?

### CHAPTER IX Club Work and Play

**R**OSS BURTON had listened gravely as Bob related the happenings of a few days before, had questioned both Bob and Ted closely. Then, borrowing a small rifle owned

### VANQUISHED --- VICTOR

All flushed and breathless in the eager race,  
Forward I pressed and blindly reached to clasp  
The warm hand of Success. A chilling grasp  
My own imprisoned; in the winner's place  
Another stood, and I, brought face to face  
With grim Defeat, knew all was lost. She led  
Down the long slope up which I late had sped,  
While proud Ambition urged to quickening pace;  
Down, down to a deep valley, lone and drear,  
Whose grinning rocks seemed mocking my despair  
As 'mong their jagged shapes I cast me down  
Disconsolate and heard the echoing cheer  
Resounding from the lofty summit where  
My rival held the prize and wore the crown.

Through the dim chamber of my consciousness  
A still voice thrilled; I heard the Master's word:  
"The servant is not greater than his lord.  
Canst thou forget the woe and weariness  
Of failure out of which was wrought success  
That ne'er shall fail? The death upon the cross,  
The sealed tomb bespoke despair and loss  
Such as earth had not known; God's processes  
Changed them to triumph and eternal gain.  
Arise! My strength shall nerve thy feeble hand.  
Unclose thine eyes that thou by faith may'st see  
The race to run so that thou may'st obtain."  
Trembling, I rose to do my Lord's commands,  
And lo! Defeat gave place to Victory.  
—Ida M. Budd.

he's had World War training. We'll see what his advice is."

"Good idea," commented Ted. "Ross Burton won't have any trouble with his knees. Some day there's going to be a 'showdown' over this mystery. I'm glad it isn't on our farm. Heck, Bob, I do hope you folks won't be driven away."

"We won't be driven away!" Bob Barton's voice had risen almost to a scream as he faced the dark forbidding woods which seemed to hold a menace of death itself in their gloomy depth. "We'll fight to win!" Brave words, and Ted thrilled with admiration for his comrade. Yet fear of the

by O'Neal, Burton, with the boys, had visited the scene of action. Nothing had been found, although the footprints still were visible. The county agent examined the bear track closely. "There's no question whatever," he announced, "that this track was made by a bear. I've hunted 'em. He's a big fellow, too. But why a man and a bear should be together here is beyond me. And why there should be any desire to drive residents from this farm is another thing. My advice," Burton concluded, "is to let 'sleeping bears lie.' Keep a sharp lookout, Bob, and as live stock was the thing taken before, tie Jock in the hog house

nights to be on the safe side.

"I don't like to keep this from your parents," the county agent went on after they had agreed on procedure, "yet there seems no good in worrying them unless something really happens. I'd keep away from this timber. Let me know at once if you have need for me. I like a fight," and Burton's grin was boyish, "but hanged if I could enjoy being shot at from ambush. If Mister Mystery shows his hand, we'll try and smoke him out."

Waiting seemed the logical thing to do, and yet, as the days wore on and the nights passed, Bob found himself often stopping to listen apprehensively or waking to lie tense and speculative as to what the future might bring. Farm work was an endless grind. It was a relief to Bob's strained nerves when Ross Burton and Miss Edwards announced that a community 4-H Club would be organized and preparations made for the good times of the summer months. It would give him something to think about beside crops and possible encounter with strange marauders. The boys and girls met in the Pleasant Ridge schoolhouse, its fine community hall a credit to the progressive neighborhood which had voted school consolidation.

It was not as a stranger that Bob Barton came. Companionable and eager to do their part in community building, the Bartons quickly had won friends. Father Barton's violin and Bob's cornet had been welcome additions to the school orchestra. A bit reserved, yet wholesome and manly, Bob had been received with approval by old and young alike. Yet to a degree he still was a stranger, a bit lonely as the group of young folks representing several school districts came together fifty strong. Mr. Burton presided, and the local leader, Margaret Collins, a high school teacher, quickly was chosen. "We will now elect officers for the club," announced Burton, "and I hope that you will give due thought to the importance of this phase of the work. We want a president with pep, perseverance, and personality. Whom will you have?"

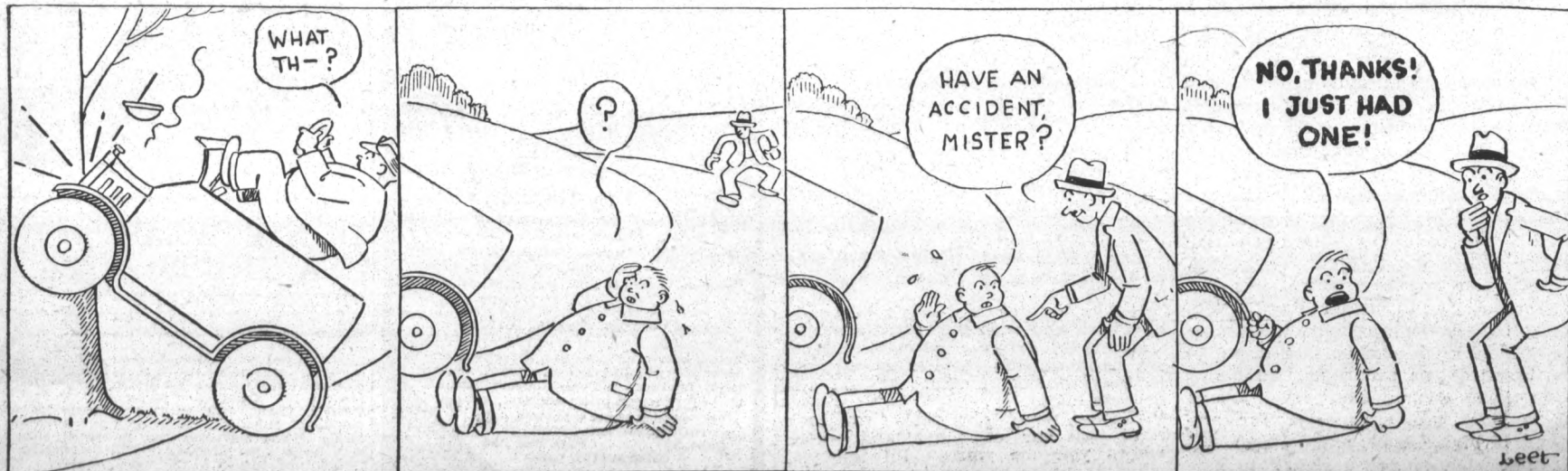
Up sprang a girl member of the high school orchestra which had played for the gathering. Bob sat idly, cornet in hand, wondering whom she would nominate. Dark and vivid, a chum of the fair-haired Katie O'Neal, Elsie Duncan began to speak. "The most of our members, Mr. Chairman," said Elsie, "belong here in the Pleasant Ridge community, so I think we should have the president and secretary. I desire to nominate a new member for the presidency. He has proved to us who know him that he is able and worthy. I nominate Robert Barton." Elsie sat down while a ripple of applause ran through the room. Bob almost fell off his chair in astonishment, then rose to address the chairman, but Ted Baldwin was before him.

"Mr. Baldwin has the floor," announced Burton formally.

"I second that motion," said Ted. "It's true that Bob's not so well known

Activities of Al Acres—"One is Enough!" Says Slim

Frank R. Leet



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Greatest Overshoe Bargain Ever Offered! First quality women's all rubber Genuine Zippers, known as the best automatic gaiters made, sell anywhere for \$5.00 and more. A close-out purchase of a limited quantity enables us to offer them at \$1.59. For this reason the names have been buffed off. They are all rubber outside, friction lined, medium weight. Easily washed—just the thing for wet, muddy roads this spring. Medium last—will not fit over extra wide shoes. Low heel only. Half sizes.

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100 lbs. net weight of fish—Choice frozen dressed Herring \$5.75; skinned dressed headless Herring \$10.00; Halibut dressed headless \$15.00; new winter caught Yellow Pike \$12.00; round Pickerel \$6.75; dressed headless Pickerel \$9.00; Salmon dressed headless \$14.50; Lake Trout dressed \$22.00; Haddock Fillets parchment wrapped, all meat, no bones, 15 lb. boxes \$22.25; Steak C&D dressed headless \$11.00; Mackerel \$10.00. Remit with order. Package charge 30c per hundred pounds additional. Orders for less than 100 lb. lots ½¢ per pound more. Order direct from this ad and save time, or send for complete list. Address: WISCONSIN FISHING COMPANY, Green Bay, Wis., Dept. 1. Over 25 years honest dealing insures you complete satisfaction.



100 Lbs. Net—Frozen large dressed Herring, \$6.00; headless Pickerel, \$9.00; yellow Pike \$12.00; Salmon \$12.50; Tullibee Whitefish \$9.50. Remit with order. Package charge 30c per 100 lbs. We charge ½¢ per lb. more in less than 100-lb. lots. Send for price list of all varieties fish.

Consumers Fish Co., Green Bay, Wis.

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wet, dry or lumpy lime and all fertilizers; spreads 75 to 10,000 pounds per acre evenly even on hilly ground. Patented auger force feed can not clog; no caking. Fits in place of end gate; changes in midfield from one wagon or truck to any other quickly, easily. Saves time, labor, money by handling fertilizer only once. Thousands in use. Guaranteed. Write for lowered price and FREE Soil Tester.

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as some of us who were born here, but he's got all that Mr. Burton asked for—pep, perseverance, and personality. He'll make a great president."

Now Bob had the floor and was recognized. "I appreciate deeply the honor," said Bob, "but I am both unknown and unfitted for the work. I ask Miss Elsie to withdraw her nomination."

Elsie Duncan shook her head vigorously, and Chairman Burton smiled at Bob. "You are out of order," he announced. "It is up to the members to decide on your fitness."

"Vote! Vote!" cried the girls and boys. With no other nominations offered, the vote was by acclamation, and Bob Barton found himself President Barton of the Pleasant Ridge 4-H. "Speech! Speech!" yelled the boys, while the girls clapped. The room grew silent, and many of the members unknown to Bob pricked their ears as he began to speak.

"Fellow members of the 4-H Club," said Bob, "it is not necessary to say that this honor is as surprising as unexpected. But I shall give you the best that is in me. That is all that anyone can do. I thank you sincerely and hope that your confidence has not been misplaced." There was dignity and sincerity in Bob's presence and words. The members warmly applauded and a little hum of satisfied comment ran through the room. Quickly James Curtis, resident of another district, was elected vice-president.

"Now we come to the secretary," said Chairman Burton. "You know," and he smiled down at Bob, "a president doesn't amount to much. It takes a real secretary to make things go. Whom will you have?"

The response was spontaneous. "Katie O'Neal! Katie O'Neal!" cried a dozen girls, while the boys cheered the name. "All in favor say aye," laughed Burton. The election was made with a resounding cheer, and Katie, flushed and smiling, rose to bow acknowledgment. It was easy to see that she was the most popular member of the club. Hazel Blair, member of the poultry division, was named as assistant. As the meeting dispersed, Miss Collins called the newly elected officers together and congratulated them. "I am sure we are going to have a fine year," she announced, "and one hundred per cent loyalty. We'll call the club together in two weeks. I think the members showed good judgment in choosing their officers," she concluded smiling.

Ted Baldwin had waited at the door for his chum. A wide grin spread over his face. "Quite some little surprise, eh?" Ted inquired. "Who says a girl can't keep a secret? Katie O'Neal has been 'plugging' for your election for two weeks. Some smooth little politician, I'll say. What did you promise her, Bob?"

Bob's reply to his chum's teasing was a well-directed cuff, but inwardly he was glowing. It is only human to appreciate honor bestowed, and Bob Barton was an intensely human individual. Katie's interest proved that friendship which sometimes he had doubted was sincere and abiding. Yes, he'd do his best to prove worthy of the trust.

Katie came out and joined them. "Congratulations, Bob," she said, putting out her hand. "Didn't you see how surprised I was when you were elected?"

Bob took the small hand in his strong clasp. "Little politician," he mocked, but his voice had a note of seriousness. "You got me into this, but I'll pay you back. You'll have all the work to do." The look in Bob's eyes caused the new club secretary to flush and hurry on.

(Continued next week)

Immigrants at Ellis Island are shown moving pictures each Friday night.



# GIVE YOUR FARM a chance

**CROPS WERE 50% BETTER.** . . . Mr. Arthur Lane of Marietta, Washington County, Ohio says: "I used 'AA QUALITY' Fertilizers on my corn and potatoes last Spring. I never had any fertilizer do my crops so much good, and the drilling condition was fine. I think my crops were fully 50% better than any I have ever grown with any other fertilizers." October 7 1927.

**1400% PROFIT . . .** Mr. Clarence Priser, of Claypool, Kosciusko Co., Ind., says: "This season 'AA QUALITY' Fertilizers paid me a profit of 1400% on onions, or gave me a return at the current price of onions of 15 times the price of the fertilizer, which certainly should convince anyone that it is very profitable to use 'AA QUALITY' goods. The onions were of good quality, and the crop ripened somewhat ahead of those where fertilizer was not applied." September 24, 1927.

**EXCEPTIONAL CROP RESULTS . . .** Mr. A. A. Schultz, Superintendent of the Detroit Creamery Co. Farms, Mt. Clemens, Macomb Co., Mich., says: "This year our 40-acre wheat field averaged 50 bushels per acre, and our 356-acre oat field averaged 68 bushels per acre; our 153 acres of alfalfa produced 380 tons first cutting, 316 tons second cutting and 100 tons third cutting—all this notwithstanding the fact that weather conditions were not the most satisfactory. The foregoing I believe is ample reason why I prefer 'AA QUALITY' Fertilizers and recommend them to others." September 30, 1927.

DO you need a new tractor, a cultivator or other farm machinery? Does the barn need rebuilding? Is the old car worn out? Or perhaps there is a son or daughter to send to college.

Here is a way to make the necessary added income from your farm. Use "AA QUALITY" Fertilizers and get extra yields, better quality, and earlier maturity—crops that provide the added income necessary for the comforts and advantages to which you and your family are entitled.

"AA QUALITY" Fertilizers will give your farm a chance to prove what it really can do. Increase your profits by using these Fertilizers, just as scores of other farmers near you are doing. Read the letters at the left, for instance.

Actual crop results prove that there is a vast difference in fertilizers of the same chemical analysis. Chemical analysis does not fully disclose the sources from which the plant-food elements are derived, neither does it indicate the mechanical condition—two very important factors affecting crop-producing power.

"AA QUALITY" Fertilizers produce more profit for every dollar invested in fertilizer because of the infinite care used in selecting the materials from which the plant-food elements are derived; because these famous formulas are based on a thorough knowledge of crop and soil conditions, and are backed by over 60 years of successful crop production.

Plan to increase your profits in 1928; insist on getting "AA QUALITY" Fertilizers for this season's crops. Give your farm a chance.

Our "Agricultural Service Bureau," under the direction of Dr. H. J. Wheeler, will be glad to answer inquiries about crops, soils or fertilizers. Send for our Booklets. Please state the crops in which you are interested.

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"THE WORLD'S BEST BY EVERY TEST"

# WORLD EVENTS IN PICTURES



Lady E. Maud Warrender introduces ancient sport of Robin Hood to elite at Palm Beach.



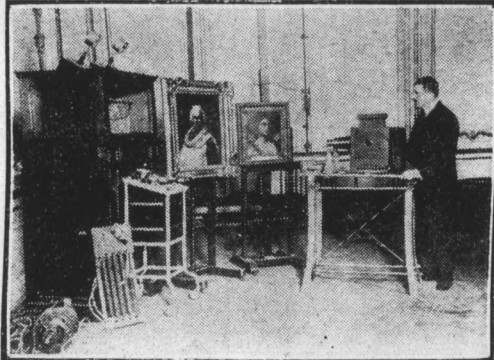
A general view of the largest collection of hospitals and training schools in the world, the new medical center in New York City, which covers an area of twenty acres.



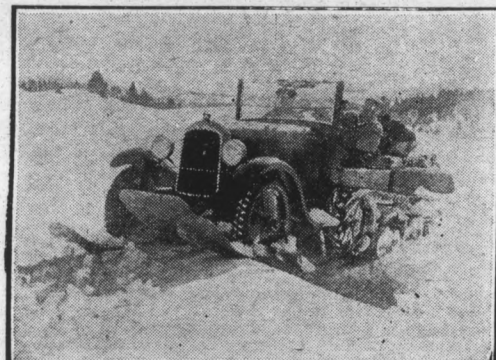
Mustapha Kemal plans to balance Turkey's budget by selling priceless crown jewels.



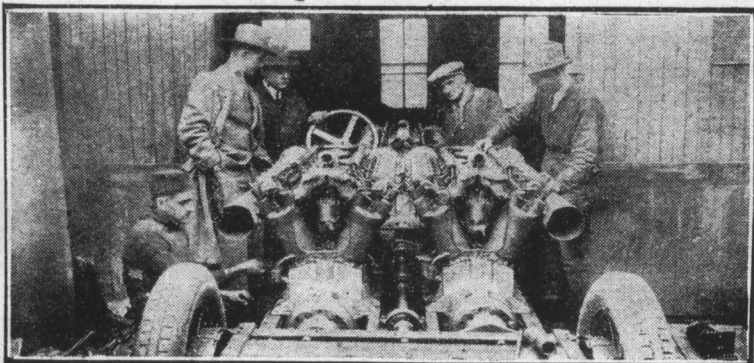
Family of Italy's Napoleon, minus latest arrival—left to right: Vittorio, Edda, Bruno, and Donna Rachele, the mother.



An X-ray machine for testing the genuineness of paintings has been invented by Prof. Cellerier of France.



This tractor-type auto sledge made the difficult climb up the Alps to the Hospice of Saint Bernard.



The power of 3,000 horses is built into this powerful car which has three motors and thirty-six cylinders. It will compete in the International Speed Trials at Daytona Beach, Florida.



The winners of the Kansas Dairy Association milking contest, Maida McCarthy, left, and Emma Lou Martin, right, were presented to President Coolidge by Senator Arthur Capper, center.



Princess Ingrid of Sweden makes her debut in traditional robe of velvet and ermine.



Without arms to guide her and without stirrups to support her, Josephine Callaghan, daredevil woman rider, jumps horse over hurdles.



Henry Heiland, of Thomasville, is champion corn grower for third time in Pennsylvania.

## Doing the Impossible

Our Weekly Sermon—By N. A. McCune

IN the story of Jairus and his daughter," says a recent writer, there is a peculiar warmth of humanness. We see the man of wealth, a prominent citizen, a ruler in the synagogue, utterly broken by anxiety, begging piteously for help for his little girl. There are surroundings of luxury, retinue of servants—but what do these avail? She is twelve years old, and an only child; she lies there like a broken flower amid all the wealth that was to have been hers some day." This is well said. The raising to life of this little girl is one of the most beautiful of all Christ's miracles. Somehow, it has not lost its pathos, even after the lapse of centuries.



The death of a child always goes home to peoples' hearts. I remember seeing, some years ago, in the English cemetery in Rome, Italy, a grave with a neatly carved

stone over it. On the stone were the words, "O my boy, so far from home."

As we have said before, all these healings and signs had spiritual significance. The raising of the dead child is a symbol of the raising of the soul to life. "In the New Testament," says Bishop Westcott, "it might seem as if every great form of disease were brought before the Savior, that He might show that only an enemy had brought it among men. Work followed work in the manifestation of mercy, with ever-widening lessons of spiritual import, till all was consummated in the crowning act of the raising of Lazarus, the last and clearest type of the resurrection."

Why were so many of the folk in the house put out, when Jesus came to the bedside of the child? Why not perform this amazing work in the eyes of all the people possible? For one thing, he would never do any work for the sake of the curious or the gossiping. Always and always, his works were done as quietly as possible. He hated show. Had he not taught that praying should not be done pretentiously, but in secret? This rule he followed as closely as possible in his "mighty works." Always he was saying to the healed person, "Don't say anything about this. Keep it still." But usually the healed patients were in such ecstasies that they told everybody. But there was a deeper reason. The cure depended on the people as well as on him. Does not Mark say that at Nazareth he could do nothing, because of their unbelief? Why does he ask people to tell him exactly what they want? Because he must know if they have some simple, direct faith. He cannot work where people do not believe. When the frantic father of the epileptic boy begged him to do something for his child, the reply was, "if thou canst believe, all things are possible." In other words he had to have a favorable environment, people who really believed in what he was about to do.

Are any such works as the healings of Christ done now? Has it come true,—"Greater things than these shall ye do? One has to ascertain the facts, and then judge of such things for himself. Some people declare that wonders in medicine are constantly going on, almost equal, if not quite, to anything that Christ did, except, of course, bringing life back into a lifeless body. Even leprosy is being mastered, thanks to ceaseless experiment and the discovery of chamoolgra oil. Every day persons who would die in a short time are restored to health through surgery. Jesus always associated bodily sickness with the ills of the soul. "Sin no more lest a worse

# Motor Car Bodies

## Covered with Celluloid

Today, paint is not used in finishing motor car bodies. Instead, they are "Ducoed" or lacquered.—When a car body is lacquered, it is actually covered with coatings of colored celluloid, sprayed on.—The use of lacquer has resulted in a far greater variety of colors and color combinations in finishing motor car bodies. It has another great advantage, that of retaining its luster much longer than paint.—Although lacquer has greatly simplified body painting, as many as 15 major operations are required before the lacquering of a Fisher Body is completed.



### Method of Finishing a Fisher Body

After a Fisher Body receives four coats of "rough stuff" it is ready for a Japan ground color. It then receives four to six coats of lacquer. Then there are, of course, five drying periods, one between each coat of lacquer. It is then carefully rubbed, once after the "rough stuff" has been applied and again—this time with oil and fine sandpaper—after the lacquer has been applied. Finally, it is polished; and then, if the paint design calls for striping, it is striped by highly skilled men who work free-hand and who specialize in this delicate art.



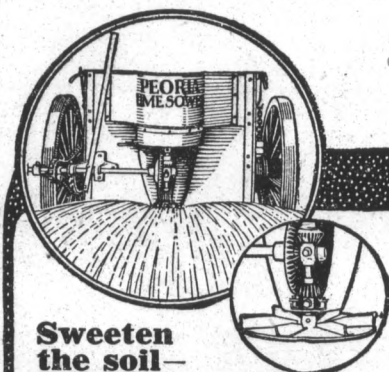
# Body by FISHER

thing befall thee." It is, therefore, when the spiritual and the scientific work together that the greatest results are obtained. Bodily sickness is still a type of the sickness of the soul. Here are a few lines from the "Edge of the Primeval Forest," by that astonishing modern Saint Paul, Doctor Albert Schweitzer, of Africa. Describing an operation in his tiny hospital on the edge of the jungle: "I watch for the sick man's awaking. Scarcely has he recovered consciousness when he stares about him and ejaculates again and again, 'I've no more pain! I've no more pain!' His hand feels for mine, and will not let it go. Then I begin to tell him and the others in the room that it is the Lord Jesus who has told the doctor and his wife to come to the Ogowe. Then I have to answer questions. The African sun is shining through the coffee bushes into the dark shed, but we, black and white, sit side by side and feel that we know by experience the meaning of the words: 'All ye are brethren.'"

SUNDAY SCHOOL LESSON FOR  
FEBRUARY 26th

SUBJECT:—Mark 5:22-43.  
GOLDEN TEXT:—March 5:34.

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Sour soil means small returns. Sow lime and make your land increase your crops—liming pays big dividends. The Peoria Wagon Fertilizer sows damp or dry lime. Uniform 18 ft. spread. Force feed. No windage waste—no clogging. Does double the work of wheel—costs much less. Attaches to wagon without removing endgate—strengthens wagon box. No high lifting. No cleaning or repair of cleats to attach. Half the gears and sprockets. Capacity 100 to 10,000 pounds. Fully guaranteed. Low in price.

**New Attachment**  
—makes two machines in one  
At just a few dollars extra cost the Peoria is equipped with NEW small grain sowing feature. Casts oats 30 ft.; wheat, rye, barley and rice 50 ft.—in any desired quantity. The Peoria with NEW ATTACHMENT does your fertilizing and sowing—two machines in one. Write for circular on this and our other new farm tools.  
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### 100 PEACH TREES \$12.50

A RARE OPPORTUNITY to buy unusually thrifty 3 ft. peach trees at this bargain price. Guaranteed stock. Wide selection of varieties. Our free 1928 catalog lists many unusual bargains on Fruit Trees, Shrubs, Vines and seeds.

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### Get a SHAW DUAL TRACTOR

Fine for Truck Gardens, Small Farms, Estates. Does the work of 6 men. Plows, seeds, cultivates, runs belt machinery. Single or Twin Engines. Riding or Walking types. **Try It 10 Days** on your own work at our risk. Write for LIBERAL TRIAL OFFER and our LOW FACTORY PRICE.  
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**Ditch Terrace**  
Liberal Terms—No Interest  
**Martin** Adjustable  
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DITCHER-TERRACER-GRADER  
Grow Crops—Not Bullfrogs  
Greatest crop maker. Drained and doubled crops with no more work! Stopped soil-washing and fertilizer loss! Worthless water-logged land brought to top-sale price! Actual MARTIN records! MARTIN cuts ditches for any purpose, open drain, tile or irrigation! Cleans old ditches! Terraces to stop soil washing! Reclaims swampy land. DRAINS FLOODS! conserves moisture. Works anywhere. Horse or tractor. Does work of 100 men. Fine catalog free. Write today for terms and 10-day trial.  
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# The WOMAN'S INTERESTS

## Know Reason for Child's Behavior

*In Order to Understand His Motives and to Administer Just Punishment*

By Dr. D. A. Thom

**I**N dealing with children it is necessary to find out their reasons and motives. Many times what seems like flagrant disregard for the parents' requests is to the child only an earnest desire to help mother or father, as the case may be.

The little girl of four, who had been told time and again not to play with water, when found in the kitchen dripping wet, having spilt water all over herself, was punished for her disobedience. Later it was learned that what she had done was to climb up on the sink to get a basin of water and a cloth with which to wash the finger marks off the doorway as she had seen mother do. She slipped, the water spilled, and punishment followed. To her it must have looked as if she were punished for trying to help.

Another little boy had learned that he must never pull up the plants in the garden. He watched his father at work getting out the little weeds in the flower bed, and a few days later, in an attempt to be helpful, he pulled up all the little new growth of carrots and left standing the tall, well-developed ragweed!

Some restrictions are placed on children that it is nearly a physical impossibility for them to carry out. "Sit still" and "Be quiet" are very easy to say, and yet to a healthy youngster, full of life and vigor, such commands are extremely hard to carry out for more than a few minutes at a time. Little children are growing and developing new muscle power all the time, and they must have freedom to run, jump, shout, and play. Nature demands it. Perhaps some special part of the house or yard may be set apart as theirs—a place with few dangers or hampering restrictions where they may safely "work off their steam" unchecked by continual nagging.

### PLAN HOUSE WIRING TO MAKE WORK EASY

**W**HEN a home is wired for electricity, plenty of floor plugs, outlets for electrical equipment, lights in dark closets, and plenty of convenient switches should be provided, for electricity should help make housework easier as well as to light the house.

In the kitchen, lights should be located so that they illuminate the work. They should not be located so they shine in the eyes of the worker or throw her shadow on her work. Ceiling units especially devised for use in kitchens, if properly located, provide excellent lighting. Wall service outlets in addition to lights are especially to be recommended and the kitchen should be wired for one or more plugs to suit conditions.

The dining room needs a wall outlet or drop socket from the fixture over the table for electric toasters, percolators, waffle irons, or other electric equipment used for cooking at the table. The outlet may be used for the vacuum cleaner, too, when the dining room is being cleaned.

Several low, wall or base-board outlets are desirable in the living room for bridge lamps and table lamps and for attaching the vacuum cleaner. Having more than one such outlet pre-

vents the need for unsightly extension cords about the room. A low, wall outlet is also desirable in each bedroom and a higher one in the bathroom will permit electric heaters or curling irons to be used.

#### In Dark Corners

Shoes and hats do not get lost in the corners of large clothes closets equipped with ceiling lights. Dark hallways and staircases need wall or ceiling lights, and, with convenient switches at both ends, no one need stumble up or down dark stairs.

A switch by the cellar door with a pilot light connected with all the cellar lights will save electricity by indicating when the lights are on. Consideration for both the present and future needs of electricity in the home when the house is being wired will save the expense of additional wiring later and the inconvenience of too few electric outlets.

### HANG PICTURES THOUGHTFULLY

**B**ECAUSE pictures seem such small unimportant things in furnishing the house, many a homemaker is content to hang them anywhere on the wall that seems convenient. But pictures are some of those details that give a room character, that can make or mar an otherwise attractive interior.

The woman who is anxious to make her home as attractive as possible should remember that the same rules of good taste which she uses in the rest of her furnishings should be applied to hanging pictures.

One of these is that light pictures are best hung on fairly light walls and dark pictures on dark walls except when, for balance, a dark picture is placed over a dark piece of furniture. For the sake of harmony, tall pictures generally look best in vertical wall spaces and broad pictures in

horizontal spaces are more pleasing.

Many people hang pictures too high. This means that the eye is carried up toward the ceiling, instead of being kept at the most interesting points in the room. Pictures are apt to make the room more attractive if they help form a group with a desk or a table.

Pictures which are hung together in a group should be somewhat related in size, shape, and color. A large oil painting, for example, should not be placed next to a delicate etching, and oval and square pictures should be hung in separate groups.

To make the most of pictures, allow plenty of plain space around them. An over-mantel arrangement should not include both a picture and a large clock. This arrangement looks as if both are striving for attention; the space should be given to either one or the other.

### HOW TO HOLD A CHICKEN

**W**OMEN are so brave and efficient these days that it is not surprising that many of them will catch and kill a rooster in less time than it would take them to ask a man to do it for them. For those that dread to do so because the fowl might pull its

head back just at the critical moment, I write of my own discovery. Drive two strong nails into the chopping block far enough between them so that they will hold the fowl's head firmly between them, then—the rest is easy.—Mrs. C. H. F.

### MY FAMILY LIKES THESE

#### Fig Brown Betty

¾ cup melted butter of orange  
1 pint sliced apples 1 pint bread crumbs  
½ cup fruit juice or ½ cup sugar or molasses  
water ½ pound chopped nuts  
Juice and grated rind

Arrange alternate layers of buttered bread crumbs and thinly sliced apples and chopped figs in a pudding dish. Sprinkle with sugar and a little cinnamon or other spices. Finish with crumbs and pour mixed molasses and water or fruit juice over all. Cover and bake for one-half hour. Remove the cover and bake three-quarters of an hour more. Serve with lemon sauce.

#### Apple Mint Jelly

Strain apple jelly and add two teaspoons mint extract to each cup of apple jelly. Use green color paste to make a delicate color and pour into glasses. When firm, cover with melted paraffin.—Mary Richards.

Samantha says: Beauty is skin shallow and soul deep.

## Vegetable Candies Hold Vitamins

**I**N order to fill my family's sweet tooth, which seems to be always hollow, I resort to many different schemes to keep them "eating for health." For instance, neither of the children would eat carrots but after I surprised them with crystallized carrots in their lunch pail, they soon asked for a serving of creamed or buttered carrots when the rest of the family were being served.

#### Crystallized Carrots

Peel young tender carrots, and let

stand in cold water several hours. Cut crosswise into slices ¼ inch thick. Drop into boiling water and cook until tender, drain, then put into a syrup made by boiling one part water to three of granulated sugar three minutes. When the carrots have boiled in this syrup ten minutes, pour into a dripping pan with a wire cake cooler in the bottom of it. Spread the carrots out over the wire, cover, and let stand twenty-four hours. Lift out rack, pour syrup into kettle, and cook to 220 F. when it almost threads, not quite. Stir the carrots as they cook until heated through, then wash the rack, place it in the dripping pan, and pour syrup and carrots in, cover and leave a day. Repeat four times, and the candy will be perfectly preserved.

#### Potato Fondant

The children have no idea that potatoes are the basis of the little pink or yellow candies that I wrap individually in waxed paper for dessert for their school lunch. To make them I force one-half cup of hot mashed potatoes through a sieve, add a beaten egg, and gradually add confectioner's sugar until the consistency of bon bon cream. This may be colored to suit the fancy, molded into tiny balls and dipped in chocolate. Sweet potatoes may be used instead of the Irish ones for variation.

#### Bran Taffy

Two cups granulated sugar, 1 cup brown sugar, 1½ cups corn syrup, 2 cups molasses, 1 cup water, are stirred constantly until a little dropped in cold water is brittle, 252 F. Then add ½ cup butter, ½ teaspoon salt, soda the size of a pea, cook to 254 degrees. Remove from fire, add 2 cups bran, and mix well. When cool enough to handle, pull until light and creamy, cut with scissors.



Little Miss Four-Year-Old Who Has Been Punished for Playing in Water Cannot Understand Why Mother teaches her to Help With the Dishes

## Keep Winter Vegetables Tempting

OUR choice of vegetables is necessarily rather limited in the winter months, and we long for the fresh green things of spring. It is remarkable, however, that just a few variations in the methods of cooking the common vegetables such as cabbage, carrots, and sweet potatoes, will make the family sit up and take notice. Following are some recipes which have found favor in my own household.

### Creamed Onions With Carrots

Wash, pare, and cut into small pieces, five medium sized carrots, slice two good sized onions and boil together until tender. Blend together two tablespoons of butter, and two of flour and add gradually one cupful of milk. Season with salt and pepper and let come to a boil. Drain the onions and carrots and stir into the sauce. Serve hot.

### Dutch Cabbage

This is an especial favorite at my house. Place a layer of bread crumbs in a pan and season, then a layer of cabbage, another layer of bread crumbs, cabbage, and lastly bread on top. Then slice pork or bacon and lay on top. Cover with milk and bake until nice and brown.

### Glazed Pumpkin or Squash

Pare and cut the required amount of pumpkin into small squares. To each square add one teaspoonful of corn syrup, dot with bits of butter and bake in a slow oven until tender and glazed.

### Deviled Vegetables

Cut into cubes cold cooked parsnips, carrots, beets, onions, and potatoes. Have prepared in a frying pan some hot pork fat in which has been mixed a tablespoon of prepared mustard, one-half teaspoonful of powdered sage, and pepper and salt to taste. Pour the prepared vegetables into this, and stir constantly until all have become brown.

### Southern Style Beets

Wash beets and boil until tender, drain and remove skins, and slice. Canned beets may be used. Add one teaspoonful of flour for eight medium sized beets, one tablespoonful butter, two tablespoons vinegar, and one-half cupful water, season to taste with salt and pepper.—Mrs. L. F.

## MAKE YOUR SPRING FROCKS



No. 947—The Chic Jacket Ensemble. Designed in sizes 14, 16, 18, 20 years, 36, 38, and 40 inches bust measure. Size 36 requires 3 yards of 40-inch material with  $\frac{1}{4}$  yard of 18-inch contrasting for dress with  $2\frac{1}{4}$  yards of 40-inch material for jacket.

No. 700—One-Piece Sports Dress. Designed in sizes 16, 18, 20 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires  $2\frac{1}{4}$  yards of 40-inch material with  $\frac{5}{8}$  yard of 27-inch contrasting.

The price of each pattern is 13c. Send an extra 13c with your order and a copy of our Spring and Summer

Fashion Catalog will be sent to you. Address your orders to the Pattern Department, Michigan Farmer, Detroit, Michigan.

## NOTHING TO DO TILL TOMORROW

NOTHING To Do Till Tomorrow" was the title of the three act play given by a group of eleven women from Coopersville before the Home Economics Section during Farmers' Week at Michigan State College.

Mrs. Ruth Vandergrift, author of the play, in the role of Louise, a city-bred, society girl who had married a farmer, succeeded in convincing her aunt and friends that rural housekeeping is not all drudgery and endless labor after all.

In the first act, "Aunt Mary" pays a visit to the country home of Louise with a picture in her mind of Louise buried in the work of the farm. To her astonishment she finds Louise an able manager with ample time for leisure—due to the ideas of better homemaking which she has received through instruction given by the extension service of the college. Louise not only has time for entertaining her aunt but also to assist a neighbor with some of her problems in meal planning and management.

Chorus numbers by the entire cast added local "hits" and reflected also some of the project instruction given. Especially clever was the one entitled "Use Whiting." Violin selections by Mrs. Kathryn Titus accompanied by Mrs. Minnie Wolcott at the piano were enjoyed.

The play was cleverly written and well portrayed the service which is available to the homemakers through extension group instruction.—M. A.

## NUTRITION SCHOOLS GAINING RESULTS

LEADERS in home nutrition at Eastport, Antrim County were delighted when the two school girls whom the specialist had scored on their health standards at the previous meeting came back to report their accomplishments. The specialist had recommended more milk, more vegetables, and cod liver oil. Since both girls were underweight. During the month these suggestions had been followed with the result that one girl had gained two pounds, and the other three. Both were much better in general appearance as well.

Mrs. Margaret Ecklund, local leader in Charlevoix County is adopting practices suggested with good results. Her entire family is taking cod liver oil during the winter and she reports fewer colds than ever before.

A woman who visited a nutrition meeting not only joined the group but took her three children to the family physician for thorough health examinations. In one case the child needed glasses, while another had diseased tonsils. The mother was not aware of either condition, which she promptly had corrected.

Instead of the late suppers at their community meetings, several nutrition groups in Saginaw and Ingham Counties have voted to serve simple, well balanced meals at supper time.—M. A.

## BREAD TROUBLES

Will some one kindly tell me what is wrong with my bread? The sponge raises fine at night but falls before morning. It has a sour smell, raises when put in loaves but falls when put in the oven. I would also like directions for making a starter.—Mrs. F. C. G.

There are a number of things which might cause this trouble in bread. Would some of our readers who make bread help Mrs. F. C. G.? Just drop a card to this department.—Martha Cole.



## Your Road Leads to a "Farm Service Hardware Store"

It is a comforting feeling to know that not far from your farm home you will be able to find a "Farm Service" Hardware Store. Your road leads to one. In case of emergency for machinery repairs and for the many different kinds of supplies that you need to keep your farm going from day to day you will find there a friend in need!

When you go into one of them you know that it is with the privilege of "seeing before you buy." "Farm Service" Hardware Men want you to come in often to talk about the use and care of tools, heating equipment, paints, builders' hardware and equipment of most every kind. The more you study what is offered in your local "tag" store, the more easily you will see that it is economy and good business for you to purchase everything there. Your money will go farther because it buys, first of all, dependable quality, and, second, because everything that you buy is backed with the reputation, the service and the responsibility of one who is virtually your neighbor. Next time you drive to town, stop at a "Farm Service" Hardware Store and get better acquainted. It will pay you.



Look for the Sign of the "tag" in the window.



## You Can't Plant a Weed and Grow an Oak

The weed grows faster, but the oak endures. Get-rich-quick schemes are profitable only to the promoters. You can't make a fortune overnight with National Loan and Investment Company, but you can get the safety and profit which assured financial success requires.

This Institution has served Michigan people for 39 years without a loss and recently paid the seventy-seventh consecutive dividend.

You owe it to your future, your family and yourself to save. Have you put by anything this week?

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Detroit's Oldest and Largest Savings and Loan Association  
Under State Supervision

SEND FOR  
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TRY a Michigan Farmer Liner to sell Your Poultry, Real Estate, Seeds and Nursery Stock and Miscellaneous Articles. See Page 289 for Rates.

## You Are Invited to Come To Eastern Oklahoma

*The Inland Empire of Undeveloped Resources*

Altho less than 21 years old since admitted to statehood, Oklahoma stands well to the front in agricultural production.

The Western half of the state was opened to settlement first, the Eastern portion being reserved for occupancy by the Five Civilized Tribes of American Indians.

Later, as the Indian has adopted the manners and customs of his white brothers, the surplus lands have been sold and are being brought into cultivation.

The Eastern half of Oklahoma probably has greater resources of agriculture, oil, gas, zinc, lead, coal and lumber than any other equal area in the United States.

Almost in the geographical center of the nation, with easy and quick access by rail or hard-surfaced road to such market centers as Kansas City, St. Louis and Chicago; only a few hours run by rail or motor car to gulf export harbors; with the teeming urban population of Tulsa, Muskogee, and other fast growing cities, we have an unsurpassed market for all the products of field, garden, orchard and dairy.

Alluvial valley of unfathomed fertility—undulating prairies of black limestone soil—wooded hills and ridges specially adapted for growing peaches, grapes, and other fruits—limpid streams stocked with many kinds of fish—the home of the quail, the winter feeding ground of countless wild fowl—this is a panoramic view of Eastern Oklahoma.

Based on production values official records show that farm lands can be purchased here, now, at a lower price than in any of the surrounding states. Located far enough south to escape the long, dreary winters of the north central states, not so far south as to encounter the dampness of the lower Mississippi valley, we have here an all year climate that makes life worth living.

We have room for many more thrifty, energetic, intelligent farm families, and we therefore earnestly and cordially invite you to

COME TO EASTERN OKLAHOMA

National Colonization Company

COUPON

NATIONAL COLONIZATION CO.  
Room 122, No. 14 E. 3rd St., Tulsa, Okla.

Gentlemen: Please send me at once, free literature and price list of your Eastern Oklahoma farm bargains.

## When Company Comes

QUITE often unexpected visitors come to give us a happy surprise and quite as often we invite someone to dinner or supper at the last moment. On such occasions I want my company to do just as I would like to do for them under similar circumstances, come right out into the kitchen and help. I tie them up in a big kitchen apron and what a good social time we have. Though we may forget to salt or flavor something and things aren't just right, what do I care. A kitchen friendship is worth more than a parlor one anytime!—Mrs. L. R. A., Ionia County.

The hostess surely wants her company to enjoy themselves and feel comfortable. I refer to mental comfort as well as physical comfort. I think the best way to manage this is to consider the vocation and temperament of one's guest. The person who works in an office or at any inside work will enjoy the privilege of gathering flowers from the garden or wild flowers from the near-by woods, and arranging them in vases about the

meal is so elaborate that it requires the women to miss the program in order to prepare and serve the food.

The specialists point out that the variety of foods should be limited, since great variety is not necessary to meet food requirements, and entails too much work for the foods committee.

Three menu suggestions for community meals made by the specialists are:

1. Escalloped ham and potatoes, cabbage and carrot salad, whole wheat bread and butter sandwiches, canned fruit, cake, cocoa or milk.

2. Baked beans, vegetable salad, brown bread and white bread sandwiches, canned fruit or ice cream, cookies, cocoa or milk.

3. Vegetable stew, cottage cheese or meat sandwiches, celery, baked apples, cake, milk or cocoa.

## For Our Little Folks

### STATE SECRETS

Its capitol's Atlanta Gay,  
And cotton is its king;  
The Queen's a peach,—a peach I say,  
Now guess like anything.



Mrs. Anna Knickerbocker of Colling, Michigan, with the link cat she shot this fall. Her daughter caught the white weasel.

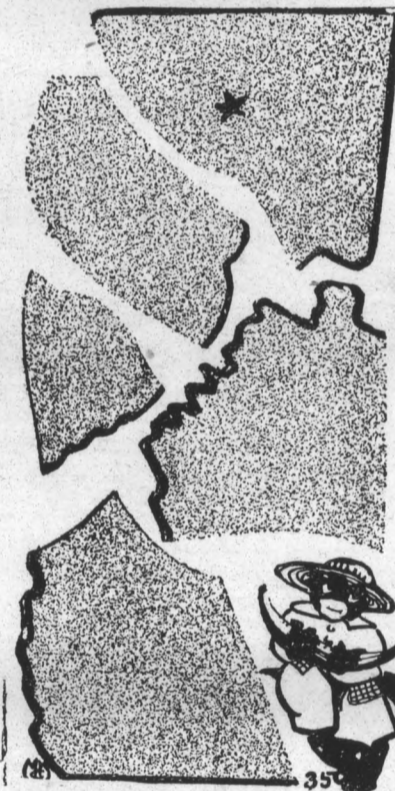
house. If you have a friend that likes to cook, but seldom gets the chance, just put a pretty apron on her the next time she visits you and set everything out for her to mix a cake or a salad. Be sure she has all materials necessary and then leave her right alone.—Mrs. L. R. K., Lapeer County.

Last summer I was a guest for a week at the home of a girlhood friend. The very first day I asked her if there was something she wanted done and had been putting off for want of time. Without further urging she brought out a quilt that she had been wanting to quilt for her daughter. We put the quilt on the frames and when there was nothing else offered, I quilted. My hostess would come in at times and quilt a few minutes. In the course of three days we had the quilt finished. My hostess was most grateful to have that job out of the way and I had the pleasure of thinking that I had really been of some help to her.—Mrs. E. P. C., Lake County.

### BLAME THE WOMEN IF AUDIENCE DOZES

SPEAKERS who address audiences which have just eaten meals served by "the ladies of the community" and who find their audiences sleepy and unresponsive may blame the ladies who served the meal, according to the nutrition specialists of the home economics extension department of Ohio State University.

"If a menu is planned, and only those foods planned for are served, the complaint of the speakers will be done away with, and much time and labor will be saved for those who are preparing the meal. Too often the



The pieces of this puzzle when correctly put together, make a map of the state which this verse describes. The star indicates the capitol. When you have solved the secret of which state this is, write me all you can about the state and its capitol.—Aunt Martha.

The answer to last week's secret was Tennessee and its capitol is Nashville.

### WHO AM I?

MY legs are proportionally shorter than any of my flying friends and I have two toes pointing forward and two backward instead of three forward and one backward like other birds.

With my straight chisel-like bill, I drill holes in the bark of trees in search of insects and spear them with my long barbed tongue.

My coat is grayish brown. There is a scarlet band across the back of my neck and a black crescent on my breast. My wings and tail are a beautiful golden yellow, tipped in black. Have you ever seen me and can you tell my name?

The answer to last week's guessing contest was the "crow." How many of my little readers guessed rightly?—Aunt Martha.

## STOP YOUR CHICK LOSSES WITH A MARIETTA BROODER HOUSE



**STURDY** simple round construction. Perfectly ventilated and fitted with special, scientific window lights that admit the vitalizing, bone-building Ultra-Violet Rays of the sun. Give your chicks a chance to live and grow. Get all the facts about this remarkable brooder house and special "purchase out of profits plan." Mail the coupon now.

## MARIETTA BROODER HOUSES

Memo to Marietta Sile Co.,  
Dept. M, Marietta, Ohio.  
Send me complete information on Marietta  
Brooder Houses and "pay" out of profits  
plan."  
Name .....  
St. or R. F. D. No. ....  
Post Office .....

**LAKEVIEW BABY CHICKS**

**Bred for Profits**  
Quality-bred and quality-hatched Lakeview chicks grow rapidly into real money. World's best strains in our supply flocks, all Michigan accredited—that means business. Officially called, state inspected. Official records up to 252 eggs at Michigan egg contest, 1925. Silver cup winners, Holland fair, 1927. 215 egg hen at Mountain Grove, Mo., 1927.

**Get Big FREE Catalog**  
Gives descriptions of strong, vigorous Smith Hatched Chicks of famous Leghorn strains, also Barred and W. Rocks, Buff Orp., W.-Wyan., and S. C. R. I. Reds—all money-making breeds. Make reservations early—1c per chick books your order. We will ship C. O. D.

**LAKEVIEW POULTRY FARM**  
M. J. Kole, Prop.  
Box 6, Holland, Michigan  
Member International Baby Chick Association

**A Solid Foundation for Success with Poultry**

**BOS QUALITY CLASS A CHICKS**

From healthy heavy layers of large eggs. S. C. English White Leghorns, Brown Leghorns, Anconas, R. I. Reds and Assorted chicks at reasonable prices. No money down. Pay full amount 10 days before chicks are shipped or C. O. D. Special discounts. 100% live delivery postpaid. Catalogue free.

**BOS HATCHERY** R. 2 M. Zeeland, Mich.

## Where Else Can You Make Nearly 200% Profit in 3 Weeks!

A 5c egg, plus a half cent for incubation expense, produces a 15c chick in 21 days.

## AUTOMATIC INCUBATORS

make money for you whether you sell chicks or raise them. Automatic Egg Turning Trays. Can't overheat or underheat. Automatic ventilation and moisture control. Big hatches of strong healthy chicks. Fourteen models Automatic Incubators—Eleven models Automatic Brooders.

Send for big free catalog and complete information.

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Established 1912 DELAWARE, OHIO  
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## UP-TO-DATE POULTRY EQUIP- MENT

ONE winter some fifteen years ago during a protracted period of zero temperature, the writer hung a lantern in the poultry house during the night to alleviate somewhat the frosty condition therein. Upon going in at break of day to remove the lantern, I would find the hens off the perches and happily engaged in scratching in the straw litter to the accompaniment of a musical chorus sweet to the ears of the poultryman. More than this, I found the biddies already on the job of daily egg output. While I have no record of the results for that season, I do recall that the hens shelled out the eggs in great shape.

This incident long past was called back to memory upon reading a newspaper item saying that a certain poultryman had arranged the electric lighting of his poultry buildings so that by pressing a button on the wall of his bedroom the lights were turned on at 5 A. M. with no getting out of bed to do it. A bright idea and some little stunt if you ask me.

As I understand it, this electric lighting of poultry houses to extend the length of working day for fowls, especially layers, is a profitable proposition where an electric current is to be secured. As for us, we will need to get along with the old lantern until the time when the mechanical "wizard" gives us electric current by wireless. What! "Impossible." Who dares to say "impossible" with all the present age marvels in evidence. Not I.—N. M. Edgerton.

## COD LIVER OIL

I noticed in a recent issue that cod liver oil should cost \$3.00 instead of \$2.00. I recently bought some at one of the poultry supply houses here at \$1.35 per gallon. Is there anything in the cheap stuff that is of any value as a poultry feed since you say that vitamins A and D are what is required in cod liver oil? Are these vitamins contained in the \$1.35 kind? —M. J. R.

The wide publicity given the food value of cod liver oil has caused doubtful kinds of cod liver oil to be put on the market. Professor J. A. Hannah, in his talk on chick feeding during Farmers' Week, said that the cheaper oils were often cotton seed oil to which a small amount of fish oil had been added to give it a fishy odor. He said further that there were only five companies in the United States that put up cod liver oil for poultry feeding which comes up to the standard required for such purposes.

There are two things necessary in good cod liver oil. One is freshness and for that reason cod liver oil should be bought in sealed containers. A container ordinarily should not be left open more than two weeks as otherwise the oil will become rancid. The other important factor is that the oil be high in the vitamins A and D for these two vitamins make cod liver oil so valuable.

From good authority we have it that cod liver oil at retail the cost of manufacturing and the handling charges make it impossible to sell the oil much less than \$3.00 per gallon, but even so we believe the good oil is the most economical as the use of one-half or a third as much of the good oil will bring it down to the cost of the cheaper oil.

The general chick requirements for cod liver oil is from two to four pounds of the oil to one hundred pounds of mash, but with the high grade oil one can get efficient results by using as low as one pound to one hundred pounds of mash.

For a practical bulletin on raising baby chicks write the Poultry Department, Michigan Farmer, Detroit, Mich., enclosing a self-addressed stamped envelope.

## The Simplest and Cheapest way to raise young chicks



**1 FEED  
FROM START  
TO FINISH**



## AMCO STARTING AND GROWING MASH



**TO START** their growth, young chicks need a mash that is easily digested, containing proteins of high quality, and certain minerals. To carry them through to quick maturity, economically, they need *these same proteins and minerals*, only in larger quantities. A special chick starter is a needless bother and expense.

Chicks grow vigorously on **AMCO STARTING and GROWING MASH** from their first feeding to maturity. As they get older and run about more, they need feeds which furnish energy (wheat, corn) and these are best supplied in Amco Scratch Grains.

**AMCO STARTING and GROWING MASH** grows bigger broilers and better pullets because every feed in it contributes to the needs of the chick. It is rich in dried buttermilk, the best insurance of rapid, sturdy growth and low mortality. It contains an abundance of minerals and vitamins. It supplies ample animal proteins. It is of fine, flaky texture and does not become pasty. It is mildly laxative. *The chicks get more out of this mash!*

See your Amco Agent or write to the address below for formula and price. Compare the price with that of a closed formula chick starter.

## AMCO FEED MIXING SERVICE

AMERICAN MILLING COMPANY

EXECUTIVE OFFICES: PEORIA, ILL.

Plants at: PEORIA, ILL.; OMAHA, NEB.; OWENSBORO, KY

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## HUBER'S RELIABLE CHICKS

**Our 19th Year** For 18 Years we have culled our flocks for egg production and quality.

If better chicks could be hatched for the money we would be hatching them. There are reasons why we have thousands of satisfied customers, and that we have never been able to supply all the demand for our chicks in the past eighteen years. Our Reliable Chicks possess high egg producing qualities. Every bird in our breeding flocks banded and record kept. Fine Illustrated Catalog free. Send us your order and you will be another one of our satisfied customers.

**Chicks Sent C. O. D. If You Wish. Get Our Plan**

Get our special combined offer on chicks, brooder stoves, and brooder houses. We hatch twelve varieties. Fifty thousand chicks per week. Valuable Book on Chicks and Poultry free with each order of \$10 or more.

**HUBER'S RELIABLE HATCHERY, EAST HIGH STREET, FOSTORIA, OHIO**



## Increase Your Profits

With Arrowhead Poultry Farm Chicks

S. C. Wh. and Br. Leghorns, Br. and Wh. Rocks, R. C. and S. C. Rd. I. Reds, Wh. Wyandottes and Buff Orpingtons. Baby Wh. Pekin Ducks, Geese, and Turkeys. Our Br. Rocks leading the heavy breeds at the Chicago Int. laying contest (last report). Folders and prices on request.

**Arrowhead Poultry Farm Hatcheries**  
at Montrose, Birch Run and Lapeer, Mich.

## Chicks - Hatching Eggs - Pullets

**MAKE 1928 YOUR MOST PROFITABLE POULTRY YEAR**

You can do it with S. C. White Leghorn chicks from our high average breeding flocks. Demonstration flocks of over 300 birds produced an average of 184 eggs each. All are large size birds with large lopped combs. **WE GUARANTEE SATISFACTION.** With each order for chicks we will furnish you our proven, successful, Care and Feeding Method, based on our fifteen years of practical breeding experience. Write for **FREE CATALOG** and prices before ordering.

CO-OPERATIVE POULTRY FARMS

IL. 4.

ZEELAND, MICHIGAN

# More Chicks Will Be Chickens



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BY RYDE & CO.

## When Fed Ryde's "Startrite" Chick Food

NO need now to fear poultry losses due to death of baby chicks. This safe starting food contains every element necessary to rapid, uniform growth, and in easily digestible form. One pound of Ryde's Startrite Chick Food will raise every normal chick and bring it well past the danger period, proper care being given.

After six weeks, during the growing stage, feed Ryde's "Hav-To-Grow" Chick Mash with Buttermilk. This unequaled complete feed combines the

best growing feeds, correctly balanced with necessary minerals, and buttermilk in abundance. Makes broilers or layers in double quick time.

### "Make Them Lay"

To make that hen "lay an egg a day" feed Ryde's "Hav-To-Lay" Egg Mash with Buttermilk. It supplies egg-making elements for greater egg production in one convenient-to-feed, complete food. Contains choicest ingredients—not a "by-product." Economical.

## RYDE'S FOR RESULTS

Poultry raisers are assured that better ingredients cannot be had at any price. Every bag of Ryde's feeds is guaranteed to give satisfactory results. Remember the bag. Be sure you get the genuine.

Your dealer stocks Ryde's Feeds in 25, 50 and 100-pound bags. If not, write us. Complete feeding directions are included with every bag.



**Free** Children and grownups alike say the Ryde Chick Game is the best ever! This interesting and instructive game, including play board, spinner and model chicks, will be sent free (worth 75c) upon receipt of your name and address. Include 10c to pay postage and packing. Address Ryde & Co., Mrs., 5434 W. Roosevelt Rd., Chicago, Ill.

## HOLLAND HATCHERY

It will pay you to investigate one of Michigan's oldest and best hatcheries. Twenty years' experience. Every chick hatched from rugged free range breeders officially accredited by inspectors supervised by Michigan State Poultry Improvement Association. Large percentage of business to satisfied old customers. White Leghorns (English type and American). Barred Rocks, Anconas.

### "Never a Bum Lot in Sixteen Consecutive Years"

so writes a customer who has been purchasing chicks from us for sixteen consecutive years. Some record, you'll agree. Your Michigan Accredited chicks bought of this old reliable concern with an established reputation for square dealing are sure to please. Get our Free catalog that tells all.

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## HIGHLAND LEGHORNS



Every breeder carefully selected for size, type, and egg production. Mated to males of 200 to 300 egg pedigree ancestry.

### CHICKS SHIPPED C.O.D.

See your chicks before you pay for them. We know you will be pleased and we are willing to take all the risk. This assures you of 100% live delivery and shipment exactly when you specify.

### SPECIAL DISCOUNT NOW!

On all orders for chicks booked this month we give a big discount. Get our new valuable catalog which gives complete details. Write for copy today.

Highland Poultry Farm, R. 9, Box C, Holland, Mich.

## BUY RECORD OF PERFORMANCE CHIX

7 Varieties of Male Matings Up to 314 Egg Record.

Also 15 varieties of purebred chicks from selected flocks, including direct Morgan-Tancred 313-egg-record, blood-tested, trap-nested White Leghorns. Chicks 9c up. Breeding Cockerels. FREE catalog gives big discounts on chicks, hatching eggs, brooders. Don't fail to try our high production quality chicks! We guarantee them to satisfy! ORDER NOW! LAWRENCE HATCHERY Grand Rapids, Mich.

## WOLF SELECTED CHICKS

CHICKS C. O. D. SEND ONLY \$1.00

Our chicks are from leg-banded stock selected by expert poultryman. You can feel safe for you know every chick is up to highest standard for egg production and breed type. Get our special wholesale price on brooder stoves when bought with chicks. SEND FOR OUR BIG CATALOG. It tells all about our pedigree males and special pen matings. Also gives details about our high producing utility birds. Valuable book free with each order. Prices reasonable. Write today.

WOLF HATCHING & BREEDING CO.

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GIBSONBURG, OHIO



## CHICKS

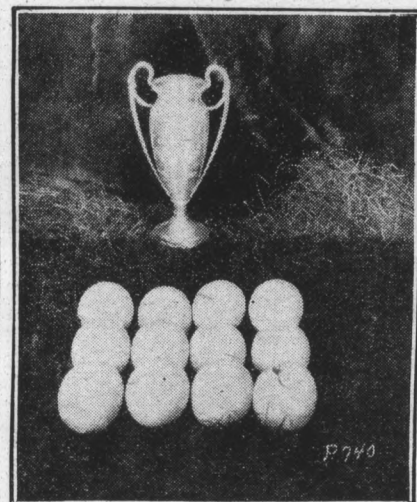
Assure you large white eggs and lots of them, as the Karsten's are the breeders that offer you chicks from breeders from trap-nested stock and at prices you pay for common Leghorns. Send for Karsten's new Leghorn book written by men who have been breeding S. C. White Leghorns for years and who know "Their Chickens." This free book fully explains Karsten's Famous Feed Formulas and gives full instructions on feeding and care of chicks and laying stock.

Karsten's Farm, Box 17, Zeeland, Mich.

## STOP BAD HABITS

BAD habits are a sort of disease. Like other diseases in the poultry flock, prevention is better than cure. They usually result from improper feeding, a lack of some sort in the diet, or from idleness. In many cases time hangs heavily and the birds do not know what to do with themselves, consequently, they start pulling one another's feathers or eating eggs. As a rule, these habits are not formed because the hens have a taste for fresh eggs or want the blood at the roots of the feathers but the habits are learned by accident. Later the taste is acquired and then it is another story.

Considering first the question of feather-pulling, it may be said that this usually results from idleness. When the birds are kept closely housed, this vice becomes most common. If there is available ample scratching room and the grain is fed in deep litter, the birds should spend most of their time



The Michigan Farmer Sweepstakes Cup and A. B. Covey's Eggs That Won It at Farmers' Week Egg Show

when not laying searching for grain. Plenty of sunlight and fresh air tend to keep the litter dry and pleasant to scratch in. See that these elements enter into the conditions of the quarters for the laying hens during the winter season, when vices are most easily acquired. One of the best kinds of litter and one available for most poultrymen, is a mixture of dry planer shavings and straw. Straw alone holds too much moisture. Dry shavings will absorb a good deal of moisture and still remain in good condition. If it is necessary to close the house at night because of weather conditions, be sure all windows are open during every sunny day. Let the sunlight enter unrestrained by passing through window glass, so, if glass is used, see that the sashes are made so they can be removed. Small windows at the rear of the house are useful in that they let in the light, so the birds will not pile all the litter in the back part of the building.

Egg-eating results from scratching in the nest. The bird is in search of something which she requires for the diet. An egg is broken and she eats it. The taste is acquired and the process is repeated. One thing we should always do is to see that the nest-boxes are dark, that is, the entrance should be on the side away from the light; also, the entrance should be just large enough to admit the bird. Large open nests are not desirable.

To avoid formation of these habits, in addition to keeping the birds busy, there should be a sufficient supply of animal food in the diet. The hen is taxing herself to make eggs, but perhaps her diet is a little shy on the animal part of the material. The ancient Israelites were required to make bricks without straw, and often we are employing the same sort of tactics with the laying hen. Do not let her lack for the animal part of the material. Once these habits are acquired, they are difficult to break.

If a few birds are noted which have learned to pull feather or eat eggs, the best thing to do is to remove them at once. These habits spread rapidly if not checked at the start. Remove the birds and send them to market, if necessary. Better sacrifice a few good layers than spoil the whole flock. Sometimes the immediate furnishing of sufficient animal food will stop the trouble. We have hung pieces of salt pork around the mash hoppers. The birds pick at this and forget to pick their feathers. Once the habits are well learned, however, they are difficult to cure. Better prevent them by feeding an adequate diet and keeping the birds busy.—C. H. C.

## WHY HENS CHOKE

Will you please tell me what is the matter with our hens. Most every day one will get behind some thing and will seem to be choking for breath. Their combs are dark red and a sort of brown substances runs from their mouths. The hens get ground oats, bran, corn meal, and meat scraps as a mash; whole corn and oats for scratch feed. They also get oyster shells, pearl grit and sand, lots of fresh water, and free range. Most of the hens live from 3 to 5 hours after I find them. They are quite heavy, about 4½ to 5 pounds, especially for White Leghorns.—Mrs. C. M.

The hens that choke may have been eating chunks of meat, large peelings, or other bulky material which has become lodged in the throat. Hens sometimes choke from trying to swallow field mice. Examine the throat as deeply as possible. See if the yellowish cheesy canker has formed about the windpipe causing slow suffocation. Bronchitis and pneumonia also cause difficult breathing. A postmortem examination of the internal organs may give some further clue to the trouble if it is due to disease.

## DESTROYING HEN LICE

I have a flock of pullets and they got lice. Some tell me that I should put sulphur in the water. I have tried everything and don't get help. Will you please tell me what to do?—F. M.

Placing sulphur in the water might not be the best way to keep lice from hens. Mix equal parts of blue ointment with low grade vaseline. This can be purchased at most drug stores. Rub a bit of the ointment about as large as a pea into the skin of the fowl beneath the vent. Place a small dab on the skin under each wing and rub it in thoroughly. This will usually keep hens free from lice for about six months. Sodium fluoride is one of our most useful louse powders and can be purchased of mail order houses and drug stores. Pinches of the powder are placed around the feathers of the bird and the lice are soon gone. Red mites on the perches are a more serious pest than the body lice. The mites suck the blood and reduce the vitality of the fowls. Lice make the birds very uncomfortable. Paint the perches with commercial disinfectant, carbolineum, kerosene oil, or the old engine oil from the crank case and the mites will be destroyed for varying lengths of time.

## POSSIBLY TUBERCULOSIS

I wonder if you can suggest a remedy for my Rhode Island Red hens. They first appear unthrifty and their heads become pale and they are weak but still eat though do not hunt for it. On opening one, the liver was found to be as large as one's hand and a dark green, the intestines are covered with small, hard bunches or clusters about the size of a pin head and white or transparent in color.—Your Weekly Reader.

The symptoms described indicate that the Rhode Island hens may have had tuberculosis although scientists tell us that a laboratory examination is necessary to definitely determine that disease. If you have a valuable flock and constant losses are occurring



## "Why don't my Hens Eat more Pearl Grit?"

We have had this question asked time after time. The answer is simple. "Hens don't need any more than they eat."

### The Proof is Here

**Maryland Experiment Station** in comparing Lime Stone with Oyster Shell found: "The Limestone pen consumed 43% less material but laid 20% more eggs."

"Limestone can be safely used as the sole source of Calcium for growing chicks and laying hens."

**Kentucky Experiment Station** found that Limestone Grit produced by far the most eggs and the hens ate much less of the grit thus making a gain both ways.

## PEARL GRIT

Is Carefully Selected Limestone

It is clean and healthful. It is pure limestone, high in Calcium. It furnishes the necessary grinding action in the gizzard, also insures ample supply of Calcium for bone and egg shell structure. A small amount of Pearl Grit will do more good than larger amounts of other grits and shells. "Less grit to buy and more eggs to sell" is borne out in actual practice when you use PEARL GRIT. Made in three sizes: For Chicks, Growing Birds and Laying Hens.

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PIQUA, OHIO

We Have Dealers Everywhere  
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## FREE Brooder Book

Tells how to raise more chicks and make more money. Gives full details of famous American Brooder to which leading breeders on Pacific Coast, including holders of world's laying records, attribute phenomenal success.

Automatic heat regulation. Self ventilation. Direct oil burner.

Saves time, money and fuel.

Breeders say American Brooder is greatest value on market. Write today for FREE Catalog.

Coal, gas, oil and electric models \$7.50 to \$70.

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Send for this 1928 Brooder Book—see the dollars our New Cut Prices save you. Two big well-known firms—Wisconsin and Ironclad—have consolidated—to cut costs and sell at lower prices. Don't buy until you get this money saving book. If incubators—14 Brooders to select from.

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Tells how to get eggs in winter; how to stop chick losses. 30 day trial offer.

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**BE SURE**

To get our free Catalogue and prices on DEAN QUALITY CHICKS. White Leghorns, Barred and White Rocks, R. I. Reds, White Wyandottes. All Michigan Accredited. Some Certified. Established 1911—Better this year than ever. **DEAN EGG**

**FARM & HATCHERY, Box 8, Birmingham, Mich.**

**S. C. W. Leghorn Baby Chicks**

Buy Mich. Accredited Baby Chicks from Michigan's largest poultry farm. We buy no eggs to put in our incubators but produce them on our own farm from selected hens mated with 50% 200 to 336 egg Tancered males, pedigreed. All breeders have been bloodtested for BACILLARY WHITE DIARRHEA for the past 4 years which insures you chicks practically free from this dread disease. No better chicks at any price. Only one grade.

**S. HARKEMA SONS, R. 1, Holland, Mich.**

**HILLSIDE HATCHERY**

Chicks. Genuine Tom Barron English White Leghorns, large type, overlaying combs, with egg laying qualities. Non-setters Barred Rocks from M. S. C. stock. 1928 flocks, headed with cockerel whose dams have official trapnested records 203-233 M. S. C. egg-laying contest. Free circular explaining our 1928 special, surprising you, low price.

**HILLSIDE HATCHERY, HOLLAND, MICH., R. 3**

it will pay to have a veterinarian inspect the birds and make recommendations. In the meantime isolate or kill all sick birds and give the remainder a balanced ration in a house as well ventilated and sunny as possible.

## FARM FLOCK MANAGEMENT

(Continued from page 257)

when the pullets lack growth and maturity and do not lay.

It pays to keep records. It is necessary to know the cost of production at all times to locate mismanagement if it occurs. The poultryman should know the cost of producing young stock. Sometimes in the north it pays to buy eight to ten week old pullets rather than raise late hatched pullets. When the money lost in a poultry business is down in black and white, the owner is very apt to make a change in methods.—K.

## BREEDING PROGRAM

IN any breeding program there are three fundamental principles which must be kept in mind. They are, first, a standard of excellence or ideal; second, constant breeding toward that ideal; and third, courageous culling from the time eggs are selected for the incubator until the time when males and females are put in the breeding pens.

Aside from the personal element of the poultryman himself, two sets of factors control results. The first set can be grouped under the term heredity—those causes which are internal and relatively hard to control. The characteristics of an individual due to this set of factors are possessed by the individual at the time of birth, although they may be influenced a great deal by the second set of controlling factors. Inherent characters are dependent, in part, upon this second set of factors, environmental conditions and influences, under which a bird lives. Feeding, housing, and general care and management fall under environmental conditions and influences.

The most accurate method of controlling heredity is by the use of a system of individual pedigree hatching and progeny testing. Such a system requires trapnesting and carefully kept records. Birds to be pedigreed should be carefully selected and only such matings or lines which show progress towards the desired goal should be continued from year to year.

## Mass Breeding

When it is impossible to do individual pedigreeing, pen mating may be used. In pen mating, from three to five males may be used in as many pens with twelve to twenty selected females each, and the progeny from each pen may be marked so that the different lots can be identified later. The offsprings from each pen can then be observed, and the male lines continued from only those birds which show best results.

Egg production may be improved also by selecting the best individuals, both males and females, and mating them by the flock or mass method. This is the most common practice among farmers. Progress with it is slow, however, and after a time a point is reached where the average egg production increases little, if any, from year to year.—G. O. Hall.

## VITAMINS IN MILK

Skimmed milk or buttermilk in any form provides vitamin B but little if any of the others. Vitamin B is found in large amounts in all cereals and green food. Therefore, it would not appear necessary to feed milk for this vitamin alone. Although the vitamins contributed by milk are not very important, still it does carry much more than any other high protein feeds fed to chickens.

# The New DREW LINE

## COAL BURNING BROODER

### Bigger and Better for Less Money

Coal Through Hover

Hinged Canopy Section

Automatic Thermostatic Control

At last!—It's here! Just the kind of a coal-burning Brooder you have long been waiting for—at the price you want to pay. For simple construction—for ease of handling—for accurate heat control—and for economy of first cost and future operation—this remarkable new Drew Coal-Burning Brooder will surpass anything on the market. We want you to compare it point by point with others—see its many new convenient features—for if you do, you will agree with us that for fine quality, true value, perfect performance and low cost this new Drew Line Brooder has no equal.

### Burns Either Hard or Soft Coal—

but, the big, outstanding features which make the New Drew Line Brooder superior are:—1st It coals through the hover, without raising or removing the canopy. 2nd Every other section of the big 60 inch wide cover is hinged so you can reach under any part of the canopy at any time—easily. And 3rd—the thermostatic control of simple check and draft dampers on the stove gives an accurate and positive control of the temperature at all times.

Don't fail to get all the facts about these and other improvements on the new Drew Line Coal-Burning Brooder. Drew Line Brooders and Poultry Equipment are sold by good dealers everywhere. See them at your dealer's before you buy, or

### Write for our Free Poultry Book

If you do not know the Drew Line Dealer in your locality—write us. We will send you his name, also a copy of our valuable book, "Profitable Poultry Keeping." Tells the methods and equipment used by other successful poultrymen and describes the new Drew Line Coal-Burning Brooder fully. We send it FREE and post-paid on request. Write for it NOW.

**The Drew Line Company**  
Dept. 2009  
Fort Atkinson, Wis.  
Elmira, N. Y.

### Better Poultry Equipment For Less Money

# WOLVERINE S.C. WHITE LEGHORN

## 100% SAFE ARRIVAL GUARANTEED

# BABY CHICKS

## MICHIGAN ACCREDITED

### FOR WINTER EGG PRODUCERS

Get our Large Leghorns, the birds with large combs that produce the Large Chalk White Eggs

## Send for Our 1928 Catalog

Tells all about our chicks and breeding stock  
EGG BRED SINCE 1910

For 18 years we have specialized in the production of S. C. White Leghorns, and breed no other variety. All our time, thought, and energy in selecting and mating has been devoted to our Leghorns. You are assured of very desirable stock.

100% LIVE ARRIVAL GUARANTEED

## WOLVERINE HATCHERY AND FARMS

H. P. WIERSMA, Owner and Breeder, Dept. 3, Zeeland, Mich.

# DUNDEE MICHIGAN CHICKS

## ACCREDITED

**STOCK ALL BLOOD-TESTED FOR WHITE DIARRHEA FOR THE PAST FOUR YEARS.**

You can save money by ordering Dundee Pure-Bred, Mich. Accredited and Blood-Tested Chicks. We hatch B. P. Rocks, R. I. Reds, and S. C. White Leghorns. Write for 1928 Catalog giving all details of our matings and full directions on how to raise baby chicks for greater profits. We guarantee 100% live delivery.

### DUNDEE HATCHERY & POULTRY FARMS — DUNDEE, MICHIGAN

# R. O. P.

## CHICKS

# Our Pure Blood

—SELECTED CHICKS  
—BIG EARLY ORDER  
—DISCOUNTS—15 VARIETIES

This year we introduce to you our Record of performance pedigree male matings up to 316 egg records direct from British Columbia and Ontario, Canada, including bloodtested, trapnested pedigree White Leghorn matings, 220 to 313 egg records. Winners of many prizes. Every bird standard culled. Get FREE circular of chicks, hatching eggs, and brooders before buying elsewhere. Broiler chicks 9c up.

### Beckman Hatchery, Box 57, Grand Rapids, Mich.

SERVICE	PURE BRED BABY CHICKS					QUALITY
100% Live Delivery Guaranteed.	Send for Free Catalog and Price List					
	Prepaid Prices for	25	50	100	200	500
White Leghorns, Black Minorcas		\$3.50	\$6.50	\$12.00	\$23.50	\$57.50
White, Barred and Buff Rocks						1000
Single and Rose Comb Reds		3.75	7.25	14.00	27.50	67.50
White Wyandottes, Buff Orpingtons						130.00
S. S. Hamburgs, 16c.	Assorted Breeds, 10c.	Member	A. B. C. P. A.	Our 22nd Year		
THE LANTZ HATCHERY		BOX D		TIFFIN, OHIO		

# OUR PAGE

## The Present Generation

*Some Parents Have Their Say*

WE have taken the Michigan Farmer for eight years and I have watched the letters of the parents and the young people. I see where you have given the parents a chance to have their say. Although I have never written before I would like to say a few words.

Why does this generation take such an unfair advantage of parents? They go when they please, come when they please, get up in the morning when they please, and go to bed when they please. My children have done this



The art of building snow houses which will stand and yet not be dangerous is worth mastering. The Eskimos test the snow to see if it is of right quality before cutting out the circular blocks for making the well rounded roof and walls. The more the snow thaws and freezes the harder the walls of the snow house will become. Philip and Alice Banker, of Chassell, get real joy out of building a snow house and then making good use of it.

from thirteen years of age up and the older they get the more insulting they are to us. They never say where they are going or where they have been. Now our children have a lovely home. We never nag nor scold when they want to go anywhere. So why should they be so deceitful towards their parents?

People have told me time and again that we are too good to our offsprings. When I was a girl I never thought of going anywhere without telling my people wherever I stayed or where I was going, and asking them if they cared if I went. If they said I should stay at home, I stayed there. Now, if we want to go anywhere even the youngest must know where we are going, and they make fun of us if we go to certain places. If we stay after ten P. M. then we are called old fools, even if we just go to a neighbor's, which is very seldom. Life is surely hard in such a household, especially where parents are considered pieces of machinery and dogs to do the dirty work while the eighteen and twenty year old sons and daughters sit and read or play the phonograph. Then they come to the table and sniff at what stands before them, but are too lazy to help cook. Everything we do is criticized by our children, but in the eyes of others we are considered most perfect. This is making a nervous wreck of me.

Please don't let W. B. get this as I sure want to see what other mothers and children say about their household and maybe our children will see it and feel at least a little remorse.—Mrs. A. B. C.

Last summer I asked a farmerette to motor with us to California. She was all happy excitement, but later, insisted that we take her pretty young daughter instead. I alone saw her tears as we left. When we returned the girl would not come. She had

joined the religious sect of volunteers and her relatives there applauded her. She and her friends wrote to her distracted mother how selfish and wicked she was to hinder Katy from winning a seat in Glory. They say her mother doesn't need her—just wants her company. Now the mother blames us and we only meant to be kind. Never again. Is the girl doing wrong?

I hear lots of women say they don't want their boy to be a farmer—its so uncertain—yet someone will have to until our inventors can make bread of stones or something. It is claimed God will perfect the earth and people and heaven will be here without any great fire at the last. "I thank you." This is G. A. B. signing off after a frequency of once a year.

"Our Page" is the first one I look at when the Michigan Farmer comes because of the interesting discussions, the clever ideas, and the glimpses into human nature which it contains.

I consider the Christmas Chest an exceptionally good feature. I hope it will be continued next year, but started sooner.

## OUR LETTER BOX

Dear Uncle Frank:

This is my last year in high school and can truly say I have enjoyed it very much even though it has consisted of late hours of study and now and then a scolding from some wise spinster. I am specializing in stenographic work as I am very much interested in it at present.

Uncle Frank, don't you think club work should be stressed more than it already is? I am a worker of a club and enjoy it more than any other work I do. Club work is not only helpful now but will be beneficial all through one's life. Cooking, canning, and sewing are things every girl can't know too much about.

The Merry Circle has gained for me more confidence in myself; more and better ways to express my own thoughts, and last and best of all, my corresponding friends.—"Merry John."

Club work is worthy of all the support that can be given it. There is nothing equal to it, either in city or country. I am glad that you take such an interest in school work, and that the M. C. has increased your confidence.

Dear Uncle Frank:

A great many of the old members have passed on and others, I see, are going. I started reading The Page five years ago and my first letter was printed shortly after. The Page, then and now, is certainly strange to itself. Then, there was no M. C. or radio fund. Very few articles were written but a lot of letters were printed. The contests were mostly Read-and-Win but new contests were being thought of all the time.

The button and card, motto, names of club and songs were added and a lot of other improvements were made. Now after three or four years have passed, the Page is entirely different. Some active member would write and his articles would become familiar to all the readers and then he would write a farewell letter and soon be forgotten. This tends to change the aspect of the page a great deal.

There have been a lot of discussions, some of them silly and others that are quite interesting. Now, I think, The Page has almost reached perfection and I am proud to be a member of the club.

I see the boys are holding their own in the club doings. I received a good many letters last year and only one was from a boy. Can you beat it?

I do so sympathize with "Rees" who cannot have a dog. I think every boy and girl is denied a character-building companionship when he or she has no dog for a playmate. Cats, calves, and chickens are all right but cannot take the place of an intelligent dog.

The desire for broad-mindedness expressed by Wilma Enyant is a most commendable one. I'd like you for a neighbor, Wilma.

Two neighboring families planned to go to town to a show. Unexpected company came to one place, so they were delayed in starting. The other family then refused to go and are still peeved. Most feuds and quarrels between individuals and many bloody wars between nations have been caused by narrow-mindedness. Many a community which has three or four empty churches today could have one well-filled one if people were only more tolerant. A great deal of family fraction could be avoided if fathers and mothers, and boys and girls, too, would only try to get the other one's viewpoint.

Here's to Uncle Frank and all the M. C.'s and G. C.'s. May the long, long thoughts of youth continue to find expression on "Our Page" and help keep us older ones youthful.—"Another Mother."

From an "old timer."—Herbert Estes.

I certainly am glad to hear from you, Herbert. When I get acquainted with young folks through their letters, I often wonder what has happened to them if I do not hear from them. Come again, old timer.

Dear Uncle Frank:

I wanted to tell you, Uncle Frank, that the Methodist Church of Owosso, where I attend, every year has a "White Christmas," and all that is received goes to the Farmington Children's Home. A certain member of the church doubles every dollar that is given, thus doubling the gift. Don't you think this is a fine way to show a Christmas and Christian spirit? The class to which I belong is planning to give ten dollars, so, you see, really in the end we will be giving twenty dollars, and every little bit helps. This home has to send away many children from its doors each year because of the lack of funds to carry on the great work.

I wish, Uncle Frank, that you would make the announcement that those who care to make clothing and toys for the small, unfortunate boys and girls may send them to you before a certain date and you will see they are distributed. I am sure the majority of the members would be in favor of the plan. Many are willing to do something but can't see any way to help and this would give them a good chance.—Zona Amos.

I think that we should make a big drive for the Christmas chest next year but I am willing at all times to receive clothing and other useful things for poor people. I will see that anything sent in will be put to worthy purposes.

Dear Uncle Frank:

Must say a few words in regard to the letters concerning smoking. For a long time I have considered it, and still I see no moral wrong. If it is done out in the open and still considered wrong by the person doing it—it is wrong.

Some doctors that I know smoke. Our family doctor does, and Lady Nicotine doesn't seem to have hurt him in the least.

Drinking, though, I consider a disgusting habit. I think that anyone who indulges hasn't any respect for anyone or himself either. I feel

ashamed for one who does—if they can't depend on themselves they might better be dead.—Ruth Jonson.

If it is wrong to do those things we only think wrong, we can make everything right by thinking it so. Smoking does not show its effects as rapidly as does drinking, but nevertheless its effects are not beneficial. Doctors sometimes have habits detrimental to health.

Dear Uncle Frank:

I notice the Merry Circle's are at present discussing Lindbergh's rank among the ten greatest men. A Modern Farmer's Daughter ranked Lindbergh first, another said this was impossible as Jesus Christ held first. But really is Jesus Christ a man? 'Tis true he wore the form of man for over thirty years, but in reality was it not only a cloak? He was the Son of God, therefore a spirit. He suffered the agonies of being hung on a cross. But was this bodily agony or the agonies of his soul? In my opinion he is not eligible for consideration in "the ten greatest men" discussion.

A Modern Farmer's Daughter is unreasonable in saying Lingbergh is the greatest for was not Columbus greater in sailing the then called Dark Seas—this great body of water entirely unexplored whose depth and largeness was unknown and was thought to be the boundary of the earth.

Columbus sailed in a sail boat without a single map or chart. Lindbergh sailed in an airplane, but with many maps and instruments at his disposal. Both accomplishments took unlimited courage and will power. Both were dangerous feats and both were finished. But in my opinion Columbus did a greater deed than Lindbergh.

Far be it from me to lower Lindbergh's glory. I think he is an ideal youth of today, one which every young person should strive to be like. With all the rest of the world I admire his courage, character, and high standards of living.—Crimson Rose.

You write a good thoughtful letter. I hope Crimson Rose isn't a Rambler. At least her thoughts are not rambling.

Dear Uncle Frank:

Now, Uncle Frank, I am going to ask you a question. Do you really think that to take a drink or smoke now and then, not too often though, is going to harm anybody? I don't think so, provided they don't indulge in these things too often. I know lots of boys that smoke, also I know some that don't, but I don't think that those who smoke have any weaker



There Are Four Generations in the J. J. Fletcher Family

hearts or are less liked than those that don't.

Here's looking for another correspondence scramble.—Just Fifteen.

Smoking and drinking do no one any good. If one smokes or drinks very moderately the harm is not as great as when the indulgence is great, but there is some harm. Also, both smoking and drinking are habit forming and in time the moderate user often becomes an immoderate one.

Dear Uncle Frank:

I have not tried for a long time to win a prize as I am so busy in school. I am janitor so I have to go early. We have had some big snow storms. The mail carrier did not come for two

days, but it is nice again and the cars plow through the snow.

I see they have discussed smoking again. I for one will never smoke or drink. It is expensive and it isn't good for anyone anyway. I bet Uncle Frank doesn't use either of them, do you? And I bet he doesn't powder and paint either. Well I have no time for a long letter this time.—Edwin Snider.

You are an industrious lad and are a good guesser besides, especially as to my habits. My bad habits do not include the ones you refer to.

#### A NEW CONTEST

**HAPPY GO LUCKY** suggested this contest and I think it is a good one to test your spelling ability. Below you will find the letters which make up five words. See if you can

#### NOTICE

SEVERAL Michigan Farmer readers have confused me with an "Uncle Frank" who is running a pony contest from a Chicago address. In order to avoid any further confusion I assure you that my only address is in care of the Michigan Farmer and that I have nothing to do with contests of that type. My sole activities are in connection with the Merry Circle.—Uncle Frank.

put them together so as to spell those words. Put your name and address in the upper left hand corner of the paper and put M. C. after your name if a Merry Circle. Write your words in the order they are given below and put each on a separate line. Put nothing else on the paper.

All the correct papers will be mixed together and ten lucky ones pulled out for prizes, which are fountain pens, loose leaf note books, and clutch pencils. All who have correct papers and are not now M. C.'s will get buttons and membership cards.

The explanation of the words follow:

1. Five s's—sssss, two e's—ee, one o, one p. A verb denoting ownership.
2. Three s's—sss, two c's—cc, one u, one e, one i, one o, one n. A noun meaning in order.
3. Three m's—mmm, one o, one e, one t, one u, one n. A noun denoting the result of applied force, impetus.
4. Two s's—ss, two a's—aa, two o's—oo, two i's—ii, one t, one n. A noun meaning a union or organization.
5. Four s's—ssss, four i's—iiii, two p's—pp, one m. The name of a stream.

This contest closes March 2nd. Send your papers to Uncle Frank, Michigan Farmer, Detroit, Mich.

#### DAD CONTEST WINNERS

THIS contest was very interesting to me for it brought many young folks' opinions of the influence of the father in the home. I know these letters will interest many others when

they appear in our columns starting next week. It was rather hard to pick the winners as so many letters had good qualities, but after several readings I picked the following:

#### Fountain Pens

Ruth Irene Burkett, R. 7, Dowagiac.  
Idolia L. Smith, Luther, Mich.  
**Loose Leaf Note Books**  
Osmond L. Beckwith, Ovid, Mich.  
Zola M. Marsh, Kingsley, Mich.  
Clinton Van Duine, R. 1, Dor, Mich.  
**Pocket Knives**  
Lilly Tervo, Chassell, Mich.  
John Vloch, R. 2, Carleton, Mich.  
Wilma Secord, R. 2, Wiedman, Mich.  
Anne Petrovic, R. 1, Wallace, Mich.  
Claude Feighner, R. 2, Leroy, Mich.

#### MANAGING IN CORN-BORER AREAS

(Continued from page 253)

of control: (1) feeding corn to live stock direct from the field, or as silage, or as finely cut or finely shredded material; (2) plowing under cleanly; or (3) burning completely.

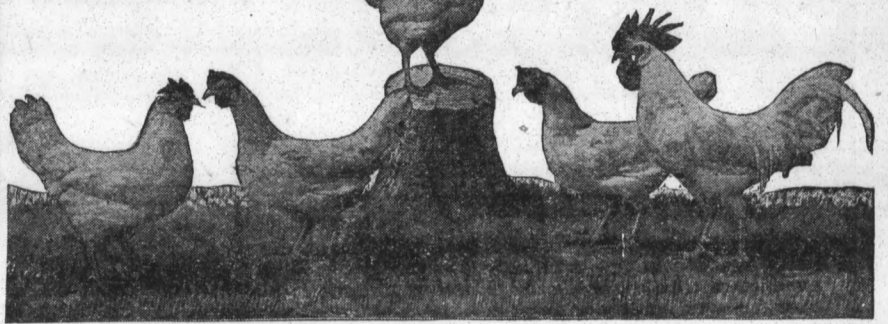
The actual damage to the corn crop in the United States has been limited to small acreages, and no pronounced shift from corn to other crops has occurred. In the Canadian areas where the infestation and damage have been heavy, there has been a marked shift from corn to such crops as oats, barley, wheat, peas, beans, hay, sugar beets, and tobacco. In some localities over half the corn has been displaced by these crops. Whether Michigan farmers should shift production will depend mainly on two things: (1) the advantage of corn over other crops either as a feed crop or as a crop for sale; and (2) the ease or difficulty with which methods of corn production may be modified so as to keep down the borer infestation and avoid seri-

Farmers' Bulletin No. 1562-F should prove of value to all farmers in regions infested or likely soon to be infested by the corn borer. It may be had by writing to the Department of Agriculture, Washington, D. C.

ous commercial damage. The general adoption of practicable methods of control such as are outlined by the State and United States students of the borer problem should prevent serious damage to the corn crop and obviate the necessity for any general replacement of corn with other crops.

In southeastern Michigan where a shift is most probable the crops to which farmers turn naturally are such as oats, wheat, mixed clover and barley. Oats, wheat, and barley are relatively unprofitable in this vicinity. Alfalfa is more nearly on a par with corn in value per acre and would be useful on dairy farms with the use of silos as an additional control measure on the remaining corn acreage.

## GRANDVIEW'S PRODUCTION LARGE TYPE LEGHORNS



## GRANDVIEW'S PEDIGREE SIRED CHICKS

### The Right Seed for a Big Egg Crop

Grandview's Large Type Production Bred Leghorns are real Commercial Layers. Tested and Proven in Official Contests, and Trapnested and Pedigreed for years, they are consistent heavy winter layers, producing a fine, large, white egg that brings premium prices on any market.

Every bird of long, deep, wedge shaped production type. Mated to 200 to 290 Egg Pedigree and R. O. P. Males, having the Egg Laying Contest Winning Blood Lines bred in them through many generations.

### Baby Chicks for Immediate Delivery

Our Baby Chicks are easy to raise, fast growers, and mature early into Profitable Layers. Chicks are available for delivery when you want them. Large production makes this possible.

Write today for information and prices, stating the number of chicks you want.

Our Poultry House Plans, Methods of Brooding and Feeding, Catalog and Poultry Guides will give you a complete Poultry Course for profitable egg farming. Get these books before you buy your chicks. They'll help you cash in on Grandview's 20 years' experience.

## Grand View Poultry Farm, Inc.

ZEELAND,

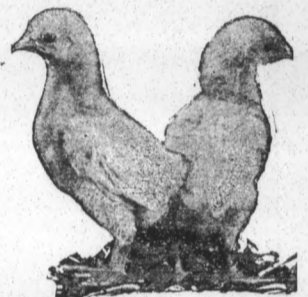
Dept. 11

MICHIGAN

### 1928 CATALOG TELLS—

All about Grandview's Famous Winning Strains, with 1927 Official Contest Records for 10 bird pens. TEXAS, 1st Pen, 52 weeks, 2534 Eggs. MARYLAND, 2335 Eggs, 51 weeks. MICHIGAN, 1st Pen, 10th Mo. by Customer, 2231 Eggs. FLORIDA, 2068 Eggs in 51 weeks. SOUTHEASTERN Egg Laying Contest, 2372 Eggs in 51 weeks. Also winners in ILLINOIS, WISCONSIN, ALABAMA, and NEW JERSEY.

Profit with Grandview Leghorns this year in your own flocks.



## SILVER WARD SELECT CHICKS



You can save money by ordering your Silver Ward Michigan Accredited Chicks now. We give a special discount that means a substantial saving in the cost of your chicks. Furthermore you are sure of your chicks exactly when you want them. The big free catalog gives complete details.

### GET THESE FACTS

You owe it to yourself to get all the facts as to sources of well bred stock. It means your success or failure. Silver Ward has long been recognized as one of the leaders. Get the catalog. It's free and it tells all about us. Michigan Accredited Silver Ward Chicks are chicks bred from foundations of such blood lines as Barron and Tancred Leghorns, Sheppards, Anconas, etc. They are fine chicks, moderately priced. Try some this year. The catalog is free.

**SILVER WARD HATCHERY**  
Box 29, Zeeland, Mich.



## HOLLYWOOD WHITE LEGHORN CHICKS

From stock direct from Hollywood Poultry Farm, of the same Foundation that has made such wonderful records in recent years in many Egg Laying Contests and for Commercial Egg Farmers.

### HIGH EGG BRED BLOOD LINES

The Hollywood Cockerels we produced last year were direct from 200 to 258 Egg Hollywood Stock. These Hollywood Males were mated to our Contest Quality Breeders of exactly the same Strain that produced 2,393 eggs in 51 weeks at the 1926 Michigan International Egg Laying Contest. Hens weigh from 4 1/4 to 6 pounds. Contest Pullets now producing pure white eggs averaging over 25 ounces to the dozen. This mating produced pullets that averaged over \$3.00 net profit each for their owner. Customer from Minn. also writes he averaged 100 eggs daily from 130 pullets during Dec. and Jan.

Lower List Prices This Year With Higher Quality

FREE 1928 Catalog

Send for copy. Tells the story of our breeding methods with this profit making, high egg laying strain.

We also produce Anconas and Barred Plymouth Rocks

Wyngarden Farms & Hatchery, Box M, Zeeland, Mich.



## DILIGENT CHICKS DID IT

and will do it for you.

Your DILIGENT CHICKS became DILIGENT LAYERS and beat them all in our neighborhood, enter order for 500 March delivery, a customer just wrote us. Do not hesitate to send your order. You will be satisfied. Thirteen years of honest dealing behind us. Pullets after May first. Please note our NEW LOW postpaid prices:

	50	100	200	500
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Barred Plymouth Rocks .....	7.25	14.00	27.50	67.50
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Box F

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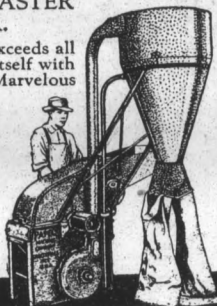
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## Live stock AND DAIRYING

### DAIRY INCOME STABLE

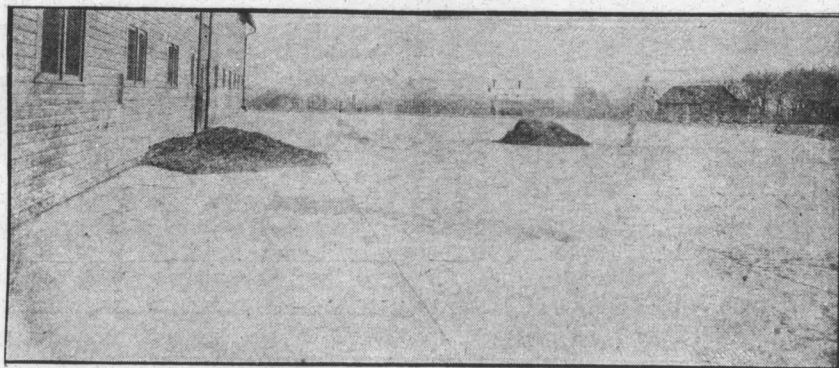
GROSS cash income from the sale of dairy products has been more stable during the past eight years, than the gross cash income from any other department of agriculture, according to the rural economics department of the Ohio State University.

V. R. Wertz, specialist, has studied the gross cash income of agriculture as an index of farm prosperity which is more reliable than unit price indices, because it shows the volume of business done. His statistics are based upon an index of 100, which is the average gross cash income from the principal sources in 1924, 1925, and 1926.

On this basis the dairying income started in 1920 at 147 and dropped with all other sources of income in

the feeding period alone justified the extra care necessary to handle the pigs in a sanitary manner; but another important advantage was getting the pigs to market in September and October. The sales report showed that \$11.60 per hundred was secured, two dollars more per hundred than the slow-growing pigs brought that were not handled in a sanitary manner and marketed in November and December.

On one farm, the pigs were one hundred pounds heavier at the age of seven months than were the pigs raised on the same farm at the same age in 1926. The success of these co-operators has encouraged others to handle their pigs according to the sanitary plan. However, it is necessary to begin a year ahead of time, as many farmers find themselves without a pasture that has not had



The Paved Barnyard Has Many Advantages for the Live Stock Man on Certain Types of Michigan Soils

1921 to 97, which was a shorter drop than was shown by any other group of commodities, and was seven points above the total gross cash income.

In 1922 there was a further drop to 91, which was three points above the figure for the total. It was above the index for every other department except the sale of meat animals. Dairying income soared in 1923 to 116, the highest figure reached by any important department of farm industry since 1920, and 21 points above the total income index. It dropped in 1924 to 103, but was still above all other figures. In 1925 the index was 97, three points below the figure for the total, and in 1926 dairying income belied its past performance by registering 99, the lowest of all the indices.

In 1926 all important departments of farming other than dairying showed peaks as compared with 1925. But in 1927, according to preliminary estimates, there was a sharp drop which was not shared by the dairying branch. While the index for the total income in 1927 was down to 91 points, dairying remained at 99, the point reached in 1926.

The average index for the eight-year period for dairying income was 108 points, while the total gross income average has been 102 points.

### SWINE SANITATION PAYS

THE Swine Sanitation project conducted in Warren County, Indiana, by County Agent H. H. Madaus has given some interesting results. Ten farmer co-operators produced 1,030 pigs in the spring farrowing, averaging around six pigs per sow. The pigs were farrowed in clean houses and transferred to clean ground where no pigs had been kept for at least one year. In most instances they were transferred to clover pastures and given access to self feeders placed in creeps and kept on full feed.

Some of the pigs were marketed at six months and weighed over 200 pounds. The rapid gain made during

hogs on it for the required length of time and consequently the ground is infested with worm eggs.

### TREATMENT WOULD INCREASE DAIRY PROFITS

MICHIGAN dairymen are losing millions of dollars through contagious abortion in their cattle. This disease can now be checked according to our leading veterinarians. At a recent conference of animal doctors, held in Illinois, the requirements were discussed at length.

The blood test for detecting abortion in cows has been perfected after numerous experiments. It now is thoroughly reliable. Facilities for making the tests have been provided at most of the agricultural colleges in the various states. The testing and segregation system is being followed.

Elimination of abortion increases the production of both calves and milk. So evident have been the results to progressive dairymen that they are becoming enthusiastic over the outlook. Specially interested are these men in the "repeated testing" system. By this plan the abortion in some badly infested herds have been reduced to five per cent as compared with a reduction to twenty per cent under the best treatment that was given formerly.

In time farmers and dairymen may demand a complete clean-up of the disease as now is being done with tuberculosis. But compulsory testing of all herds for abortion cannot be undertaken until proper public support is given.

We were interested to note that among the Rambouillet ewes, those that raised two crops of lambs during 1927 sheared an average of two pounds per head less than those which had no fall lambs. Thus we had demonstrated once more that you can't burn the candle at both ends and you can't have your cake and eat it too.—S. P.

## Cull Beans for Cows

By W. F. Taylor

FOR fifteen years I have been feeding cull beans to the cows. I have fed them cooked and uncooked, and have found them of considerable value in either case.

The argument in favor of cooked beans is that the cows like them. There are few things our cows like better than beans well cooked. We have put just salt enough in them to attract the animals, and have tried not to use too much water in cooking. Enough to keep the beans from burning, is just right.

Beans are twenty per cent protein and for that reason should not be fed alone if cows are giving much milk. Just how much grain should be fed with the beans, and what it should be, depends upon what roughage is fed. If clover or alfalfa is fed liberally, less beans and more grain should make up the balance of the ration. I have found a number of dairymen feeding beans as the only grain in the ration, and if the roughage, other than ensilage is corn stover and timothy hay, such a ration is apt to give fair results, while its cost is usually very low. As to its effect upon the cows, I should look for no trouble. There would seem to be no reason why beans would be worse for a cow than for a man, and in many parts of our state, the folks are living successfully upon a ration that includes as large a proportion of beans as is often fed to the dairy herd.

I have figured the cost of cooking beans and it is not much greater than the expense of grinding them. Of course, the cost of cooking depends somewhat upon the quantity cooked. Where only a few are required the labor of cooking is proportionally greater.

Our roughage is largely clover and alfalfa, and if we feed too many beans the cows will get too much protein. Just now, I seem to hear some one say, "What of that? I am feeding a twenty-four per cent feed and no other grain. My cows are doing the best they have in years. This talk about the danger of too much protein is nonsense."

All right, my friend, keep it up if you like, but there will come a time when something will happen. Alfalfa is one of the best forms of roughage known, but even alfalfa cannot be fed alone to a herd of cows for a long time without damage to them.

The only safe way is to feed a ration as nearly balanced as we can. At the present time I am alone with a lot of chores and do not cook beans. I am having them ground and using them in the proportion of twenty-five per cent of the grain ration. We mix them at the mill with corn meal, bran, ground oats, and gluten meal, the latter forty-one per cent protein. It would be as well to vary this mixture somewhat if it were necessary. We could use cottonseed meal, or linseed meal, or both, to help furnish the required protein. We put in one per cent of salt, but are using no other mineral as we prefer to let the cows get it from the clover and alfalfa. When but twenty-five per cent of the ration is beans, the cows consume the grain as readily as I have ever seen it done, no matter what the ration is made of. Results seem as good as we have ever gotten from any formula, and the ration is cheap.

A friend has asked us several times within the last few years, if we ever figured the cost of our rations in feeding the hens. Now the truth is, we have often suspected a little Scotch blood might be within us, though we can not account for it. The suspicion comes from the fact that we never part with good money for feed for either hens or cows and fail to note results when it is fed. A wise

man of old said "There is a withholding that tendeth to poverty." True indeed. How many there are who have not the courage to feed their cows enough to enable them to produce a profit.

We are writing this article because we have found that cull beans can be used either cooked or ground, and will prove a source of profit to the dairyman if they are fed wisely and do not cost too much. This brings us to the question of how much one may pay for them. We have been able to secure them in the past for not more than half the cost of ordinary grains, and when we cannot buy them without paying more, we shall let some one else have them. To be more definite, when we have to pay more than a cent a pound for them, we shall not buy them, and if we can buy them for less we shall use more of them.

Beans serve well as a part of the ration for young heifers when we have good ensilage. The animals will do nicely with plenty of ensilage, two pounds of beans daily, and a little hay or straw, with no additional grain. Of course, if we are to feed beans alone we must cook them.

May we close by saying that in making up the ration we must consider always the well-being of the herd. While we keep the cows we must see that they are kept in as good health as possible. Only when they are in the pink of condition can they do their best for us. To learn how to keep them there, and do it at a cost that will leave us a satisfactory margin of profit is to be a good dairyman.

### HOGS SOLD SATISFACTORILY

THE pure-bred Poland China pig sale, held by W. E. Livingston of Parma, Michigan, drew a large crowd of breeders and farmers from all parts of the state. The offerings were well grown and seemed to meet with the approval of the ringside gathering, the top of the sale being an outstanding boar pig sired by L'Biz Wender going to Amos Curtis of Manchester, Michigan, for \$156.00. There were a number of high class boar prospects that were eagerly contended for. The Michigan State College secured a number one prospect, as well as Kengen Bros. of Grand Ledge.

Nineteen young sows brought an average of \$51.81, while twenty-three boars averaged just a few cents less than \$49. Among the buyers were O. Sober, Fowlerville; Wm. Pulling, Parma; Chas. Goldsmith, Clarks Lake; B. Arnold, Marcellus; F. L. Whittaker, Concord; F. Skuse, Pittsford; G. R. Dickey, Coldwater; H. Hazelswartz, Grass Lake; P. W. Ballinger, Schoolcraft; C. J. Fox, Marshall; R. Martin, Hastings; J. J. Foster & Son, Niles; L. Butcher, Homer; Hillcrest Farm, Kalamazoo; A. Gregory, Portland; A. Fieldcamp, Manchester; C. Weaver, Ceresco; L. W. Rickraft, Ithaca; Kenyon Bros., Grand Ledge; A. Curtis, Manchester; L. L. Chamberlain, Marcellus; C. Mesler, Albion; E. Butcher, Homer; D. Armstrong, Pittsford; A. W. Humphrey, Ithaca; J. Hoffman, Hudson; F. Wilson, Parma; D. Begole, Ann Arbor; Creglow Brothers, Marcellus; M. S. C., East Lansing; A. Girbach, Saline; F. Lane, Bloomington; C. Mesler, Albion; B. Davis, Reading; W. Schaltz, Ann Arbor; F. Tilford, Springport, and J. Butler, Portland.

The bidding was brisk from the start to finish and a number went away without securing what they came after although they were good bidders. Andy Adams of Litchfield, Michigan, did the selling in a little over two hours.

Great waste in the paper industry is due to the decay of pulp and pulp wood.



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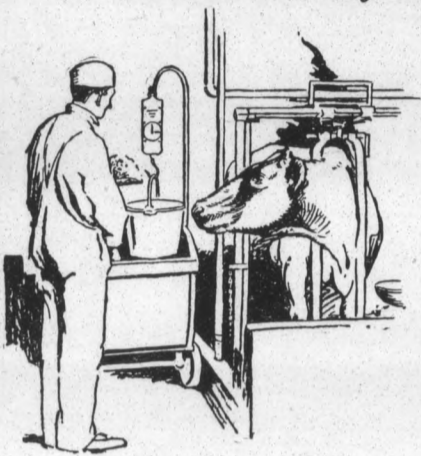
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# The Outlook For Wool

*Future Not Discouraging*

THE outlook for wool appears favorable. Supplies abroad are light, foreign markets strong, domestic prices of wool are below the tariff differential from foreign prices, and no further recession in general business conditions seems probable in the near future.

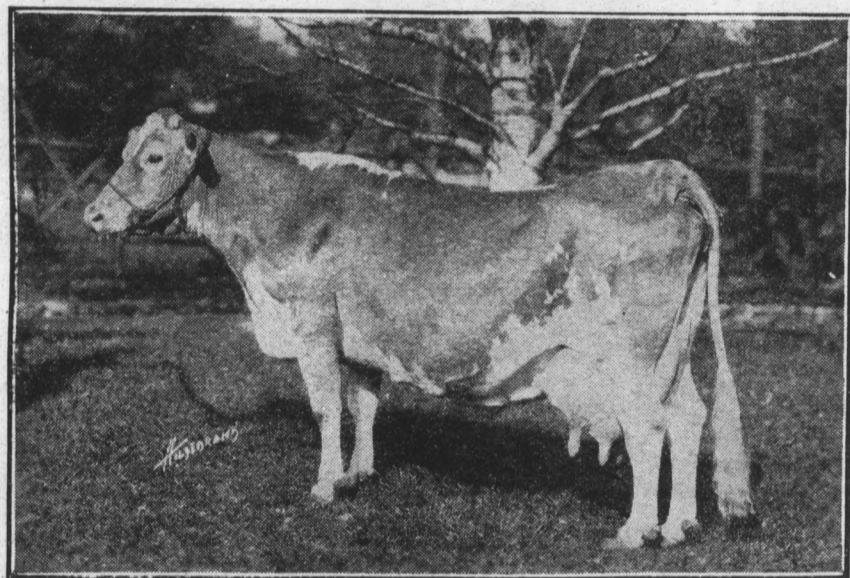
The average price received by producers in the United States was 30.7 cents for the year as compared with 32.5 cents in 1926 and 38.5 cents in 1925. Domestic prices showed considerable strength during the last half of 1927 with an upward trend.

The absence of violent price fluctuations throughout the past year and the satisfactory clearance of manufactured goods indicate that the wool textile manufacturing industry has regained confidence in the stability of wool prices.

American purchases abroad have been light. Stocks of wool held by reporting dealers and manufacturers in

one year old and over was 27,658,000 in 1927 and 29,574,000 in 1928. While the increase in breeding ewes indicates an increase in those countries in 1928, reports of lambing in New South Wales, in Australia, and in Argentina (which countries support about one-seventh of the world's sheep), have not been very satisfactory. The preliminary estimates of sheep numbers in Australia on January 1, 1927, is slightly below the revised 1926 figures, and a still further reduction in 1928 is not improbable because of drought in Queensland and New South Wales during most of 1927.

World wool production during the past four years has been on the upward swing of the cycle, but the per capita production for the period 1923-26 was less than for the pre-war period 1909-13, when total production was at the peak of that cycle. Prices of the better grades of Colonial wools at London have advanced relatively



This 14-Year Old Cow Produced 21,967.6 Lbs. Milk in One Year.

the United States on September 30, 1927, were 7 per cent greater for domestic and 20 per cent less for foreign wool than on September 30, 1926, with a greater decrease in combing and clothing wool because of the increased stocks of carpet wool. Stocks of combing and clothing wool in bonded warehouses in the United States on October 31, 1927, were 53,570,000 pounds, as compared with 83,377,000 on October 31, 1926.

While imports of combing and clothing wool during the first eleven months of 1927 were 62 million pounds below the same period in 1926, consumption by reporting mills was 31 million pounds greater.

Foreign markets throughout the year continued active with keen competition at practically all the Colonial and London sales, and prices for practically all grades advanced throughout the year. Notwithstanding the lack of active competition from the United Kingdom and the United States last year other important wool consuming countries readily absorbed the quantities offered at sale points although wool prices constantly advanced.

Estimates of wool production for the 1927-28 season in nine important producing countries, which usually produce from 65 to 75 per cent of the world's clip, indicate a decrease of about 4 per cent from last season. Sheep numbers in 18 countries, which in pre-war times produced about one-half of the world's sheep, at the beginning of or in the summer of 1927 were 361,000,000 head or 3 per cent over 1926 and 6 per cent over pre-war. The estimated number of breeding ewes for 6 European countries was 31,350,000 for 1927 as compared with 30,728,000 for 1926 and for the United States the number of breeding ewes

more than have the lower grades and have averaged higher than the index of average wholesale prices as compared with the pre-war average, and the keenest demand has therefore been felt for the finer grades.

All statistical information indicates that wool is in a firm position. It must be remembered, however, that wool prices could be influenced by factors which cannot be measured statistically.

Lamb production in this country is trending upward and approaching the peak of the cycle. The outlook for the next few years indicates the need of considerable caution in regard to further expansion in the production of market lambs. Since 1922 the number of sheep and lambs has shown an average increase of around a million head per year. With favorable weather conditions a very large lamb crop is not improbable and should such a crop materialize the situation might be further aggravated by the marketing of ewe lambs ordinarily retained for flock replacement or expansion and by liquidation of flocks. The outlook does not appear so unfavorable for sheep producers who depend on wool for the major portion of their income as for those who produce market lambs.

The trend of production to heavy feeder lambs made it difficult for lamb feeders to secure light feeder lambs suitable for finishing for the late winter and spring market, especially during years of good range conditions. Therefore it seems that producers should give serious consideration to the production of lighter weight feeder lambs. It also appears that consideration should be given to the production of higher quality wools in adaptable areas.

## Officials Endorse Protective Service

(Continued from page 256)

will be of great help to the law enforcing machinery of the state. I have just had a pleasant experience with the 'Prairie Farmer,' published in Chicago, in running down a national gang of eye doctors, who were swindling the farmers throughout the United States, therefore I appreciate the value of this brand of service of your farm papers."

George B. Lawcock, Sheriff of Shiawassee, offers a good suggestion. "I believe your Protective Service Plan is a mighty good thing for the farmers and hope they are quick to take advantage of same. The farmers are fairly good about reporting any loss they may sustain. I believe it would be a great help if they would ascertain the license number of suspicious cars they may see parked in their neighborhood. We will be glad to assist you in this Farm Property Protective Service in every way possible."

Byron J. Patterson, Sheriff of Kent County, registers appreciation when he says: "I am very glad to know that the Michigan Farmer is reaching out and assisting in such important work as you are. The farmers of Kent County are business men. All have automobiles and most of them telephone service. They are very alert in notifying my office of losses from their premises. This morning I received a call from a farmer in the southern part of the county reporting the loss of baled hay, which he thought a minor offense but I dispatched two deputies at once, to investigate and arrest if possible the guilty parties."

Floyd E. Myers, Sheriff of Gladwin County, expresses his appreciation. "We are glad to know that you are organizing the Michigan Farmer Protective Service, which I know will be of great help to the farmers of the state and of much assistance to this office. Our people do very well in reporting stolen property, but are often late in making reports which is a handicap to this office. Thanking you in behalf of the farmers and officers of Gladwin County, I assure you of our assistance and cooperation."

### Report Your Losses Without Fear

Ward I. Waller, Prosecuting Attorney of Cheboygan County, said his people are too considerate of crooks. He says in part: "The stealing from farmers in this county has been pretty much limited to poultry. We have had some cattle and sheep thefts in the south end of the county by three men. Most of the farmers were afraid to make complaint against them for fear their buildings would be burned or their cattle poisoned. They finally killed a steer belonging to a farmer who made complaint. One of the three offenders pleaded guilty and confessed, and the other two were sent to Jackson. Since that time the man who made complaint has not been harmed and we have had no more trouble in that vicinity. I believe this work you are doing will be beneficial to farmers and it certainly will be a great help to the law enforcement officers, if farmers will take your advice in this matter."

Carl Holbrook, Prosecuting Attorney of Clare County, finds that some of his people are tender hearted when it comes to furnishing evidence and pressing for conviction of thieves after they have been apprehended. "Your work is a very praiseworthy enterprise. I am glad that such an organization as yours has taken a step to aid the law enforcing agents of this state in this regard. Many farmers are not always ready to demand conviction of thieves and it is difficult in many instances to get the necessary convicting evidence, although we may be practically sure that offenders are guilty. This activity on your part I

am sure will aid materially in eradicating such petty thievery as now exists. Your publication will no doubt bring about a change in the attitude of many farmers and prompt them to demand convictions in theft cases."

### Prosecutors and Judges Pledge Assistance

Clarence A. Looker, Prosecuting Attorney of Ottawa County, says he was surprised indeed to know the appalling sum lost annually to the farmers by this kind of thievery. He says officers of his county have diligently sought to protect the farmers in this respect. He says, "We have brought many criminals before the court on these kind of charges who have been dealt with very severely by Judge Cross, who has absolutely no patience for a farm thief. You are assured that the officers of this county will continue their vigilance in this cause."

Earl W. Munshaw, Prosecuting Attorney of Kent County, shows he's on the job when he says, "I have your letter of recent date relative to prosecuting thieves and trespassers. Please be advised that this office will do everything possible to see to it that the laws regulating thievery and trespassing are vigorously prosecuted."

The above are extracts from a few of the many letters that have come to us from law enforcement agencies and assure us of their cooperation in stamping out thievery and trespassing in this state.

In whatever county you may live, you may be sure that your sheriff and county attorney are ready and willing to give you and your neighbor every possible aid in hunting down and convicting the thieves or trespassers who steal from or trespass on your property. You will also find the town marshal, state police officers and every local agency of your community ready and willing to give every possible assistance to catch and convict thieves. The law enforcement agencies want to stop these enormous losses of farm folks but they must have your assistance. The first thing to do is to post your farm with a Michigan Farmer Protective Service sign. That will serve notice on all thieves and trespassers that come your way that your property is protected by our Property Protective Service and that a reward will be paid for the arrest and conviction of anyone stealing or trespassing on your property. An unposted farm is an invitation to thieves to come in and help themselves. Get your neighbors to post their farms too with the Protective Service Sign. Remember that this Property Protection Service pays rewards for the capture and conviction of thieves who steal from farms only where the Protective Service sign is posted. Thieves and trespassers will soon learn that it is not safe for them to prowl over property thus posted.

The posting of your farm with the sign of our Property Protective Service, protects your live stock, poultry, grain, and the other crops, machinery, tools, and personal property. Even the dog and cat comes under this service. There will be a \$50.00 cash reward for the person or persons furnishing evidence to local peace officers that will result in the arrest and penal sentence conviction of thieves or trespassers who visit your property.

The first thing to do when you have had a visit from an undesirable party is to report the matter to your sheriff or prosecuting attorney. Don't wait until you go to town. Telephone the officer even though it be in the middle of the night. Promptness in this matter is very important as it gives the officers time to get in action and catch the crook.



## Wonderful New Method

Milks Cows as No Other Machine  
Has Ever Milked Cows Before!

The NEW Surge Milker, with its marvelous NEW Surging—Tugging—Action gives the cow's teat the real TUG of the calf—and, like the calf, TUGS harder and harder as the cow milks out—milks cows faster, cleaner and better! W. J. Dougan, of Beloit, Wis., writes us: "The Surge is giving better satisfaction than any other machine I have ever used and even better results than hand milking." Mail coupon below for free Surge catalog—learn what the wonderful NEW Surge Milker will do for YOU.

## The Surge Milker

The NEW Surge Milker also gives you the advantage of easily adjusting it to give each cow just the TUG she needs to get ALL her milk. No other milker gives you that advantage. And because it is the only milker WITH—

OUT Long Tubes and Claws the NEW Surge is EASIER to clean and keep clean. That's why The Surge makes it EASY for you to get premium prices for your milk—with less work and less expense than ever before!

## FREE Demonstration

Mail coupon for details of our FREE Demonstration Offer that enables you to prove all this yourself before you obligate yourself in any way. SEE—KNOW—what The Surge will do for you! Get details of our EASY Terms Offer. Mail the coupon—get all this good news NOW.

### Send for FREE Book!

**Proof!**  
"Have used 3 other machines. The Surge is the only one I would consider now."  
F. E. Smith,  
Huston, Idaho

Yes, at least, send for the free NEW Surge Catalog telling all about this wonderful new milker—our Free Demonstration and Easy Terms Offer. Mail coupon now.

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Please send me without cost or obligation your FREE Surge Book telling all about The Surge Milker and also tell me about your special FREE Demonstration and "Easy Terms" Offer.  
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Address \_\_\_\_\_ State \_\_\_\_\_  
(Be sure to Tell Us How Many Cows You Milk.)

## BREEDERS' DIRECTORY

Change Copy or Cancellations must reach us  
Twelve Days before date of publication.

### CATTLE

## GUERNSEYS

I have for sale at reasonable prices a number of young bulls, the use of which should improve the type and production of your herd. Also a few heifer calves. John Endicott, Birmingham, Michigan.

### Wallinwood Guernseys

Sons of BROOKMEAD'S SECRET KING for sale.  
F. W. WALLIN, JENISON, MICH.

GUERNSEYS either sex, whose sires' dams have official records of 15.  
109.10 milk, 778.80 fat, 19,460.50 milk, 909.05 fat.  
T. V. HICKS, Battle Creek, Mich., R. 1.

**For Sale** Reg. Guernsey herd sire, age 3 yrs., 6 mo. Imp. dam has A. R. record of 11,190 lbs. milk, 570 lbs. fat as Jr. 4 year old. HENRY VAN FAROWE, Zeeland, Mich.

**FOR SALE** Reg. Guernsey bull, 20 months old. Three nearest dams average 665.69 lbs. butter-fat. A splendid individual. GARROD BROS., Lawrence, Mich.

**Guernsey** Dairy Heifer Calves, practically pure bred \$25.00 each. We ship C. O. D. Write L. Terwilliger, Wauwatosa, Wis.

**For Sale** —Reg. Guernsey cows and a few bull calves, sire by Imp. Coro Honor. JOHN EBELS, Holland, Mich., R. 2.

**FOR** practically pure-bred GUERNSEY or HOLSTEIN calves, from heavy, rich milkers, write EDGEWOOD DAIRY FARMS, Whitewater, Wis.

**FOR SALE—Registered Guernseys** fresh and springers. Rollin Anderson, Holton, Mich.

## MICHIGAN STATE HERDS

### Bred for Production

The State of Michigan maintains 1,500 pure-bred Holstein cows to furnish milk to the various state institutions. These herds must produce milk at a low cost. This requires high average production. Your herd needs high producing ability to enable you to produce milk at a low cost per hundred pounds. Can we help you by supplying you with a young bull bred along production lines. Allow us to send you pedigrees and prices on young bulls that will increase your annual production and lower your cost.

Bureau of  
Animal Industry  
Department C,  
Lansing, Michigan



## SERVICEABLE AGE

### REGISTERED HOLSTEIN

Bull Calves at prices the owner of a small herd can afford to pay. The sire of many of these calves is a Son of the highest record (30 lb.) two-year-old daughter of Creator. His sire is King Segis Alcartra Prilly, an undefeated Show bull with 70 A. R. daughters. Others sired by 5 times 1200 lb. Champion Bull, the famous K. P. O. P. breeding.

Bred cows and heifers served by these sires are available for foundation stock.

## RED ROSE FARMS DAIRY

Northville, Michigan

Telephone: 344

Reference: Northville State Savings Bank

### 22 Grade Holsteins

Also pure-bred Registered bull, \$2,400 for the herd. A good bunch of young cattle that are workers and will produce for you. Have bred our own stock for the last twenty years, always using pure-bred bulls. Herd 90% pure-bred. Going out of dairy business. Inquire at Kiskadden farm, 3 miles southeast of Belleville, or C. H. KISKADDEN, Bull Sons Co., Adair St., Detroit.

### High Class Yearling Holstein-Bull

For sale. L. C. HUNT, Eaton Rapids, Mich.

**Registered** Brown Swiss for sale, cows 10 and 11 yrs. old due in Feb. 2 bred heifers. Also bulls of serviceable age. A. A. FELDKAMP, Manchester, Mich.

## 88 Hereford Cows

Big wide back kind, dark reds, dohomed. Bred to extra good Hereford bulls to calve about April 1st. Will sell you choice car load. Also 22 Hereford cows and calves and 24 heavy springers. Also other bunches. All T. B. tested. Also yearling and 2 yr. old stockers and feeding steers sorted even in size and quality.

VAN S. BALDWIN, Eldon, Iowa

## FINANCIAL KING JERSEYS

We have for sale a most excellent selection of bull calves ranging in ages from 4 mos. to one year old. These calves are sired by Financial King Sensation and Financial Ford and out of Register of Merit Stock. Prices reasonable. COLDWATER JERSEY FARM, Coldwater, Mich.

**FOR SALE** Six high grade and registered Jersey cows, 3 heifer calves 6 mo., 1 yearling heifer, 1 yearling bull whose dam made 402 lbs. butter-fat in 300 days, 2 bull calves. C. H. FREEMAN, Alto, Mich.

### QUALITY JERSEYS

Have a few young bulls and heifers that will improve your herd. Our show record speaks for itself. E. W. MARTIN, Ann Arbor, Mich., R. 3.

**GREEK FARM JERSEYS** Have type and production. Write for catalog, if you need Foundation Jerseys. C. C. Creek, Montpelier, O.

Always look for the **Red Brand** (top wire)

## "Cross Fence in 10 Acres"

**Says G. W. Hower, Cape Girardeau, Mo.**

"I can get far more pasture from four 10-acre lots than from one forty. Grass is fresher, cattle eat more. Cows do not like trampled grass and they almost always walk over a field twice a day whether it is 10 or 40 acres, thereby damaging a great amount of pasture."

## RED BRAND FENCE

**"Galvannealed"—Copper Bearing**


made a 15-acre cornfield hog-tight for Floyd Newman, Creighton, Nebraska. After hogging-down, he writes: "Hogs did better, corn lasted longer, no waste, manure was left on the field and I saved picking expense."

Cross fence in small fields for bigger profits. Ask your dealer about RED BRAND FENCE. He will tell you it is cheaper because it lasts longer. Rust-resisting copper mixed in the steel, like old-time fence, keeps long life in. Extra heavy coat of zinc "galvannealed" into the wire keeps rust out. These insure long life. One-piece, picket-like stays; wavy give-and-take strands, the Square Deal can't-slip knot, full gauge and honest weight keep it trim, hog-tight and bull-proof.

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4919 Industrial St., PEORIA, ILLINOIS

What has been your experience with or without good fence? We will pay \$5.00 or more for each letter that we use. Write for details, catalog and 3 interesting booklets that tell how others have made more money with hog-tight fence.

### STOPS LAMENESS




from a bone spavin, ring bone, splint, curb, side bone, or similar troubles; gets horse going sound. Absorbine acts mildly but quickly. Lasting results. Does not blister or remove hair, and horse can be worked. At druggists, or postpaid, \$2.50. Horse book 9-S free.

Pleased user says: "Had a very lame horse with bone spavin. Now sound as a dollar; not a lame step in months. Working daily."

## ABSORBINE

TRADE MARK REG. U. S. PAT. OFF.  
W. F. YOUNG, Inc., 468 Lyman St., Springfield, Mass.

Just Try a Michigan Farmer Liner for Quick Results.



### SAVE THE HORSE

Keep horses working—stop lamenesses quickly. Use the old reliable, guaranteed: "Save-the-Horse" Remedy. "Symptom Book" tells you how to diagnose and end SPAVIN, thoropin, curb, splint, strained tendon, hip, leg and shoulder lameness, etc. Write for this **FREE** book today!

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320 State St. Binghamton, N. Y.  
Druggists can supply "Save-the-Horse"—or, we ship direct, postpaid. No substitute will do as much.

## The Lightning Healer

### for tender tissues



The delicate tissues of the udder and teats have a direct bearing on the fullness of the milk-flow. If free of injuries—soft, pliable, silky—the milking is easy, the yield liberal. If injured, the cow is nervous, fidgety, the milk held back.

Bag Balm is the effective guardian of the teats and udder. It saves its cost every day in the average dairy by keeping little hurts from getting big. So clean and pleasant to use, it performs wonders in healing all cuts, chaps, cracked or bruised teats, caked bag, bunches, inflammation. It penetrates, softens, restores circulation. Bag Balm makes your cows full-time workers, while it is making the milking easy for you.

Big 10-ounce package of Bag Balm costs only 60c at feed dealers, general stores or druggists—and a package goes a long way. Mailed postpaid if hard for you to obtain locally. Booklet, "Dairy Wrinkles," free on request.

**Dairy Association Co., Inc.**  
Lyndonville, Vermont

**BAG BALM**

MADE BY THE KOW-KARE PEOPLE

### FARMER GIVES SECRETS OF GOOD CATTLE FEEDING

FRED L. BELLAS entered a pure-bred Shorthorn yearling steer calf which had been entered in a Thousand Pound Calf Club. The calf officially weighed when a year old 1,040 pounds. Mr. Bellas estimates that the feed cost of producing this calf was sixty dollars and that thirty dollars would cover the maintenance cost of the calf's dam for one year. This would make a total cost of ninety dollars on this 1,040 pound yearling steer that is now worth \$155.00 to \$165.00, according to estimates of experienced cattlemen.

"I began feeding this calf grain as soon as he would nibble at feed," said Mr. Bellas in telling his methods of feeding. "His dam was a heavy milk-er and gave the calf a good start. She died, however, when the calf was about six months old and we had to wean him. During the summer the calf ran with four or five others in the orchard where grain was fed in a trough nailed up against the fence. During the latter part of the summer he seemed to slow up on gains and I put him in the barn and began feeding new corn. The last four months he was fed liberally on corn, oil meal, and alfalfa hay, and never was off feed. I find that liberal feeding of calves while suckling enables one to put on the cheapest possible gains. A beef cow herd can show a satisfactory profit besides building up and conserving the soil resources."

### ESSAY AWARDS

ONE of the features of the Cow Testers Conference was the essay contest in which the testers wrote up their accomplishments during 1927. These essays were turned in to the Dairy Department in competition for \$100.00 award offered by the Michigan Creamery Owners and Managers Association.

First place in the essay contest was awarded to Ralph Moorhead of the Missaukee-McBain D. H. I. A. Twelve testers competed in the contest writing up excellent reports commenting about their activities during the past year. This is the largest number of reports and the highest quality of material turned in for this contest during the last few years.

The winning contestant will receive \$25.00 for first prize and the other prize winners are as follows:

Second place, Walter G. Kirkpatrick of the Leelanau County D. H. I. A., \$20.00; third place, Earl Jackson of the Macomb No. 2 D. H. I. A., \$18.00; fourth place, Ivar Iversen of the Berrien-North D. H. I. A., \$15.00; fifth place, Glen Bedell of the Ottawa-Alendale D. H. I. A., \$12.00; sixth place (tie) John DeVries of the Kent-North D. H. I. A., \$5.00; sixth place (tie), Forrest D. Bender of the Kent-South D. H. I. A., \$5.00. Morris C. Place of the Macomb No. 1 D. H. I. A. received honorable mention.

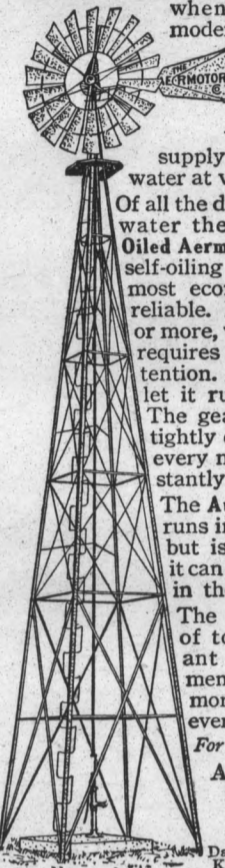
### DICKINSON IS PAID

IT was unfair for the state to remove the books of the Michigan State Fair offices and then demand the manager to make an accounting without them, according to Judge Collingwood in a decision in the suit started against the former manager, George W. Dickinson. Judge Collingwood ordered the state to pay Dickinson a monthly salary of \$2,000 to cover the costs of defense, saying Dickinson had been scrupulously honest in handling fair finances.

Beef cattle for slaughter and as stockers and feeders seem reasonably certain to find a market in 1928 that will average higher than in 1927, although the peak prices may not be so high.

## Power for Pumping Water

NEXT to the sun, the wind is the greatest power for raising water. The sun lifts a tremendous quantity of water every day which is scattered in mist to the ends of the earth. The wind, with a few simple pumping devices, will lift fresh water from beneath the surface of the ground and put it right where you can have it when you want it. With modern equipment for pumping water there is no good reason why any family should be without an ample supply of fresh running water at very small expense.



Of all the devices for pumping water the Improved **Auto-Oiled Aermotor**, the genuine self-oiling windmill, is the most economical and most reliable. It runs for a year, or more, with one oiling and requires practically no attention. Just put it up and let it run day and night. The gears run in oil, in a tightly enclosed case, and every moving part is constantly lubricated.

The **Auto-Oiled Aermotor** runs in a breath of wind, but is so strongly built it can be safely left to run in the severest storms.

The **Auto-Oiled Aermotor** of today has important added improvements which make it more decidedly than ever the best of its kind.

For full information write

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## MORE WOOL

### FROM SAME SHEEP

Why lose 10% to 15% of your wool by old fashioned shearing methods. The new Stewart ball bearing shearing machine will save you time and labor and give you 10% more wool year after year, from the same number of sheep.

### LET US PROVE IT!

Get our illustrated booklet which tells how owners of sheep and goats have increased wool profits by this new method. This book is **FREE** and you will not be obligated by sending for it. Machine pays for itself season after season. Write today!

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Dept. 613, 5600 W. Roosevelt Rd., Chicago Ill.

Try a Michigan Farmer Liner



## IDEAL Double Cow Stall

Built for Service  
Rust-Proof Partition Anchor

Large production facilities and years of experience enable us to make this splendid, sturdy, convenient stallion at an attractive price. It is built of heavy material, shaped right and once up, is there to stay. Partition anchor is rust-proof. The price is only \$8.95. Single post stalls as low as \$7.60 complete.

Write for complete details. We build a full line of barn equipment.

**Ideal Barn Equipment Co.**  
Dept. 40 Horicon, Wisconsin

## ESSAY CONTEST ON LIVE STOCK LOSSES

IN its effort to reduce losses of live stock, the Michigan Live Stock Loss Prevention Association is conducting an essay contest among the vocational agricultural high schools of the state. Each contestant must be enrolled as a male student in one of these schools. The students may write upon any subject concerning the prevention of live stock losses. The essay must not exceed one thousand words. Three copies typewritten on good paper approximately eight and a half by eleven inches should be submitted. The name of the author shall not appear upon the copy, but each contestant shall affix to his essay a sealed envelope containing his name, address, name of school, and teacher. The essay should be mailed to the secretary of the Michigan Live Stock Loss Prevention Association, 336 Michigan Central Terminal, Detroit, Michigan, by Monday, March 26. The winners will be notified on or before April 7.

The two contestants submitting the best essays will be guests of the association at the annual meeting at Detroit April 10 and 11 with all expenses paid including railway fares. One copy of each essay will be retained permanently by the above association, the other two will be returned to the contestant if accompanied by self-addressed envelope. For further information address the secretary at address given above.

## NEWS AND VIEWS

Continued from page 266  
was feeling pretty stiff with new pistons. So when we attended the Farm Bureau evening banquet I threw our fur robe over the engine. When we came out after our car the robe was gone!

Thus do the unsophisticated ruralites fall easy prey to the city slickers I should have known better than to have left this robe out to tempt weak-moraled pilferers, but we parked under bright lights near the Union Building where one would not expect the passers-by to be of a vicious type. This particular robe was a valuable one of black horsehide, with a blueish-black plush lining and scalloped fringe and was as good as new.

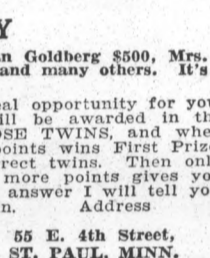
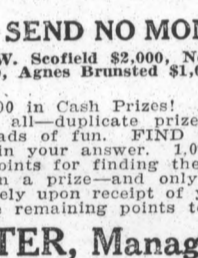
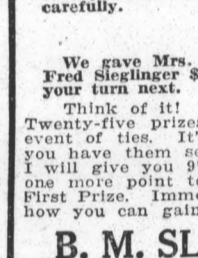
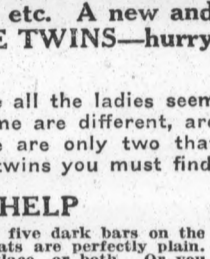
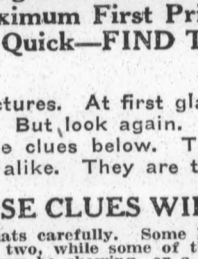
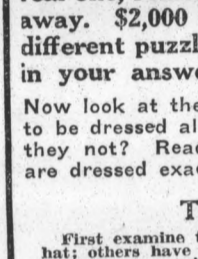
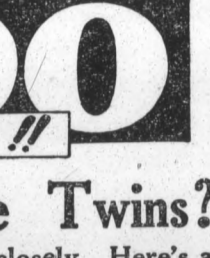
I feel confident that none of my fellow-farmers would have stooped so low as to have taken it. What a double tragedy if it were a college student who was the guilty party! Education without conscience is one of the greatest curses and menaces in American life. A young man who would accept the educational advantages which a progressive state offers and which I as a taxpayer help provide and then turn around and bite the hand that feeds him by stealing from one of his benefactors is an unworthy and ungrateful wretch.

Of course I reported the loss to the police, but I'd sell my chances of getting it returned pretty cheap. What will you offer?

## LAMBS HIGHER

THE upward trend in lamb prices which started a few weeks ago is still in progress. Receipts have hardly been as light as this advance might suggest but shipping demand at Chicago has been active, pointing to light receipts on eastern markets. It is probable that market supplies will at least maintain the present volume during the next three months, so that prices will do well to hold the bulk of the advance.

Receipts of cattle at 7 leading markets since January 1 total 985,000 head compared with 1,097,000 head a year previous. Arrivals this year were smallest in the corresponding period since 1916.



# \$2000 REWARD!!

## Can You Find the Twins?

Heads up! On your toes! Look closely. Here's a real one, folks. Big cash rewards! \$5,000 to be given away. \$2,000 maximum First Prize, etc. A new and different puzzle. Quick—FIND THE TWINS—hurry in your answer.

Now look at the pictures. At first glance all the ladies seem to be dressed alike. But look again. Some are different, are they not? Read the clues below. There are only two that are dressed exactly alike. They are the twins you must find.

## THESE CLUES WILL HELP

First examine the hats carefully. Some have five dark bars on the hat; others have only two, while some of the hats are perfectly plain. In some an earring may be showing, or a necklace, or both. Or you may find a brooch joining the collar. Some have a dark band on the collar, others none. No, it's not so easy as it looks. You must search carefully.

## SEND NO MONEY

We gave Mrs. T. W. Seefield \$2,000, Norman Goldberg \$500, Mrs. Fred Sieglinger \$1,000, Agnes Brunsted \$1,000, and many others. It's your turn next.

Think of it! \$5,000 in Cash Prizes! A real opportunity for you. Twenty-five prizes in all—duplicate prizes will be awarded in the event of ties. It's loads of fun. FIND THOSE TWINS, and when you have them send in your answer. 1,000 points wins First Prize. I will give you 975 points for finding the correct twins. Then only one more point to win a prize—and only 25 more points gives you First Prize. Immediately upon receipt of your answer I will tell you how you can gain the remaining points to win. Address.

**B. M. SLATER, Manager** 55 E. 4th Street, ST. PAUL, MINN.

## REGISTERED GUERNSEYS AT AUCTION

Absolute Dispersal of Capitol View Guernseys owned by  
E. J. Himelberger and Emil Evert

**Wednesday, March 7, 1928**

At the farm 3 miles south of Lansing on U. S. Highway 127, and 3/4 mile east on Miller road. Sale starts 1:00 p. m., E.S.T. Lunch served at noon. The herd includes 20 cows, 9 bred heifers, 10 heifer calves, 2 herd bulls, 5 bull calves. Herd averaged 8804 lbs. milk, 408 lbs. butterfat in C.T.A. last year. Accredited County. No abortion. For catalogs address

## MICHIGAN GUERNSEY BREEDERS' ASSOCIATION

Box 1018 - - - East Lansing, Michigan

## CATTLE

**For Sale** Choice Jersey Bulls, grandsons of Sybil's Gamboge of Whitehall. SMITH & PARKER, Howell, Mich. R. No. 4.

## HOGS

## DUROC

sows and gilts, bred to Junior Champion boar at State Fair. Service boars and open gilts. Premier breeder at State Fair. Lakefield Farms Clarkston, Michigan

**FOR SALE**—Duroc Gilts of type and quality, bred to High Orion No. 265227. Also a few spring boars at right prices. Shipped C. O. D. on approval. W. E. BARTLEY, Alma, Mich.

**O. I. C. HOGS on time** Write for Originators and most extensive breeders. THE L. B. SILVER CO., Box 196, Salem, Ohio

**For Sale—Reg. O. I. C. April & May Pigs** best of breeding. Shipped on approval. FRED W. KENNEDY & SONS, R. 1, Chelsea, Mich.

**O. I. C's.** Good last spring pigs, not akin also fall pigs, recorded free. OTTO SCHULZE & SONS, Nashville, Mich.

**CHESTER WHITES** fall pigs, service boars quality. F. W. ALEXANDER, Vassar, Mich.

**CHESTER WHITES** a few bred gilts, fall pigs, not akin. ALBERT DORR, Clinton, Mich.

**Registered O. I. C. Gilts** bred for April and May farrow. H. W. MANN, Dansville, Mich.

**SPOTTED POLAND CHINA.** fall boars and gilts for sale. Also bred sows. For particulars write LEVI SCHNEIDER, Pigeon, Mich.

**Large Type Poland Chinas** Fall pigs ready to ship, sired by my two great herd boars, L's. Big Wonder, by Slever's Smooth Wonder and Big Stratton by The Redeemer, and from my best sows. Priced reasonable. W. E. LIVINGSTON, Parma, Mich.

**Auction Sale, March 6** 25 Spotted Poland China Gilts, 3 boars, from State Fair prize winning stock. OSCAR VOELKER, Pigeon, Michigan.

**FOR SALE** Poland China Bred Gilts and Milking Shorthorn bull calves. CLAIR I. BROWN, Kalamazoo, Mich., R. 10.

**FOR SALE** Poland China boars of March and April farrow. Also some choice bred gilts, due to farrow in March and April. Every one immuned for cholera. WESLEY HILE, Ionia, Mich.

**LARGE TYPE** Poland China bred gilts, also fall boars and gilts. JAMES G. TAYLOR, Belding, Michigan.

**Red Polled** A few choice calves of both sex for sale. ROYSTON STOCK FARM, Will Cottle, West Branch, Mich.

## SHEEP

**SHEEP** Fine wool ewes, one load, bred to Dorset rams, one load bred to Black Face rams, for April lambs. All young and good shearers. LINCOLN & BRADLEY, North Lewisburg, Ohio.

**FOR SALE** Two hundred good mouth breeding ewes, bred to Shropshire rams, medium wool, good condition. LEWIS ERNST, Box 116, Saline, Mich., Phone 78.

**A FEW** bred Karabul ewes for sale, the right fur bearing kind. ANGUS HOME STOCK FARM, Davison, Mich.

**200 Head Breeding Ewes** mostly Delaines, bred to Reg. Shropshire rams. C. LEMEN, Dexter, Mich.

## HORSES

**For Sale Rising Three-Year-Old BELGIAN STALLION** Prince de Rubis. Sorrel in color, weight 1,900, sired by Rubis. Full brother to Manilla de Rubis 10750. Grand Champion Mare at 1927 International. He is also a half brother to the famous Percheron 9080. Dam of Prince de Rubis now owned by Michigan State College. JAMES LYNCH, Coral, Michigan.

**FOR SALE** Registered Belgian Stallion, six years old, color chestnut roan, weight 1,900 lbs. Good foal getter, broke, single and double. Cheap if taken at once. WM. BERTULEIT, Midland, R. 1, Mich.

**FOR SALE** 2 Percheron stallions, coming 3 and 4 yrs., black and dark gray. Are sound and will make ton stuff. Also Shorthorn bulls. Write H. B. Peters, Elsie, Mich.

**FOR SALE** A roan Belgian Stallion 5 yrs. old. V. J. GILBERT, 1424 Portage St., Kalamazoo, Mich.

**FOR SALE** Five yr. old Reg. Black Percheron stallion. J. B. SIMPSON, Charlotte, Mich., R. 10.

**FOR SALE** 4 year old Percheron Stallion. A splendid individual. IVAN BURSLEY, R. 6, Charlotte, Michigan.



# THE LATEST MARKET REPORT



## GRAIN QUOTATIONS.

Monday, February 20

### Wheat.

Detroit—No. 2 red at \$1.52; No. 2 white \$1.49½; No. 2 mixed at \$1.49½.  
Chicago—March 94½c; May 97½c; July 99½c.  
Toledo—Wheat, No. 2 red at \$1.52 @ \$1.53.

### Corn.

Detroit—No. 2 yellow \$1.03; No. 3 yellow \$1.00; No. 4 yellow 98c.  
Chicago—March 94½c; May 97½c; July 99½c.

### Oats.

Detroit—No. 2 Michigan 62c; No. 3 white 60c; heavy oats 2c premium.  
Chicago—March 54½c; May 55½c; July, old 52½c, new 53½c.

### Rye.

Detroit—No. 2 \$1.18.  
Chicago—March \$1.11; May \$1.11½; July \$1.05½.  
Toledo—\$1.17½.

### Beans.

Detroit—Immediate and prompt shipment \$7.90 f. o. b. shipping points.  
New York—Pea domestic at \$7.50 @ \$8.25; red kidneys \$8.00 @ \$8.75 to the wholesalers.

Chicago—Spot navy beans, Michigan choice, hand-picked, in sacks at \$6.45 @ \$6.50; dark red kidneys \$7.75.

### Barley.

Detroit—Malting 99c; feeding 96c.

### Seeds.

Detroit domestic seeds:—Cash clover \$17.25; March \$17.25; cash alsike \$16.00; March \$16.00; timothy at \$2.05; March \$2.07½.

### Hay.

Detroit—No. 1 timothy at \$13.00 @ \$14.00; standard \$12.50 @ \$13.50; No. 2 timothy \$10.00 @ \$11.00; No. 1 light clover, mixed \$13 @ \$14; No. 1 clover \$11.50 @ \$12.50; wheat and oat straw \$10.00 @ \$11.00; rye straw \$11.00 @ \$12.00 alfalfa hay, alfalfa choice at Chicago, \$15.00 @ \$25.00.

### Feeds.

Detroit—Winter wheat bran at \$42; spring wheat bran at \$41; standard middling at \$41; fancy middling at \$44; cracked corn at \$44; coarse corn meal \$42; chop \$41 per ton in carlots. Poultry feeds with grit \$49.00; without grit \$53.00 per ton.

### WHEAT.

Barring a brief flurry caused by rumors that Russia had bought some Canadian wheat, prices are continuing the sidewise move which started two months ago. The statistical situation is somewhat bearish but prices are low and their stability over this extended period indicates that conditions are well discounted. The market seems likely to continue on its present basis until the new crop outlook becomes more clearly defined.

### RYE.

Exports of rye usually increase after the opening of lake navigation and the volume disposed of during the spring months in each of the last three years would quickly absorb the amount now in the visible supply.

### CORN

Corn prices advanced 8 or 9 cents a bushel in the last two weeks. Primary receipts have declined fully 50 per cent and demand from industries, feeders in the corn belt and from distributors to the consuming trade in the east and southwest has continued active. Speculative buying played an important part in causing the upturn. The market probably is at a level that will check cash demand and attract some increase in offerings from the country, although the season for the main winter movement is drawing to a close.

### OATS.

Oats prices were but little influenced by the rise in corn. Receipts have been fully equal to trade requirements recently, so that terminal

stocks have not decreased. Stocks usually begin to move out more freely by the end of February, however, and the visible supply is already so small that moderate reductions probably would stimulate prices.

### SEEDS.

Warm weather is needed to stimulate buying interest in field seeds as, so far, sales have been scarce. Prices of red clover seed averaged lower again last week as demand failed to improve. Stocks of domestic seed are light, however, and imports are small so that once the demand gets under way, supplies will not last long and prices probably will work higher. Alfalfa seed continued in good demand and prices were marked irregularly higher. Beneficial rains in the southwest have improved planting conditions. Prices of clover seed other than red were mostly unchanged from a week ago.

### FEEDS.

Bran and middlings advanced in most markets last week and other feeds were firm. Demand is centered on prompt shipment stuff, however, with buyers seeding discounts for deferred shipment. The spring pig feeding season usually means an active demand for heavier feeds, but so far, consumers have made little effort to build up supplies in anticipation of their needs a little later on.

Chicago—Bran, \$35; standard middlings, \$33.50; feed, \$35.75; gluten feed, \$40.70; old process oil meal, \$52; tankage, \$65.

### POTATOES.

The potato market strengthened again last week. The spread under a year ago has steadily narrowed until now prices average only about 30 cents on the hundred pounds cheaper than a year ago. Stocks of good table potatoes are rapidly diminishing and many in the trade believe that the strength in the past few weeks is the forerunner of a general spring rise in prices. Northern round writes, U. S. No. 1, are quoted at \$1.65 to \$1.80 per

100 pounds, sacked, in the Chicago carlot market.

### EGGS.

More than three cents a dozen were lopped off the price of fresh eggs in the Chicago wholesale market last week as supplies continued to increase. Hatcheries are beginning to take a good many of the finest eggs, but with the lay steadily increasing, market offerings are liberal. Chain stores are featuring eggs at reasonable prices thus increasing trade output, but retailers generally are slow in passing any large share of the recent drastic cut in egg prices on to the consumer. Storage stocks of eggs are practically depleted.

Chicago—Eggs: fresh firsts, 29c; extras, 36 @ 37c; ordinary firsts, 27 @ 28c; dirties, 26c; checks, 26c. Live poultry: Hens, 25c springers, 32c; roosters, 20c; ducks, 28c; geese, 22c; turkeys, 28c.

Detroit—Eggs: Fresh candled and graded, 29½ @ 30½c. Live poultry: Heavy springers, 25 @ 26c; light springers, 30 @ 32c; heavy hens, 28 @ 29c; light hens, 23c; roosters, 16 @ 18c; ducks, 26 @ 30c; capons, 36 @ 38c.

### BUTTER.

Price changes in the butter market during the past week have been negligible in spite of the general feeling that it may be necessary for prices to decline before demand will equal the supply. Production reports from the chief dairy sections indicate a steady increase in the butter make, especially in Minnesota, Wisconsin, and Iowa. Prices on 92 score creamery were: Chicago, 44½c; New York, 45c; Detroit, 41 @ 44c.

### GRAND RAPIDS.

Potatoes, 95c @ \$1 bu; onions, \$1 bu; leaf lettuce, 8 @ 9c lb; radishes, 50 @ 65c doz. bchs.; apples, \$1.50 @ \$3.50 bu; beans \$7.20 cwt; wheat, \$1.32 bu; buckwheat, \$1.50 cwt; pork, 8 @ 11c lb; beef, 6 @ 16c lb; veal, 15 @ 18c lb; hens, 15 @ 25c lb; chickens, 16 @ 24c lb; eggs, 27 @ 29c doz; butter-fat, 48c lb.

# NITROPHOSKA

## Small Amounts Give Big Results

NITROPHOSKA is a new, complete air-nitrogen fertilizer. It contains 15% nitrogen (equal to 18.2% ammonia), 30% available phosphoric acid and 15% potash.

Because Nitrophoska is concentrated, a small amount produces wonderful results. 300 lbs. per acre for potatoes and vegetables gives astonishing increases in yield.

# NITRO- PHOSKA

IS  
COMPLETE  
EFFECTIVE  
CONCENTRATED  
AVAILABLE  
ECONOMICAL  
CONVENIENT  
SAFE  
PROFITABLE

Try some of this new synthetic (air-nitrogen) fertilizer on potatoes or vegetables. Nitrophoska has more crop growing power in less bulk than any other fertilizer. 300 lbs. per acre is more than equal to 1000 lbs. of many common mixed fertilizers. Use it broadcast, or in the row, apply before planting and mix well with soil. Excellent results are certain.

If your dealer cannot supply Nitrophoska we will ship, freight paid, to any railroad station in Ohio, Indiana or Michigan, on receipt of price, at \$6.00 per 100 lbs. Lower price on carlots. Fill out form below and mail at once with P. O. Money Order to the

**SYNTHETIC NITROGEN PRODUCTS CORPORATION**  
285 MADISON AVENUE, NEW YORK

### ORDER COUPON

Ship me ..... bags of Nitrophoska.

Ship to (give full name, plainly written).

P. O. Address.....State.....

My freight station is.....

on.....(WRITE PLAINLY) railroad.

Enclosed is \$..... to pay cost at \$6.00 per bag.



"It's Nitrogen from the Air"

## Live Stock Market Service

Monday, February 20

### DETROIT

#### Cattle.

Receipts 767. Market steady.  
Good to choice yearlings  
dry-fed ..... \$11.00 @ 13.00  
Best heavy steers, dry-fed 10.25 @ 12.50  
Handy weight butchers... 9.00 @ 10.75  
Mixed steers and heifers. 9.00 @ 10.25  
Handy light butchers .... 8.00 @ 9.75  
Light butchers ..... 6.00 @ 8.25  
Best cows ..... 7.00 @ 9.50  
Butcher cows ..... 6.00 @ 8.00  
Cutters ..... 5.50 @ 6.00  
Canners ..... 4.75 @ 5.50  
Choice light bulls ..... 6.00 @ 8.50  
Bologna bulls ..... 7.00 @ 8.00  
Stock bulls ..... 6.00 @ 7.25  
Feeders ..... 7.00 @ 9.25  
Stockers ..... 7.00 @ 8.25  
Milkers and springers.... 75.00 @ 115.00

#### Calves.

Receipts 569. Market steady.  
Best ..... \$17.50 @ 18.00  
Others ..... 7.00 @ 17.00

#### Sheep and Lambs.

Receipts 684. Market 25c higher.  
Bulk good lambs.....\$ 13.00  
Best lambs ..... 16.20  
Fair lambs ..... 12.50 @ 14.25  
Light lambs ..... 10.00 @ 12.25  
Yearlings ..... 12.00 @ 13.25  
Fair to good sheep ..... 6.00 @ 8.50  
Buck lambs ..... 7.50 @ 12.25  
Culls and common ..... 3.00 @ 5.50

#### Hogs.

Receipts 1,337. Market 15 @ 25c higher.  
Pigs ..... \$ 7.75  
Mixed hogs ..... 8.85  
Lights ..... 8.50  
Roughs ..... 6.75  
Good Yorkers ..... 9.00  
Stags ..... 5.50  
Extreme heavies ..... 7.25 @ 8.00

### CHICAGO.

#### Hogs

Receipts 58,000. Market uneven; light weight hogs inactive; demand 10 @ 15c higher; butchers less active, strong to 10c higher; tops \$8.60, some held higher; bulk good and choice 170-210-lb. weight \$8.45 @ 8.60; 220-250-

lb. \$8.25 @ 8.45; 260-300-lb. \$8.15 @ 8.30; 140-160-lb. \$8.00 @ 8.50; packing sows \$7.10 @ 7.35; bulk desirable pigs \$7.25 @ \$7.75.

#### Cattle

Receipts 13,000. Market most killing classes strong 25c higher; rather slow at advance; shipper grades showing more upturn in steers; light yearlings selling at \$12.50 @ 13.50; better grade fat cows slightly higher; vealers strong; choice fat steers \$15.75, several loads \$14.00 @ 14.85, bulk selling at \$14.00 down; sausage bulls \$8.00 @ 8.50; light vealers \$14.00 @ 15; medium weights \$13.50 and below; shippers \$14.00 @ 15.00.

#### Sheep and Lambs

Receipts 13,000. Market shipping demand fairly broad; supply of choice and weighty lambs limited; fat lambs active, fully 26c higher; bulk 80-90-lb. lambs nearly \$15.75 @ 16.00; desirable to weighty butchers \$16.25, best held higher; top Colorados \$15.00; early vealers on bid 92-98-lb. lambs \$15.25 @ \$15.75; sheep steady; good fat ewes \$9.00 @ 9.25; 205-220-lb. ewes \$8.00; feeding lambs steady \$14.00 @ 15.75; mixed fat and feeding lambs to traders \$16.00.

### BUFFALO.

#### Hogs

Receipts 11,500. Hold over 741; market 15 @ 25c higher; bulk 170-190-lb. \$9.25; 200-225-lb. \$9.00 @ 9.15; 240-260-lb. \$8.75 @ 8.85; 280-320-lb. \$8.50 @ \$8.60; pigs \$8.25 @ 8.50; 130-150-lb. \$8.75 @ 9.00; packing sows \$7.00 @ 7.50.

#### Cattle

Receipts 1,600. Market steady, 25c higher; better grades at advance; good 1,000-lb. steers \$14.50; bulk medium grade \$12.65 @ 13.00; heifers \$7.00 @ \$8.50, few \$9.00.

#### Calves

Receipts 1,200. Market steady; good to choice vealers \$18.00; common to medium \$12.00 @ 16.50.

#### Sheep and Lambs

Receipts 6,500. Market 25c higher; stots up more; bulk 78-90-lb. lambs \$16.50; thro-offs \$13.50 @ 14.00, few \$14.50; yearlings \$13.00 @ 14.50; fat ewes \$8.00 @ 9.50.

## HOG MARKET ABSORBS BIG RUNS

HOG markets have been absorbing heavy receipts in the last three weeks. Receipts probably have passed the peak for the winter and a shrinkage of 25 to 35 per cent is likely to be seen in the next two months. Apparently, speculative demand is ready to absorb the excess of meats and lard above current distributive needs at the level of prices which has prevailed recently, so that this seasonal shrinkage in arrivals should bring somewhat higher prices.

Domestic demand for hog products

is satisfactory as consumers are being attracted by lower retail prices. Foreign demand continues disappointing, however. Exports of hams and shoulders since January 1 have been less than half as large as in the same period a year ago. Exports of bacon, however, have been nearly as large and lard exports were slightly larger than last year. Supplies of hogmeats in British and German markets from European sources continue heavy. The hog population in Germany on December 1 was 22,880,000 compared with 19,412,000 a year previous, so that market supplies are likely to remain heavy for a number of months.

## 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. Rate 9 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 7 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order. Live stock advertising has a separate department and is not accepted as classified. Minimum charge 10 words.

Words	One time	Four times	Words	One time	Four times
10.....	\$0.90	\$2.80	20.....	\$2.34	\$7.28
11.....	.99	3.08	21.....	2.43	7.56
12.....	1.08	3.36	22.....	2.52	7.84
13.....	1.17	3.64	23.....	2.61	8.12
14.....	1.26	3.92	24.....	2.70	8.40
15.....	1.35	4.20	25.....	2.79	8.68
16.....	1.44	4.48	26.....	2.88	8.96
17.....	1.53	4.76	27.....	2.97	9.24
18.....	1.62	5.04	28.....	3.06	9.52
19.....	1.71	5.32	29.....	3.15	9.80
20.....	1.80	5.60	30.....	3.24	10.08
21.....	1.89	5.88	31.....	3.33	10.36
22.....	1.98	6.16	32.....	3.42	10.64
23.....	2.07	6.44	33.....	3.51	10.92
24.....	2.16	6.72	34.....	3.60	11.20
25.....	2.25	7.00	35.....	3.69	11.48

## Special Notice

All advertising copy discontinuance orders or change of copy intended for the Classified Department must reach this office ten days in advance of publication date.

## REAL ESTATE

**STROUT'S SPRING FARM CATALOG JUST OUT!** Large illustrated buyers guide crammed with unusual bargains from 19 states. Money-making equipped dairy, poultry, fruit farms; grain, general and truck farms; roadside businesses, village places, summer homes on mountain, lake and river. Pp. 42 describes lakeview farm 240 acres near village, 1/20 acres level tillage, abundance fruit, good 9-room house, furnace and lights, large cement-basement barn, other bldgs; a money-maker and only \$3,600 with horses, 6 cattle, sheep, poultry, implements, tools, feed, crops and firewood included; part cash. Hundred others, up to \$20,000 and one Strout buyer reports a 163 acre farm costing \$4,500 returned \$2,500 from timber and \$3,300 from 35 acres sold, \$1,000 worth produce and stock, and 120 acres good land left. There's a bargain for you too in this handsome big catalog. Write today, at once, for your free copy. Strout Agency, 1105-BC Kresge Bldg., Detroit, Mich.

**BUY UPPER WISCONSIN FARM LAND THIS YEAR.** This Cloverland district offers you fine soil—the best for dairying—barley, oats, rye, hay, potatoes, root crops. Never had a crop failure. Clover grows wild. Plenty sunshine and rain. Numerous lakes and rivers. Excellent drainage. Plenty hunting, fishing, and trapping. Good roads. High schools, rural schools, churches, cream routes, telephones. Only a few hours to largest markets in United States. 40 or 80 acre tracts from \$12 to \$30 per acre. Lakeland priced a little higher. Small down payment—10 years on balance. Over 600 families here now. We show you how to start. Write for booklet "Happy Homes and Farms that Pay in Happy Land"—it shows pictures—settlers' letters—and tells you everything. Edward Hines Farm Land Co., Room 2152, 100 W. Monroe St., Chicago, Ill.

**IN THE SAN JOAQUIN VALLEY** of California general farming is a paying business, feeding millions of people in towns and cities. Alfalfa combined with dairying, hogs, and poultry, yields a good income. A small one-family farm, with little hired labor, insures success. You can work outdoors all the year. Newcomers welcome. The Santa Fe Railway has no land to sell, but offers a free service in helping you get right location. Write for illustrated San Joaquin Valley folder and get our farm paper—"The Earth" free for six months. C. L. Seagraves, General Colonization Agent, Santa Fe Railway, 912 Railway Exchange, Chicago.

**30 ACRES AMONG FINE FARMS—Equipped; On Easy Terms;** Beautiful home spot on improved highway, short walk motor bus to city; all fertile tillage, well fenced, apple orchard, peaches, grapes and berries; homelike 5-room cottage, good 60 ft. cement basement barn, sun house, etc. Age forces sale, only \$3,400 with horses, cow, poultry, implements, hay, wheat in ground, etc., included; \$1,300 cash needed. Loyd M. Howell, Strout Agency, Cor. Cherry & Jefferson Sts., Mason, Mich.

**AN OPPORTUNITY RARELY OFFERED—to secure improved farm homes, 80 acres up, direct from owner, no profits, no commission; in famed dairy section Wisconsin; Bread and butter State Minnesota; Rich prairie soil North Dakota; fertile lands near best markets in Michigan. \$200 to \$1,000 cash. Balance 36 years at 5%. Write today. Federal Land Bank, St. Paul, Minn., Dept. 33.**

**COME TO EASTERN OKLAHOMA.** We have bargains in improved farms of all sizes, adapted for grain, stock, and poultry raising, dairying and fruit growing. Excellent markets, good school and church facilities in all year climate that makes life worth living. Write today for free literature and price list. National Colonization Co., Room 122, 13 E. 3rd St., Tulsa, Okla.

**FOR SALE—160 acre farm in Oceana Co., clay soil, all tillable, four miles north of Holton, improved roads, twelve room house, furnace, and bath. Large basement barn. Price \$16,000. Minnie Ayers, Marathon, N. Y.**

**STANISLAUS COUNTY, California—where farmers are prosperous. Crops growing all year round. Land priced low. Write free booklet, Dept. 6, Stanislaus County Development Board (County Chamber of Commerce), Modesto, California.**

**FOR SALE—120 acre farm, including 30 acres timber, orchard, horses, cows, pigs, equipment, etc. 8-room and 4-room house on farm, 1 1/2 miles from town. Will sell cheap at reasonable terms. Apply Box 256, Harbor Springs, Mich.**

**FOR SALE—50 acres stock and tools in Bainbridge township. Good land. Well fenced. Near Benton Harbor. Albert Scherer, Coloma, Michigan.**

**FOR SALE—238-acre farm, clay loam, fine buildings, 20 acres maple timber, electric plant, \$50.00 per acre. Terms. G. D. Rowe, Ewart, Mich.**

**120-ACRE FARM FOR SALE** in good shape. Owner, Box 197, Almont, Mich.

**BEFORE BUYING farm write Wingard, Plymouth, Michigan for list of Michigan farm bargains.**

## WANTED FARMS

**WANTED—To hear from owner of farm for sale for spring delivery. O. Hawley, Baldwin, Wis.**

## FARMS FOR RENT

**FARM FOR RENT—Kiskadden Farm, 304 acres, good buildings, located 3 miles southeast of Belleville, Mich. Twenty acres apple orchard, trees 15 to 20 years old. Place farmed by owner last thirty years. Inquire at farm, or D. S. Kiskadden, 1612 Bull Bldg., Detroit.**

**FARM TO RENT** to responsible party, with family, for dairy purposes. 162 acres near Farmington, Close to Detroit. References required. Julius Porath, 5959 W. Warren, Detroit.

## EXCHANGE

**WANTED—Flour and feed mill in exchange for 95-acre farm. 12940 Patton Ave., Detroit, Mich.**

## MISCELLANEOUS

**FOR SALE CHEAP—I Manure Box** made from 1 1/4 white pine, price \$20.00; two horse wagons \$12.00; 1 American riding Cultivator \$8.00; 1 Dick hand and power feed cutter \$10.00; 1 Giant paris green duster \$3.00. For particulars, write Ed. Poupart, 1011 Yorkshire Hy., Grosse Pointe, or call Hick 9771.

**125 GOOD WHITE ENVELOPES** and 125 full size unruled Letter Heads all neatly printed and prepaid, one dollar. Money back if wanted. Other good printing at low prices. Address, The Braytons, Freeport, Michigan.

**WHY BLAME THE BULL** when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 85 cents for one cow, \$2.90 for five cows, postpaid. Woodstock Farm, Renton, Route 2, Box 49C, Washington.

**OUR 1928 CATALOG** just from press. 84 pages showing largest line of Poultry Supplies in the World. (Over 300 items.) Write today for your copy free. Brower Mfg. Co., C-27, Quincy, Ill.

**VIRGIN WOOL YARN** for sale by manufacturer at bargain. Samples free. H. A. Bartlett, Harmony, Maine.

**QUILT PIECES,** Lovely percales, gingham, 3 lbs. \$1.00. Mrs. George Morgan, Vicksburg, Mich.

## FARM MACHINERY

**HUMMER—SATTLEY IMPLEMENTS:** Plows, Disc, lever, tandem and tractor harrows. Spreaders, cream separator, cultivator, rotary hoe, etc. Ask for catalogue. Seth S. Bean, Jackson, Mich.

**HUMMER-SATTLEY:** 70 years in business, get prices on tractor, orchard and garden disc harrows. Seth S. Bean, Jackson, Mich.

## PET AND LIVE STOCK

**REGISTERED FOXES—Write** for ranching offer, 100% increase guaranteed. Booklet; terms. Breeder-Agents wanted. Cleary Bros., Empire Bldg., Seattle Washington.

**RABBITS—Make Big Profits** with Chinchilla Rabbits. Real money makers. Write for facts. 892 Conrad's Ranch, Denver, Colorado.

**RAT TERRIOR PUPS,** bred for ratters. Satisfaction guaranteed. Crusaders Kennels, Stafford, Kansas.

## MATTRESSES

**MATTRESSES** made any size, low factory prices. Catalog free. Peoria Bedding Company, Peoria, Ill.

## FRUIT TREES AND NURSERY STOCK

**TIFTON'S RELIABLE PLANTS.** Frostproof Cabbage, Early Jersey and Charleston Wakefield, Flat Dutch, Succession, Danish Ballhead, Copenhagen Market and Golden Acre. Tomato Plants: Bonnie Best, Greater Baltimore, Livingston Globe, John Bear and Earliana, Bermuda and Prize Taker Onion Plants, Ruby King and Bull Nose Pepper Plants. Postpaid, 250, \$1.00; 500, \$1.50; 1,000, \$2.50. Express Collect \$1.50 per 1,000. Care used in packing. We guarantee to arrive in good condition. Tifton Plant Co., Tifton, Ga.

**PEACH TREES,** \$5 per 100 and up. Apple Trees, \$7.50 per 100 and up. In large or small lots direct to planters, by freight, parcel post, express. Plums, pears, cherries, grapes, nuts, berries, pecans, vines; ornamental trees, vines and shrubs. Free catalog in colors. Tennessee Nursery Co., Box 125, Cleveland, Tenn.

**100 MASTODON GENUINE,** thrifty, northern grown everbearing strawberry plants \$2.00. Not cheapest, but selected for success, 1,000 \$12.50, 1,000 Champion \$8.50, Dunlap \$3.25, Gibson \$3.75, 1,000 heavy-rooted grape plants \$20.00. 40 varieties. Catalog free. Westhauser's Nurseries, Sawyer, Mich.

**STANDARD NURSERY STOCK,** 6 1/2 new. Large, small fruits. Cantaloupe flavored plum, flowers. Hardy, cheap. Catalog. Vikla Nurseries, Lonsdale, Minnesota. Mfrd.

**MILLIONS,** nice frost proof cabbage, and tomato plants, leading varieties, \$1, 1,000. Bermuda Onion plants \$1.50 1,000. Clark Plant Co., Thomasville, Georgia.

**STRAWBERRIES,** Mastodon Everbearing plants, from originators patch, eleven other varieties, prices interesting. Catalog free. E. M. Kime & Sons, Twelve Mile, Ind.

**PLANTS:** Strawberries \$3.00, 1,000; 100 Mastodons, \$2.00; Raspberries, Blackberries, Grapes. Wholesale price list. Cloverleaf Nursery, Three Oaks, Mich.

**100 MASTODON EVERBEARING** \$1.75. Catalogue free. Edwin Lubke, New Buffalo, Michigan.

## SEEDS

**REGISTERED AND CERTIFIED WORTHY OATS,** certified Wisconsin Six Row, Barley, registered and certified Picket Yellow Dent Corn, certified Grimm Alfalfa. Best of quality, satisfaction guaranteed. Write for seed circular. Fairgrove Associated Seed Growers, W. R. Kirk, Secy., Fairgrove, Michigan. Members of Michigan Crop Improvement Association.

**CLOVER—\$18 per bu.** Home grown double reseeded. Guaranteed to comply state seed law. Sweet clover, scarified, \$3.90. Hardy northwestern alfalfa, \$9.90 per bu. State certified Grimm at lowest prices. New timothy, \$1.90 per bu. Sacks included. Write for samples and circular matter. Frank Sinn, Box 457, Clarinda, Iowa.

**WOLVERINE OATS** absolutely pure, color and germination perfect. Very heavy. One dollar bushel, bags free. Freight prepaid, Michigan, on over twenty bushel orders received before March. Checks cashed early March when seed shipped. Satisfaction guaranteed. A. B. Cook, Owosso, Mich.

**REGISTERED AND CERTIFIED SEED CORN—**Clement's white cap yellow dent, Picketts yellow dent and Michigan yellow dent (a very early dent). Certified worthy oats, 2-row barley and sweet clover seed. Dept. A. Paul C. Clement, Britton, Michigan.

**MICHIGAN REGISTERED Certified Hardigan Alfalfa** seed, certified by Michigan Crop Improvement Ass'n. Purity 99.50 cleaned and scarified. Price \$32.25 per bushel, immediate delivery. Irwin Reibling, Elkton, Mich.

**REGISTERED & CERTIFIED Polar Dent Seed Corn** and Gilbert's Yellow Dent, the corn that made Michigan's highest official record of 112 bu. shelled corn per acre in year 1925. Ernest Gilbert, Waldron, Michigan.

**SCIENCE AND PRACTICE** demonstrate Improved American Banner wheat, Wolverine oats, Improved Robust beans best for Michigan. A. B. Cook, Owosso, Mich.

**SWEET CLOVER SEED,** white blossom, grown northern Michigan. Recleaned, scarified. Sealed bags. Delivered your station \$6.00 bushel. Thos. Buell, Elmira, Mich.

**HIGH YIELDING STRAIN** Certified and Registered Golden Glow Seed Corn ripened five successive seasons near Manistee, Mich. Kate L. Renisch, Free soil, Michigan.

**YELLOW DENT SEED CORN.** Germination high and guaranteed every way. Write us before buying. Geo. W. Needham, Saline, Mich.

**FOR SALE—Certified White Rural Seed Potatoes.** Jas. Lynch, Coral, Michigan.

**CERTIFIED WOLVERINE OATS,** Michigan's leading variety. C. D. Pinkbener, Clinton, Mich.

## TOBACCO

**SPECIAL OFFER—Chewing or smoking 5 lbs. \$1; 10, \$1.75; Cigars 50 for \$1.95; pay when received, money refunded if not satisfactory. Farmers Association, West Paducah, Kentucky.**

**GUARANTEED HOMESPUN TOBACCO—Chewing, 5 pounds, \$1.25; 10, \$2. Smoking, 10, \$1.50. Pipe Free! Pay postman. United Farmers, Bardwell, Kentucky.**

**HOMESPUN TOBACCO—Ripe, guaranteed. Chewing 5 lbs. \$1.50; 10, \$2.50; 20, \$4.50. Smoking 5 lbs. \$1.25; 10, \$2.00; 20, \$3.50. Farmers Union, Mayfield, Ky.**

**HOMESPUN TOBACCO—Chewing 5 lbs. \$1. Smoking 5 lbs. 75c. Pay when received. Pipe free. Farmers Union, A5, Paducah, Ky.**

**TOBACCO: Kentucky Sweetleaf, Mellow, Aged. Smoking 10 pounds \$1. Chewing \$1.50. Pay when received. Kentucky Farmers, Wingo, Kentucky.**

## POULTRY

**8 VARIETIES** Record of Performance Male Matings. Breeding cockerels, pullets, and chicks. Free catalog giving big early order discounts. Beckman Hatchery, Box 57, Grand Rapids, Mich.

**S. C. R. I. RED COCKERELS—good size; color.** Prices reasonable. Wesley S. Hawley, Route 3, Ludington, Michigan.

**MALLARD DUCKS,** trio \$5, singles \$2. M. R. Hodgdon, Birmingham, Mich.

## BABY CHICKS

**INSURE YOUR SUCCESS,** buy Aseltine Barred Rocks or White Leghorns. Pedigreed males from Dam's laying over 200 eggs head our flocks. Blood tested five consecutive years. Trapping 400 pullets under Record of Performance supervision. Reasonable prices for this quality. Write for circular or visit our farm. Aseltine Poultry Farm, Comstock Park, Mich.

**WHITE LEGHORN CHICKS** from big white eggs. Shipped anywhere c. o. d. Guaranteed to live. Low prepaid prices. Trapped, pedigreed foundation stock. Egg contest records to 314 eggs. Hundreds of cockerels, pullets, hens. Bargain prices. Big 28th annual catalog free. George B. Ferris, 934 Union, Grand Rapids, Michigan.

**MICHIGAN CERTIFIED White Leghorns** Chicks and Hatching Eggs. First Pen Michigan International Egg Laying Contest, 1926-1927, Record 2753 eggs in 52 weeks which is the highest record ever made in Michigan Contest. Grade A. Chicks \$16.00 per hundred. Write for circular and prices on special matings. Harry Burns, Millington, Mich.

**BABY CHICKS—You can buy your early hatched Michigan Accredited chicks** right here at home. First hatch January 15. Also booking orders now for spring delivery at special discount. Send for catalog and prices. Brummer-Fredrickson Poultry Farm, Box 28, Holland, Michigan.

**BARRED ROCK CHICKS** and Hatching Eggs. Record at Michigan International Egg Laying Contest; winners heavy breeds 1927. Highest Barred Rock pen from Michigan past three years and to date in present contest. F. E. Fogle, Okemos, Michigan.

**ACCREDITED WHITE LEGHORN CHICKS,** Hollywood strain. Contest pullets now average 25 ounce eggs per dozen. 1926 contest pen averaged 239 eggs each. Customer's profit \$3.00 per bird. Also Anconas, Rocks. Catalogue. Wyngarden Hatchery, Box 14, Zeeland, Mich.

**CHICKS.** We have had eighteen years' experience in hatching chicks of standard varieties. We personally inspect and cull our flocks which are good producers, healthy, and pure-bred. Write for prices. Special discount on five hundred and one thousand lots. Shepard Poultry Farm & Hatchery, Litchfield, Mich.

**BABY CHICKS** from flocks mated with cockerels from best laying strains. Closely culled for production, type, and color. Eight most popular breeds. 100% live delivery. Post paid. Write for prices. Homer Hatchery, Homer, Michigan.

**MYERS PURE-BRED CHICKS,** 100% live delivery, postage prepaid. Four leading breeds, White Leghorns, White Wyandottes, Barred Rocks, R. I. Reds. Flocks bred for egg production. Send for descriptive circular. Myers Hatchery, Mt. Pleasant, Mich.

**WHITTAKER'S REDS, BOTH COMBS.** Grade A. R. O. P. Trapped. Grade B, Michigan, Certified. Michigan's greatest color and egg strain. Chicks and eggs. Catalog free. Interlakes Farm, Box 9, Lawrence, Michigan.

**CHICKS,** genuine English White Leghorns, overlying combs and non-setters. Barred Rocks 203-233 records. See display ad. Hillside Hatchery, Holland, Michigan.

**BABY CHICKS—From our extra large type Eng. W. Leg.** Heavy producers. Get our circular before ordering elsewhere. Prices low, only \$107.50 per 1,000. A-1 chicks. Model Poultry Farm, Zeeland, R. 4, Michigan.

**VIGOROUS BABY CHICKS.** Flocks culled for vitality, type, and egg production. Barred, White, Buff Rocks, Reds, \$14; Wyandottes, Buff Orpingtons, \$15; White Leghorns, \$12.50. Waterville Hatchery, Waterville, Ohio.

**BETTER BABY CHICKS** from State Fair winners, production class. Eighty per cent of our chicks go to old customers. Eleven breeds. Booking orders. Living prices. Write. Litchfield Hatchery, Litchfield, Mich.

**RILEY'S CHICKS—Produced** from selected pure bred-to-lay and exhibition flocks of healthy, carefully culled breeders. Reasonable prices. Folder free. White Leghorns, Barred Rocks, White Wyandottes, Sunnybrook Poultry Farm, Hillsdale, Mich.

**BABY CHICKS** of all standard varieties. Flocks carefully culled for laying, several years, by M. S. C. poultry men. Write for prices. Clinton County Hatchery, Maxwell and Kees, Prop's., St. Johns, Mich.

**BABY CHICKS.** White and Brown Leghorns 12c. Single Comb Reds, Barred and White Plymouth Rocks 13c. White Wyandottes, Buff Orpingtons 14c. Jersey Black Giants 20c. In 100 lots, E. G. Burger, Crestline, Ohio.

**BARRED ROCK CHICKS** of the better grade our Specialty; Michigan Accredited. Strong and husky; Bred-To-Lay strains. Reasonably priced. Write for information. Howe's Accredited Hatchery, Essexville, Mich.

**ENGLISH LEGHORNS** free from diarrhea. Customer reports 350 pullets averaged 208 eggs for year. Chicks. Prepaid \$14 per hundred, \$5 for 500, \$120 a 1,000. \$1 per hundred books order from this ad. Pleasant View Poultry Farm, Adrian, Mich.

**S. C. W. ENGLISH LEGHORN CHICKS,** March delivery \$11.00 per 100. Discount on orders of 500 or more. Satisfaction and live delivery guaranteed. Henry Waterway, Holland, Mich., R. 6.

**STATE ACCREDITED Barred Rock Chicks** from T. B. and B. W. D. tested flocks. You must be satisfied. Lone Pine Poultry Farm, Leo, V. Card, Hillsdale, Mich.

**MONEY IN QUALITY CHICKS.** Poultry experts and satisfied customers back our profit making chicks. Illustrated catalog free. Get the facts. Windmill Pointe Hatchery, 1318 Alter Road, Detroit.

**BABY CHICKS AND EGGS** Superior Ringlet Barred Rocks, Rose Comb Reds, Tancred and English White Leghorns. Catalogue. Wyndham's Ideal Poultry Yards, Tiffin, Ohio.

**LOOK! 100,000 chicks** 9c up, 20 varieties. Using many 200 to 312 egg record bred ROP cockerels. Send for free catalog giving big early order discounts. Lawrence Hatchery, Grand Rapids, Mich.

**BABY CHICKS—S. C. White Leghorns \$10 per 100.** Barred and White Rocks \$13 per 100. Send for catalogue. Snowflake Poultry Farm, Leo, Van Schie, Prop., Route 5, Middleville, Mich.

**FOLKS LISTEN.** We increased our capacity, improved strains of chicks and never quoted such low prices. Write for price list. Merrill & Clare Hatcheries, Merrill, Michigan.

**BABY CHICKS** and eggs for hatching from bred to lay Buff Leghorns. Hillcrest Poultry Farm, Bath, Mich.

**BABY CHICKS—Rocks, Reds, and Leghorns.** Each week beginning Feb. 13. All stock bloodtested and Michigan Accredited. Pierce Hatchery, Jerome, Mich.

**BABY CHICKS \$6.00 per 100.** Seconds, strong, vigorous chicks, no cripples. Robt. Christopher, R. 4, Holland, Michigan.

**QUALITY BARRED ROCK CHICKS.** Michigan Accredited. Pincroft Poultry Farm & Hatchery, Owosso, Mich. Write for circular.

## TURKEYS

**WHITE HOLLAND TURKEYS** and White Pekin Ducks, pure-bred healthy stock. Addressed stamped envelope for reply. Alden Whitcomb, Byron Center, Mich.

**EDGEWOOD GIANT BRONZE—Large** hardy Northern turkeys. Sire winner at International, son of 1926 All-American grand champion. Mrs. Edgar Case, Benzonia, Mich.

**TURKEYS,** all breeds. Strictly pure-bred. Unrelated pairs and trios, reasonable prices. Eastern Ohio Poultry Farm, Beallsville, Ohio.

**PURE-BRED MAMMOTH BRONZE TURKEYS,** Champion and Goldbank strains. Earl & Merle Phelps, Dowagiac, Mich.

**BRONZE TURKEYS** and White Guineas. Mrs. M. B. Noble, Saline, Mich.

## AGENTS WANTED

**NEW HOUSEHOLD DEVICE** washes—dries windows, sweeps, cleans walls, scrubs, mops. Costs less than brooms. Over half profit. Harpers, 173 Third St., Fairfield, Iowa.

**WANTED—Farmer or farmer's son or man to travel** in country. Steady work. Good profits. McConnon & Company, Dept. F 26, Winona, Minn.

## HELP WANTED

**MARRIED MAN** by the year, for farm job. Experienced with hogs. Wife willing to board for hands. Modern residence. Good living conditions. State experience and wages. Address Box 137, Michigan Farmer, Detroit.

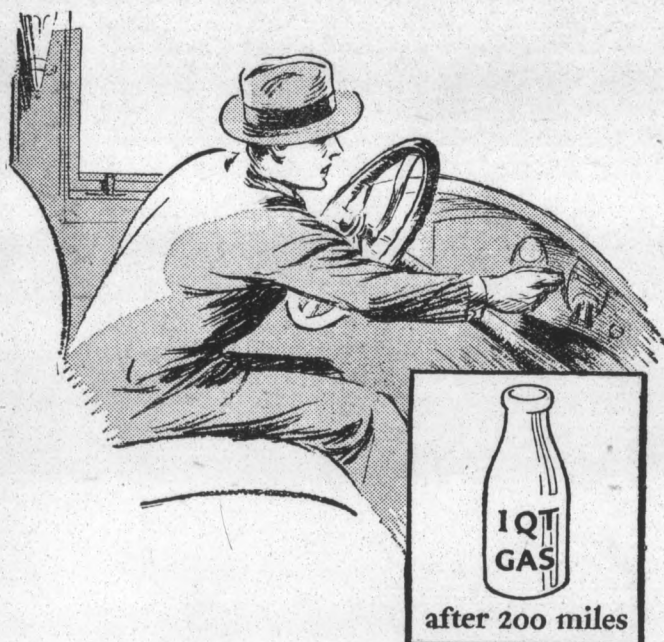
**HELP WANTED.** Working Herdsman, single, must be a good milker, good care taker and reliable. Give age, experience, wages expected and reference. H. F. Probert, Route 1, Jackson, Mich.

**WANTED—MILK ROUTE SALESMAN.** Must be between 25 and 35 years of age and married. \$200 cash bond required. Steady work and good future. Give particulars in application. Freeman Dairy Company, Flint, Mich.

**EARN \$5** gathering evergreens, roots, herbs. Booklet free. Botanical, 77, New Haven, Conn.

**WANTED—Experienced single man for farm work.** Oscar Paul, Ann Arbor, Mich., R. 6.

# Gasoline is no lubricant



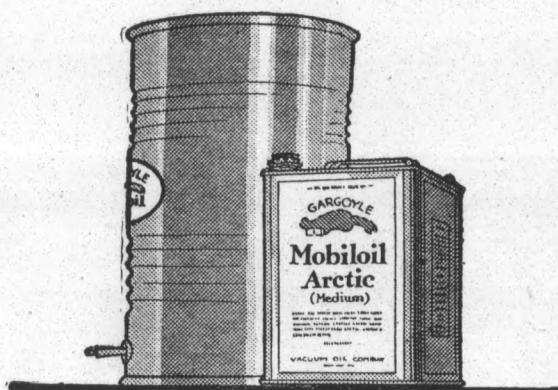
Today's added winter mileage intensifies an old problem.

The increase in winter driving has brought in many so-called "winter oils". Many of these oils are unusually light in body. Many are produced solely to give you easy starting.

A cold morning finds this thin oil in your crankcase. You start your cold engine. You must use your choke freely. The cold combustion chambers fail to vaporize all the fuel. Some of the gasoline is forced by the piston rings.

Gasoline dilution begins. In 200 miles of driving you may easily get a full quart of gasoline mixed with your lubricating oil.

## Two winter troubles minimized



For winter use in most cars we recommend Gargoyle Mobiloil Arctic. Gargoyle Mobiloil Arctic meets the gasoline dilution problem with scientific exactness.

Mobiloil Arctic is quick-flowing without being a "light oil". It is fluid enough to give you easy starting at zero, and at the same time has a full rich body that will provide thorough lubrication for all friction surfaces.

If your car is listed in the Chart on this page Mobiloil Arctic is the oil you should use this winter. For other cars, consult the complete Mobiloil Chart—any Mobiloil dealer has it.

### SPECIAL WINTER CHART

#### Mobiloil Arctic

should be used in Winter (below 32°F.) in all cars marked\*.

PASSENGER CARS	1927	1926	1925	1924
Auburn all except Models 4-44 & 6-66	*	*	*	*
Buick	*	*	*	*
Cadillac	*	*	*	*
Chandler except Special Six	*	*	*	*
Chevrolet	*	*	*	*
Chrysler 4-cyl.	*	*	*	*
Dodge Brothers	*	*	*	*
Eclair all except Models 6-65 & 4 cyl.	*	*	*	*
Erskine	*	*	*	*
Essex	*	*	*	*
Flint	*	*	*	*
Hudson	*	*	*	*
Hupmobile	*	*	*	*
Jordan	*	*	*	*
La Salle	*	*	*	*
Locomobile	*	*	*	*
Marmion 8-cyl.	*	*	*	*
Moon	*	*	*	*
Nash	*	*	*	*
Oakland	*	*	*	*
Oldsmobile	*	*	*	*
Overland & Overland Whippet	*	*	*	*
Packard Six	*	*	*	*
" Eight	*	*	*	*
Paige	*	*	*	*
Peerless Models 60, 80 & Eight	*	*	*	*
Pontiac	*	*	*	*
Reo	*	*	*	*
Star	*	*	*	*
Studebaker	*	*	*	*
Valve	*	*	*	*
Willys-Knight	*	*	*	*

If your car is not listed above, consult the complete Mobiloil Chart at Mobiloil dealers' for your winter grade of Mobiloil.

**GARGOYLE**  
  
**Mobiloil Arctic**

**VACUUM OIL COMPANY**

New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, St. Louis, Pittsburgh, Cleveland, Cincinnati, Minneapolis, Kansas City, Dallas

Other branches and distributing warehouses throughout the country