

MICHIGAN FARMER

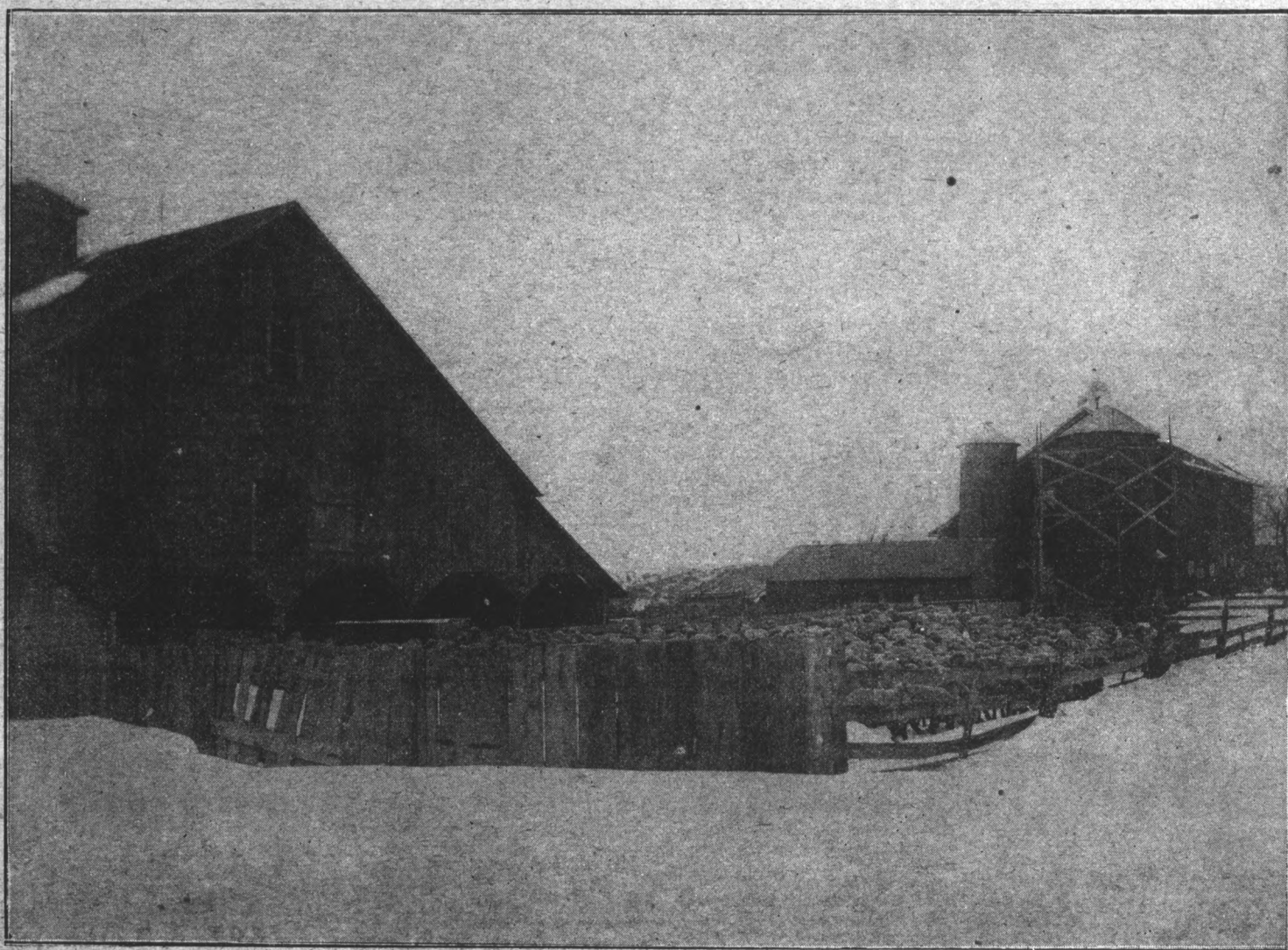
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ONE YEAR \$1.00
FIVE YEARS \$5.00



WHEN is farming at its best?

This is a bold question, and would, no doubt, have been answered by the average

farmer quite differently three years ago than now. Then envious eyes were cast upon the one-crop farms—farms where, at least, forty per cent of the income was derived from a single source. But hard lessons have been learned these past two years in the great out-door school of agriculture.

Farms, like the one inspected by one of our foremost economists, appear now to be leading the way. From this farm of 145 acres were received for sheep, lambs and wool, \$2,087; for swine, \$1,240; for beans, \$855; for apples, \$800, and for potatoes, \$105. The value of the farm was inventoried at \$12,000.

The owner of this remarkable farm fol-

Farming at Its Best

lowed a diversified type of agriculture. He insisted that there were certain definite advantages in his program which could not be had through specialization. First in importance, he declared, was the opportunity for the rotation of crops. There were unusual circumstances, he thought, where one may be justified in devoting himself to specialized lines, but this does not hold true in strictly farming sections. Many crops make possible a wise policy of soil feeding which keeps it strong for crop production.

"Then we do not take the risk," he continued, "which the specialist does. He, truly, may make a 'killing' occasionally, but more frequently must be content with heavy losses. The farmer with a diversity

of crops, on the other hand, invariably enjoys success in, at least, some department of his farming every year, regardless of

the temperament of the weather man."

This farmer further contended that both horse and man labor could be better distributed throughout the year. He and his men are not crowded to exhaustion one month and then drawing gravel or helping the section boss the following month. Live stock and many crops, properly adjusted to each other, call for all the time of the men and the teams and, yet, occasion the seeking of very little extra hiring.

Finally, a glance at the income column of the ledger kept by this man told plainly that returns were had at different seasons of the year. He sold his lambs in January, wool in August and individual sheep for breeding purposes. (Continued on page 41).

Chicago Daily Tribune

THE WORLD'S GREATEST NEWSPAPER

Announces

A BIG REDUCTION IN SUBSCRIPTION RATES

For the Benefit of the Farmer

THE CHICAGO TRIBUNE, realizing that its phenomenal success is due in a large measure to the fact that for seventy-five years it has numbered among its readers a large proportion of the residents of farms and small cities, announces for their benefit a big reduction in subscription rates effective January 15th, 1923.

*The reduction ranges from $\frac{1}{3}$ to $\frac{1}{2}$
below former rates*

In 1917, as a war measure, Congress passed a bill providing for four annual raises in Postal Rates for newspaper subscriptions. As The Tribune had, for many years before, sold its paper to out-of-town readers at less than cost, it felt compelled to add a portion of these postage increases to its subscription rates.

For the past three years The Chicago Tribune has been leading the fight to obtain a reduction in second-class postage rates, so that it could reduce to pre-war prices its subscription rates to residents of farms and small cities.

Although every one of the other ten taxes established by the war revenue act of 1917 has been reduced, Congress has not seen fit as yet to reduce the tax on second-class postage.

At the present Postal Rates it costs The Tribune from \$3.20 to \$6.79 a year for postage alone to send the paper to each subscriber in the States of Illinois, Indiana, Iowa, Michigan and Wisconsin. In many instances this is more than The Tribune's entire subscription price—without considering the cost of the product.

Many of our farmer friends have stated that it required from 10 to 12 bushels of corn to pay for a year's subscription to The Chicago Daily Tribune. The Tribune is anxious to remedy that fact.

**TO TAKE ADVANTAGE OF THIS
OFFER TEAR OUT COUPON and**

MAIL AT ONCE!



If you prefer to do so, you may turn subscription coupon below over to your postmaster, publisher, or newsdealer who will forward it to us.

Therefore, without waiting further for Congress to act, The Tribune announces a reduction in subscription rates ranging from $\frac{1}{3}$ to $\frac{1}{2}$. This cut in rates will cost The Tribune approximately \$200,000.00 each year, but The Tribune will pay the bill in the interest of its many country readers.

New subscriptions to The Chicago Daily Tribune, starting on and after January 15th, 1923, will be accepted at the following rates:

THE CHICAGO DAILY TRIBUNE

[By Mail, Six Days a Week]

These Rates Apply Only to Subscriptions in States of Illinois, Indiana, Iowa, Michigan and Wisconsin. [Cities, Towns and Rural Routes included.]

Period	Old Rate	New Rate
1 Month.....	\$1.00.....	\$.50
3 Months.....	2.50.....	1.25
6 Months.....	3.75.....	2.50
12 Months.....	7.50.....	5.00

The Chicago Daily Tribune today enjoys the largest circulation in its history and the largest morning circulation in America—averaging over 530,000 copies daily. It will readily be seen, therefore, that the reduction is not made primarily to secure more circulation.

If you wish to receive The Chicago Daily Tribune—with its many wonderful features—regularly, take advantage of these new, low rates now. Mail subscription coupon below. Note that \$2.50 will now bring you The Chicago Daily Tribune by mail for six months, or \$5.00 for a whole year.

For the benefit of its country readers The Tribune will continue its fight for fairer postage rates.

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- ☐ 1 MONTH [50c] ☐ 6 MONTHS [\$2.50]
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DEVOTED
TO
MICHIGAN
VOLUME CLX.

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
PUBLISHED WEEKLY. ESTABLISHED 1843.

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

QUALITY
RELIABILITY
SERVICE
NUMBER TWO

The Cherry Industry of Michigan

This State Now Leads and Has Possibilities of Much Greater Development

By Verne H. Church,

Agricultural Statistician

THE cherry industry in the region of the Great Lakes, as you well know, has had a phenomenal growth during the last two decades. The winter of 1898-1899 was unusually cold, the Great Lakes froze over, automatically eliminating the tempering influence of their waters, and caused widespread damage to the peach orchards of western New York, northern Ohio, and western Michigan. Not only were many orchards killed outright, but the trees remaining alive were so severely shocked that many died later either as a direct result of the freeze or having succumbed to disease. This severe blow caused many fruit growers to become discouraged with peaches, which had proven to be a rather uncertain and often unprofitable crop. It was only natural that they should seek a more hardy fruit and one that had a better reputation for regularity in bearing.

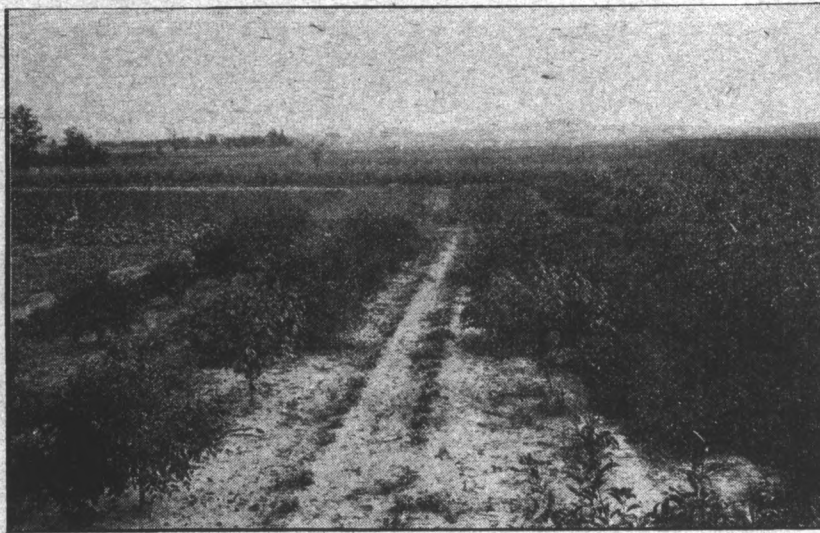
The record of existing commercial cherry orchards was favorable and that fruit offered possibilities for profitable development. The setting of trees increased slowly at first and then more rapidly. The spreading of the dread San Jose scale through the apple orchards, and further injury to the remaining peach orchards by later freezes gave additional impetus to the cherry industry.

From an examination of the United States census figures of 1920, we find that Michigan leads in the number of bearing trees of this fruit, although the total number is only slightly greater than in New York. In 1910, the number of bearing trees as shown in the federal census was 760,183 in Michigan; 673,989 in New York; 1,144,271 in Ohio, and 290,495 in Wisconsin. At that time each of these states, except Ohio, also had about one-half as many more trees that had not yet reached the bearing age. By 1920, the number of bearing trees in Michigan had increased forty-two per cent, making a total of 1,077,000 in round numbers; New York had increased fifty-two per cent, making a total of 1,027,000; Ohio had decreased twenty-six per cent, leaving a total of 805,838, and Wisconsin had increased fifty-one per cent, making a total of 437,480. The number of young trees below the bearing age in 1920 was considerably less than in 1910, but Michigan showed the greatest number, nearly equaling those of New York and Wisconsin combined, and being one-third as many as the bearing acreage in the state at that time. New York had only a little more than one-fourth as many, Ohio a little less than one-fourth as many, and Wisconsin one-fifth as many as in bearing. These figures indicate that the setting of trees has lessened considerably in recent years but that the rate of decrease is proportionately less in Michigan than elsewhere.

In Michigan, the commercial area extends over portions of a dozen western counties. The number of trees in these counties is, as in New York, about seventy per cent of the total for the state. The counties included in

this list are Allegan, Antrim, Benzie, Berrien, Charlevoix, Grand Traverse, Kent, Leelanau, Manistee, Mason, Oceana and Van Buren. According to the 1920 census Grand Traverse county led with 140,521 bearing trees; Benzie was second with 103,453; Oceana was third with 97,453, and Leelanau was fourth with 83,885 trees. The smallest number of trees for any county of the Michigan group was 14,422 in Charlevoix county. A survey made by the supervisors during the past summer shows the present number of bearing cherry

trees in the state to be 1,270,000, or slightly more than 200,000 increase in the last three years. As it is believed that no such change has taken place in New York, it is quite certain that we have considerably increased our lead over that state during that time. Every commercial county included in the Michigan list shows a greater number than in 1920 except Antrim. Grand Traverse has increased to 160,165, Benzie with the report for one township missing, to 108,095; Oceana to 122,480, and Leelanau to 94,958 bearing trees.



Here is Evidence of Michigan's Adaptability to a Wide Variety of Crops.

Gains in Business Measured

THE United States Department of Commerce which makes a constant study of business developments reviews the progress in 1922 and outlines the prospect for 1923 as follows:

"It is with a feeling of satisfaction that most industries can view the progress of the past year in spite of the many difficulties which have been experienced. At the close of 1922 there are no serious obstacles in sight which should hinder further advances during the early part of the new year. The unsettled conditions in foreign countries, particularly in Europe, are still depressing our trade, and, to a certain extent have, no doubt, kept the price of agricultural products below the level of other commodities. Within the past two months this latter condition has, in a measure, been relieved.

Production of manufactured commodities in 1922 was about fifty per cent greater than in 1921. Textile mills were about twenty per cent more active than in 1921, the iron and steel industry increased its output from sixty to seventy per cent over 1921; non-ferrous metals from fifty to ninety-five per cent; petroleum, fifteen per cent; coke, forty per cent; paper, twenty to thirty per cent; rubber, forty per cent; automobiles, fifty per cent; building construction, fifty per cent; lumber thirty-

five per cent; brick, fifty per cent; cement, fifteen per cent; leather, twenty per cent; sugar, forty-five per cent, and meats about five per cent. Agricultural receipts were in general higher than in 1921. The only declines of outstanding importance were seven per cent in bituminous coal and forty-seven per cent in anthracite.

The increase in production and the reduction in immigration improved the labor situation from the large surplus of labor at the end of 1921 to a point where shortages occur, while unemployment has almost been eliminated.

Transportation conditions changed from a huge surplus of idle freight cars to a considerable shortage, while car loadings were eleven per cent greater than in 1921.

Prices to the farmer increased about seventeen per cent during the year, wholesale prices advanced ten per cent and retail food prices declined five per cent. This condition gives the farmer a greater purchasing power and narrows the margin between wholesaler and retailer.

The volume of trade was considerably heavier than in 1921. Sales of mail order houses increased six per cent and chain stores show a gain of thirteen per cent. Debits and bank clearings show the same relation."

The year 1919 was a poor fruit season and the production for New York was 166,877 bushels; Wisconsin, 160,592 bushels; Ohio, 338,644 bushels, and Michigan, 360,952 bushels. The average yield per tree was .16 bushel in New York; .30 in Ohio; .37 in Wisconsin, and .34 in Michigan. In 1909, the yields were better in New York and Michigan but less in Ohio and Wisconsin, the average per tree being .43 bushel for New York; .18 for Ohio; .28 for Wisconsin, and .45 for Michigan. These two years do not afford sufficient evidence to indicate any superiority of one state over another with respect to yields.

For the region as a whole, it is probable that the Montmorency is the leading variety, although in many counties the honors are about equally divided with the Early Richmond. Only the sour varieties are grown in the Wisconsin commercial district, and the number of trees of Early Richmond and Montmorency is about equal. The sweet varieties are grown only to a small extent, and very few trees are being set. As the old orchards are gradually dying, the number of sweet cherry trees is steadily diminishing.

There are places in Michigan that seem to be more favorable to the growing of tender fruits than are found in other sections of the lake region. The prevailing winds are from the west, and the greatest protection is afforded in localities that lie along the eastern edge of large bodies of water. Such a region is western Michigan where, for nearly 300 miles north and south, there is an expanse of open water to the westward varying from fifty to nearly one hundred miles in width. The only times that Michigan has suffered severe losses of trees has been the few years that Lake Michigan froze entirely across as in 1899, 1913 and 1918. The value of water influences is emphasized by the fact that nineteen of the twenty-four commercial cherry counties mentioned in this paper border on the Great Lakes.

Michigan offers by far the best and safest territory for future expansion. The state of New York has many cities, including the metropolis of the world, which will naturally consume a large proportion of its production in the form of fresh fruits. Ohio's restricted area will only produce enough for home consumption in its numerous large industrial centers. Wisconsin's area cannot be expanded to any considerable extent.

As a natural consequence of this situation, the canning industry has made extensive development in our state and there is no reason why Michigan should not hold the center of the stage in this direction for the future. During the last twenty years, the period in which our cherry production has chiefly been developed, the industrial population of our state has doubled, the great cities just beyond our borders have grown rapidly, and the improved methods in handling, preparing and preserving our fruits have further sharpened our appetites for them.



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VOLUME CLX NUMBER TWO

DETROIT, JANUARY 13, 1923

CURRENT COMMENT

THE MICHIGAN FARMER SAYS:

This is a good time to cultivate the mental garden, for there are weeds among thoughts as well as among crops.

The use of system enables one to do things with the least wear and tear. Be a "system" man even to the extent of water and light systems.

Fixing up one side of our economic house does not necessarily mean that any injustice is being done the side that is already in first-class order.

Stop the Isle Royale Scheme

IN the last issue we commented on the desirability of Michigan Farmer readers keeping close tab on the work of the legislature and in close touch with their representatives in that body during the session just opened, to the end that state taxes may be kept within reasonable bounds. We take this opportunity to point to a specific example of this immediate need.

For some months numerous press items have directed public attention to Isle Royale. These were largely of a historical trend, directing attention to ancient mine workings on the island. For some weeks propaganda has been freely advanced for the purchase of this same island by the state for a state park. The idea has received liberal support from strong newspapers, and was endorsed by some of the most prominent members of the legislature before that body assembled for its initial session. Finally Governor Groesbeck recommended it in his message, thus making this proposition one for serious and immediate consideration.

Our readers will be interested in knowing more about Isle Royale and the influences back of this scheme to sell it to the state, at a price said to be around four million dollars, for use as a state park. The first item of knowledge can be simply acquired. The children's geography will give its location. The second item of information is one which the taxpayers of the state have every right to ask the backers of this scheme to elucidate.

Briefly, Isle Royale is a large island in Lake Superior, something over forty miles long and of some 250 square miles in area. It lies within a few miles of the Canadian shore, some fifty miles north from Keweenaw Point, the northernmost point of the state's main

land. Geographically, however, it is a part of Keweenaw county and is an integral part of the state of Michigan. It is traversed by ridges paralleling those of Keweenaw Point which are said to contain valuable copper deposits. It has been suggested in a recently published statement that the owners of the portion of the island containing these deposits may be behind the scheme for the purchase of the island for a state park, which might enable them to hold their mineral rights in reserve for future development without the payment of a considerable item of state and county taxes which are, or should be, levied on these holdings.

While the truth or falsity of this published suggestion should be established in the interest of the public welfare, it is not essential to a determination on the part of the people of the state as to whether they want to be taxed millions of dollars for the purchase of this distant and inaccessible island for a state park. We believe they will be able to decide this question on its merits and without prejudice, regardless of any sinister influences which may or may not be backing the plan. To this end let us review the plan strictly on its merits.

Whether this island is well adapted for its proposed use seems to be a subject of dispute among those who have explored it, with opinion widely divided. But as to its accessibility to the people of the state there can be but one opinion. It is farther from the state's center of population than the famous Thousand Islands of the St. Lawrence, and about equidistant with Coney Island, New York's noted jazz playground. Few Michigan people would be able to visit it even in summer without the aid of a private yacht, while in winter it would be inaccessible to all.

Conservation of natural beauty for the benefit of future generations is an admirable aim. But if the advocates of this scheme are to be taken seriously, the natural beauty of this island has been preserved to date. Nobody has yet stolen this beauty spot. Probably nobody will in the near future. The people of the state can well afford to delay the purchase of this island by their public servants on state account until at least a reasonable percentage of them have had time, opportunity and inclination to go and look it over, to see whether they want it or not. We would suggest that our readers advise their representatives at Lansing of their views on the matter.

A Legislative Service

NEVER in the history of the state have we been more interested in governmental activities at Lansing, than we are at this very moment. Agriculture in particular, has been burdened with tax loads which can no longer be borne with grace. Something must be done. Light is the greatest energizer, and renovator. To keep the light turned upon our state legislative body and upon individual legislators will, perhaps, in the long run, help more to relieve the citizens, than any other single act.

To this end the Michigan Farmer desires to make it easy for its readers to keep informed on the important legislative work that is being done, and especially as regards bills relating to agriculture and rural life. Our representative will be on the job in Lansing throughout the present session, and, through him, readers will be given a regular news service on activities at the capitol building.

Furthermore, this journal hopes to render a more personal service. Should any reader desire to learn the status of any bill in which he is interested, we shall be pleased to inform him, upon request made of the Editorial

Department. Then again, if one wishes to know how a certain legislator voted upon any particular measure, it will be our pleasure to give such information.

This service should aid citizens in not only keeping posted on what the legislators are doing, but it should also enable us as citizens to assist in the enactment of favorable laws and the defeat of undesirable ones through proper petitioning and correspondence with a member, or members, of our state law-making body.

Legislature Opens

By Our Special Correspondent

IT was Wednesday, the third day of the New Year, when the wise men were gathered together at the Legislative Halls. They came from the east and from the west and from the north and from the south, one hundred strong in the house of representatives and thirty-two in the senate.

Like all well managed concerns the first thing on the docket was the setting of the stage. The house had to have a new leader and numerous other appurtenances whatsoever, and the senate suitable drinking water and other items of major or minor importance.

The Speaker's Address.

Hon. George W. Welsh, the newly elected speaker of the house, is a brilliant young man from Kent county. He believes thoroughly in team work. He had his teams, half a hundred of them, already selected when he took the chair. He calls them committees and has instructed them to get into the harness and pull all they can before saddling their load onto the committee of the whole. He doesn't want any lagging so is not putting any top loads on the leaders to worry them and distract their attention. He puts on the finishing touches by urging somewhat thusly: "To thine own self be true and thou canst not then be false to any man."

The President's Address.

Up in the senate chamber the president and lieutenant-governor hit a few bulls'-eyes. He said (only he said it in nice language) that there were so many places to spend the people's money that we would have to watch the corners closely if the taxes be not increased; that every dollar of increased land taxes meant another dollar's worth of blues to the farmer; that all kinds of property must pay its share of taxes; that economy should be the watchword, but that our governmental agencies which have been built up for the protection of the people must be kept in working condition. He said that we should not forget to say "thank you" as well as "d—n you" to our public servants; that the presidential primary law should be strengthened or repealed; that the state wanted something to say about railroad rates; that while the trucks and the railroads compete for business, the railroads maintain their own right-of-way while the people maintain that for the trucks, some attention needed here. Guess he said something every time, eh?

The Governor's Message.

All the state officers, the supreme court, the senators, and the people, while the standing-room lasted, came into the house to hear the governor's message. He spoke deliberately and distinctly and told how the state treasury had been dug out of the mire of debt, and how the establishment of a complete system of accounting had made an accurate record of the state's business transactions immediately available. He then submitted Michigan's first current balance sheet, showing a current surplus of over ten million dollars.

The governor named three paramount fiscal issues confronting us and calling for careful consideration. First,

the retirement of the thirty million dollar bond issue voted as a soldiers' bonus. Secondly, the completion of our road program as expeditiously as possible. Thirdly, the urgent need of additional buildings at many of our state institutions.

He advocated a substantial decrease in the tax levy on real estate, a specific annual tax on government securities, and a small tax on intangibles. He recommended civil service rules and the eight-hour day for state employees, a re-drafting of the Corrupt Practices Act, drastic action against the use of firearms, the placing of private banks under state supervision, more extensive control over fire insurance rates, amendments to the Blue Sky Law to keep pace with existing conditions, a ferry service across the Straits of Mackinac, the acquirement of Isle Royale in Lake Superior to be converted into a state park, a state hospital for crippled children, a new state prison as soon as funds can be obtained, the completion of the woman's training school at Okemos, and the expunging of criminal features and sentences from our corrective institutions at Lansing and Adrian.

False Faces

THE other day they got me to go to a maskraid, what is a event where folks want to look like what they don't want to any other time. For inst., I went 'lookin' like what you call a lawyer, which is somebody what helps us get into trouble. I looked so much like old Dan Webster that one couple wanted me to sign their Declaration of Independence, what lawyers call divorce. I told them I believed in "United we stand, divided we fall." And anyhow their's bein' a fight amongst themselves made it a civil

war which me, bein' Mr. Webster, didn't know nothin' about.

At these maskraids you dance with folks what you wouldn't dance with other times. For inst., I danced with a

beautiful young lady what held me tight and wiggled her shoulders, which made Dan Webster feel pretty uncomfortable.

Now I like to shake a wicked foot, but when it comes to shakin' other parts o' the human anatomy I think it's more healthy to take the exercises alone. Anyhow, when they took the false faces off, I found this nice young lady was the young fellow what sold me my Oughto, so what you call my embarrassment was relieved.

But, you know, maskraids ain't the only place where folks wear false faces. There's some folks what put them on and off like their clothes. For inst., there's Penny Pulford what is the most accommodatin' skinflint there is. He kin rob you and make you feel good while he is doin' it. But after the event is over, you really know he is a robber in disguise.

The fellow what worked in Jones' gents' furnishin' store wore such a nice false face that he got Susie Miller, one of the sweetest girls in town, to go off and marry him. The other day they found Susie in a county hospital and brought her home a lookin' like a wilted flower.

We all wear false faces sometimes. Lots a times we give our hand when we would like to give our fist.

Any kind of pretenshun, or actin' like what you ain't, is wearin' a false face.

You know, I think it is a good thing for all of us to try to find out what's behind the faces we see, 'cause every day we are sayin', "Glad to meet you" to the devil and don't know it.

HY SYCKLE.



Tax Suggestions of Realtors Reviewed

Recommendations Made by the State Real Estate Association are Treated by L. A. Chase

I HAVE been permitted to read a manuscript statement on taxation in Michigan prepared by the Michigan Real Estate Association for presentation to the special state commission on inquiry into taxation, which will report to the state legislature.

Pointing out that heavy taxation of real estate discourages home and farm ownership and promotes tenancy both in town and country, the association gives its opinion that the present system of taxing real estate has broken down, that real estate is bearing more than its fair proportion of the cost of government, and that attempts to lessen the tax on real estate by certain forms of supplemental taxes have not been entirely successful. Methods of assessment permit glaring discrepancies, says the association, and the great bulk of personal property, particularly intangible property, pays little to the cost of government.

The association in its recommendations calls for economy and even retrenchment in governmental expenditures, state and local, and urges that the legislature refrain from extending the present functions of government, such as will increase governmental outlays.

The association advocates the adoption of the county as a unit for assessing property in place of the township and city, securing thereby greater uniformity and equity in assessments. This, it believes, would give greater dignity and importance to the office of assessor and remove assessors from the immediate influence of those assessed. The title of the county as-

essor would then be, "the county director of assessments." The county director of assessments would appoint necessary assistants for placing valuations on property and making assessments.

The association calls for the submission to the assessor of a sworn statement of the amount of both tangible and intangible personal property owned and subject to taxation under the general property tax, the tax rates thereon to be reduced. To provide the uniform valuation of real estate, the association recommends the compulsory use by assessors of land value maps which show the foot frontage or per acre valuation placed upon land for assessment purposes. They would indicate to the assessor and others the rates applying to all properties of a similar character. They would present a means of mathematical determina-

tion of values of lots of irregular dimensions.

The basic unit method of determining valuation of buildings is recommended. The tax roll and receipt should enter land, buildings, tangible personal, and intangible personal property separately. Tax rates should be entered for each class of property and for each governmental division.

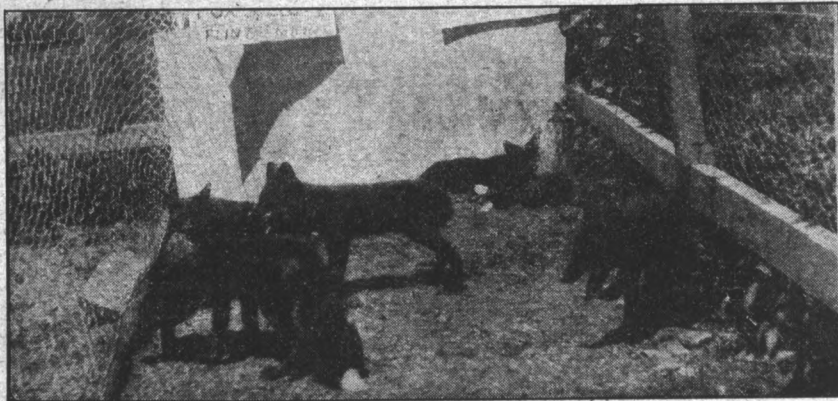
That all taxes payable in Michigan should be entered on a single tax statement with permission to pay taxes semi-annually, is recommended. Tax statements should be mailed to each taxpayer prior to the date of collection in order that each taxpayer may know without special inquiry what taxes are due from him.

As a feature of the new state budget system, the association recommends that all state appropriations be pre-

sented to the legislature in a single bill. Greater use of the labor of the inmates of state institutions in their own maintenance is advised, where this is practicable. Land, the association thinks, should pay a higher tax rate than buildings, and buildings a higher rate than live stock, machinery, implements, bank credits, etc. Maximum rates for each class of property ranging well below the general rate now in force are suggested.

The association winds up its report by suggesting additional sources of revenue: The \$10,000 maximum for the new state corporation tax should be removed or increased. The minimum should also be reduced. There should be a gasoline tax of one cent per gallon. Truck and bus lines should be taxed on a basis of gross earnings, carrying capacity or value of property used. Inheritance tax rates as affecting strangers and collateral relatives might be made progressive. Finally, all taxes should be collected by one collector in the county.

In preparing its report, the Michigan Real Estate Association first made inquiry regarding the taxation situation in other states and municipalities; and while it found unsatisfactory conditions everywhere, it also found widespread approval of the proposal to substitute one county assessor for township assessors, and also the classification of property with special rates adapted to each class. The Michigan Real Estate Association is composed of land owners and local real estate organizations in both peninsulas of the state.



These Little Black Fellows Are Worth More than Cows. A Good Silver Black Fox Skin Brings \$300 and Over.

Checking Over the Year's Business

How We Do the Job and What We Found

By P. P. Pope

ON every farm there is, or should be, a set time for beginning or ending, the farm year. This time is set apart for making the annual farm inventory, and for holding a sort of "post mortem" of the season's receipts and expenditures.

Some people start the farm year the first of April, or the first of March. We choose the first of January. There is more about the farm to be placed in the inventory at that time than at the later date, but we also find more time to devote to the job, and more time for a thorough examination of the records, and for a careful study of the results.

So interspersed with the big holiday dinners, the gorging of sweets and nuts, the games of "pit" or "put and take," the reading of the new Xmas books, and playing the children's games—interspersed with all these are many hours devoted to close inspection of the year's business. Here are some of the discoveries:

The inventory which usually comes first and which tells the rounded out story of profit, or loss, on the year's work remains about the same. The resources showing lower on horses, higher on cattle and hogs, lower on farming tools, higher on farm produce, and lower on miscellaneous items, stocks, bonds and notes, bills receivable and cash on hand, the total of all resources foot within \$100 of last year.

This part of the inventory is not so bad. We like to see the resources stack up well, but we also like to see the liabilities lowered. In spite of the fact that we have economized as never before, and practiced the last word in efficiency, and by so doing have suc-

ceeded in paying over \$1,600 on old obligations, nevertheless, the accruals of interest, taxes, bills payable, etc., have been sufficient to bring the final summary of the liabilities very close to last year's high mark.

Perhaps we should gather some satisfaction from the fact that we do not have to register another heavy loss as we have been accustomed to doing the two years past, but it sort of takes the joy out of life to work a forty thousand investment for all there is in it, and come out just where we started from.

We told last year how we kept account of our receipts by depositing all funds received in the bank, taking a duplicate deposit slip and writing thereon the source of the funds deposited. Going over these slips and putting down the amounts under sub-headings, we glean the following: The largest single item of receipts comes from the sale of farm produce. This is made up almost entirely of sales of wheat, beans and sugar beets. The yield of wheat was low, and the price very low, but by selling the bulk of the

crop for seed, it came very close to paying out. Had we guessed a little better on the trend of bean prices, and held until now, instead of hurrying them to market before the price dropped and taken \$4.50 per cwt., we would have realized a real profit on the crop. There is a prospect yet of a bonus on the beets that will leave a little profit.

A close second is the item that represents the sales of hogs. Here is the one place on the farm that we can see a real, sure enough, worth while profit. It has been one of the best years for the hog feeder that we have experienced in some time. Following this item comes receipts from sources other than from sales which we term independent receipts, there comes in order receipts for sales of cattle, horses and miscellaneous goods.

The expenditures which are taken from the record on the check stubs, and also listed under sub-headings, show that the expenditures are for the following items: Interest and taxes, old accounts, labor, feeds and fertilizers, live stock, seeds and miscellaneous items.

Such is the 1922 record of achievement, and shows a net profit consisting wholly of experience. It indicates clearly that agricultural conditions must improve, which I am inclined to believe is already on the road.

The government has given out figures showing that the consumption of milk increased fourteen per cent during 1921. That is the amount used per capita was forty-nine gallons instead of forty-three.



The Radio is Becoming a Big Factor in Distribution of News. Isolated People Can Now Pick the News Right Out of the Air.

LATE AGRICULTURAL NEWS.

FARMERS WILL SHIP BY TRUCK.

A NUMBER of successful and progressive farmers of Maple Grove township, Saginaw county, have decided to inaugurate direct shipment of live stock and poultry to Detroit by motor truck. Their first experiment will be in the shipment of a load of dressed hogs, veal and poultry on January 4, direct to the Detroit Produce Exchange. If the plan is found satisfactory farmers of the vicinity of Layton's Corners will form an association to supervise shipments on a large scale.—Mills.

ALFALFA BIG FACTOR IN NORTHERN MICHIGAN DEVELOPMENT.

THE wonder crop of the world is to play an important part in solving land settlement problems in northern Michigan areas, where thousands of acres of light soil extend from township to township and county to county.

No better proof of the statement can be found than the splendid work in this connection on the Ruckles farm near White Cloud. A few years ago the present owners bought a large tract of cut-over land and set out to show the public that it was worth investing good money in.

ST. LOUIS FACTORY MAKES 4,000 TONS OF SUGAR.

THE St. Louis sugar plant of the Holland-St. Louis Sugar Company, has just completed the campaign for 1922, having sliced about 35,000 tons of beets and made more than 4,000 tons of sugar, aside from 1,200 tons of dried pulp. The total amount paid to farmers for beets this year was about \$250,000. This, with more than \$40,000 paid for labor in factory, shows that the plant is one of the important factors in the industrial progress of this vicinity. About 13,000 pounds of beet seed were produced this year, which will be sold to the farmers contracting for next year's crop.—Mills.

HEMLOCK SHIPPERS ELATED BY REPORTS.

MORE than sixty farmers attended the annual meeting of the Hemlock Shipping Association on January 3 at the town hall, when it was decided to resume its monthly meetings during the winter. Frank Short, secretary of the association, reported a very successful year for the organization in 1922, and reviewed the progress of farmers' cooperative associations during the past year.

The general agricultural situation was discussed and the plans for a ship-by-truck project was explained. William Watson, president of the association, presided at the meeting and spoke briefly on the purposes of the newly organized Saginaw branch of the Michigan Milk Producers' Association. The election of officers of the Hemlock Association will take place at a meeting to be held soon.—Mills.

CAUSE OF SECRETARY FALL'S RESIGNATION.

FAILING in his efforts to secure the removal of the bureau of forestry from the department of agriculture to the interior department, Secretary of the Interior, Albert B. Fall, has resigned from the President's cabinet, and his resignation has been accepted to take effect March 4. This is regarded as a victory for Secretary of Agriculture Wallace, who has insisted that the forestry bureau remain in his department. In view of Secretary Fall's retire-

ment, the American Farm Bureau Federation says that many farmers are inquiring concerning the progress of Walter G. Brown's plan for reorganization of the departments of the government. They are wondering what the said Brown is doing to earn his salary. More than a year ago it was announced that Brown proposed to transfer the bureau of markets to the commerce department and the bureau of public roads to the new department of public works. None of these changes have been made, and it is not likely that they will be made.

FARMERS' DEPENDENCE ON EUROPE.

IN a letter addressed to the department of agriculture, J. R. Howard, retiring president of the American Farm Bureau Federation, says: "The welfare of the American farmer is much more closely related to the European situation than is usually considered. Europe purchases approximately ninety per cent of our agricultural surplus. She is therefore our principal customer. The purposes of the government as recently expressed in the public press to take an active hand in the settling of the European situation means tremendous things to American agriculture. What the farmer needs above all other things is price. There is every reason to believe the recent advances will be held and further gains in many commodities registered."

FAVORS BUREAU OF MARKETS.

THE Farm Bureau Federation has been on record as favoring retention of the bureau of markets, or agricultural economics as it is now known,

by the department of agriculture. The federation representative says the farmers do not intend to see marketing work divorced from farm production. "They are interested in the distribution of farm products through to the point where they are manufactured or sold to the consumer. And as cooperative marketing and manufacturing develop their interest will be continued through these processes. Farmers have no idea of divorcing the department of agriculture's interest in their products as soon as they leave the farm for the whole history of the development of the bureau of markets has shown the necessity for following the products through to the manufacturing stage, or in the case of fruits and vegetables to the consumer in order that the farmers may have the proper information for production and marketing of their goods.

POTATO PRODUCERS MEET.

EVERY potato grower who can, should attend the annual meeting of the Michigan Potato Producers' Association. This meeting is to be held at the Michigan Agricultural College, East Lansing, on February 1-2. The date comes during Farmers' Week at the college. A most interesting program has been prepared.

On Thursday, February 1, at 9:00 a. m., the session will be opened by Prof. J. F. Cox, of the Michigan Agricultural College, who will explain what the college is doing for Michigan potato producers. To give the listeners an idea of Michigan's place in the production of certified seed potatoes, Thomas Buell, of Elmira, president of the State Association, will show what our state has done along this line as compared

to activities elsewhere. H. B. Fullerton, of Long Island, New York, is coming to explain how healthy spuds are being secured on Long Island. Experimental work with potatoes in Michigan is to be presented by our potato specialist, J. W. Weston, of the M. A. C. The last discussion at this session will treat of potato diseases in this state by J. E. Kotila, of the botanical department of the college.

The following day at the same hour Professor Stuart, of the United States Department of Agriculture, explains how the quality of certified seed potatoes may be improved. Following this will be the report of H. C. Moore, secretary-treasurer of the Michigan Association on the work of the past year. The business meeting and election of officers will follow.

In connection with the business session there will be held a potato show. This show promises to attract wide attention. Prize exhibits at the recent Grand Rapids show will be exhibited on this occasion. All who have good potatoes are encouraged to participate in this competitive exhibit. Boys' and girls' club members have special class. For detailed information write H. C. Moore, secretary-treasurer, East Lansing, Michigan.

HIGH HONORS TO A BARRED ROCK.

AT the second Canadian egg-laying contest held in New Brunswick, a Barred Rock hen carried away the blue ribbon with a credit of 247 eggs. Two hundred birds were in the contest, covering a period of fifty-two weeks and making an average of 139.43 eggs, as compared with an average of 152.13 for the previous year. The best pen in the contest was of Barred Rocks, with a credit of 2,143 eggs for the fifty-two weeks, and was the only pen which showed an average of over 200 eggs per hen. Six of the birds in this pen laid over 200 eggs, and the lowest one had a record of 171. The 200 hens consumed 11,672 pounds of mixed grains, 7,790 pounds of mash, 8,930 pounds of skim-milk, 585 pounds of grit, 682 pounds of shell, a small quantity of charcoal, and a liberal amount of green feed during the year. The total cost of this feed was \$515.38 and the value of the eggs sold was \$902.27, leaving a balance of \$386.89 to cover the cost of labor and housing.

WILL HOLD GRAIN SHOW.

THE Saginaw County Grain Growers' Association has completed arrangements for the First Annual Grain Show to be held in Saginaw, on January 18-19-20.

Secretary Douglas Bow announces there will be complete classes for corn, wheat, oats, rye, barley, beans, and other small grains, seeds and potatoes. There will be about sixty classes for which there will be first, second and third premiums in each class.

All grain growers in Saginaw and adjoining counties are invited to compete at this show. There will be no entry charges and admittance will be free. Judging will be by competent judges from M. A. C.

Intending exhibitors who wish for further details may obtain desired information by writing Douglas Bow or the office of county club leader at the court house.

Saginaw Valley Grain Growers have recently won many honors at the National Show just concluded at Chicago. They won places on all entries sent and brought home more honors than any other county in Michigan. This will assure you the best show in the state this year.



Wednesday, January 3.

THE Turkish Nationalist troops are concentrated for an attack on Constantinople and other strategic points.—Verne Perry, a prisoner at Charles-town, W. Va., dug his way out of prison with two spoons and a knife.—According to figures based on returns from large hotels and cafes in Chicago, that city spent six million dollars celebrating New Years.

Thursday, January 4.

DEATHS in Cleveland from poisoned liquor showed a marked increase in 1922 over the previous year.—Two hundred camps for girl scouts are to be opened in various parts of the country next winter.—The world's largest perfect bell is located at Mandalay, Burma. It is eighteen feet in diameter and thirty-one feet high.

Friday, January 5.

TWO Chicago families celebrated New Years by the addition of triplets to the already large family.—National association of manufacturers ask a modification of the immigration law so that more aliens can be let in.—Faneuil Hall, the "Cradle of American Liberty" in Boston, will be restored to its original architectural condition.

Saturday, January 6.

GREAT BRITAIN warns France not to seize the Rhine district because of the non-payment of the German debt.—J. Ogden Armour resigns as president of Armour & Company, and also as president of the board of di-

rectors.—The production of the Ford automobile plants in 1922 was 1,352,478 cars and trucks.

Sunday, January 7.

THE United States will pay Norway \$12,000,000, according to the Hague award, for commanding Norwegian ships during the war.—The chief of police at Des Moines, Iowa, is taking pictures of all persons arrested for drunkenness. He believes a "see yourself when you are drunk" photo will help the temperance cause.—John A. Doelle, commissioner of the State Department of Agriculture, tendered his resignation to Governor Groesbeck to take effect January 31.

Monday, January 8.

THE total number of auto and truck licenses issued by the state of Michigan in 1922 was 578,580.—Because the steamer Hateras was without a prayer book, a funeral service at sea for its captain was conducted by wireless.—There are six hundred more prisoners in Jackson this year than last. Sixty-six per cent of the prisoners are Detroiters.

Tuesday, January 9.

THE National House of Representatives passes the agricultural appropriation bill carrying \$68,981,553 for agricultural purposes.—Race rioting in Florida caused the death of six.—Mrs. J. C. Ketcham, wife of John C. Ketcham, representative of the fourth Michigan congressional district, and former master of the state grange, dies at Washington.

The Handy Man's Corner

A PROP FOR DOORS.

WE find the following described prop for outside doors a great saver of time, and it is always on the job: Place a small strap hinge on the lower cleat of the door six or eight inches from the end and nine inches from the ground. A strip of wood bluntly sharpened and about eighteen inches long is fastened to the other end of the hinge. When left to itself this strip will drop to the ground and form a brace.

To keep the brace off the ground when not in use, a strong cord is fastened to a screw eye near the lower end of the brace, run through another screw eye eighteen inches above the

were erected years ago, little attention was paid to step saving; but with the increased cost of labor this becomes of vital importance, a realignment of stables may be a matter of economy.

If the bins for the storage of grain for feeding are not located in the stables, the granary and cribs should be located on the path to the stables, and a strong cart with high wheels, on which may be loaded several items of feed, has been found a great help in saving steps.—W. E. Whitney.

CONVENIENT ENGINE HOUSE.

THOSE using small gasoline engines out of doors will find the engine house of the type built by the writer, to be far handier than an old oil cloth, or a box, to cover the engine. Our house was built with a wall of sheet iron on the pulley side of the engine. We allowed the pulley to extend through a hole in the sheet iron. On the opposite side the door made up the wall. This door may be removed to allow room for cranking, or working on, the engine. The two ends may then be built of old lumber, and a roof placed over the top to shed water. We find this house easy to build, handy and convenient, and greatly prolongs the life of the engine as well as keeps it in more perfect running order.—T. J. Robertson.

METHOD OF CLEANING STABLES.

THE following is a short-cut which I found helpful in the stable. Formerly I used to gather up every little particle of dirt or manure with a shovel. I now take out what I can of horse manure with the barley fork and the cow manure with the manure fork. Then I use a scraper with a two-foot blade and six-foot handle to shove the material left in the horse stables, up against the two-inch planks on which the horses stand, and in the cow stable I shove this litter into the gutter. After the animals are then properly bedded, the stables look neat and altogether satisfactory. I find this saves about one-third of the time required by the old method.—Alex. Paulsen.

Do You Feed the Hogs?

IF you look after this important chore, you, no doubt, have worked out little short cuts or conveniences, either in feeding or caring for the hogs, that would be helpful, or suggestive, to your neighbors.

Just to give your neighbors a chance, will you not write me a letter telling briefly of any method of feeding, or caring for the hogs, or of any convenience about your hoggerly which is adaptable to other farms?

For each of the five best letters received I am going to send one of the handiest pair of combination pliers that ever went upon a farm. No fancy writing necessary, merely send a plain, letter by January 20. Address it to The Handy Man, Michigan Farmer, Detroit, Michigan.

hinge and then to the second cleat of the door. The string should be long enough to permit the brace to drop to the ground. A nail is then driven in the door far enough from the top screw so the string when hooked onto the nail will hold the brace up against the door.—Charles B. Ward.

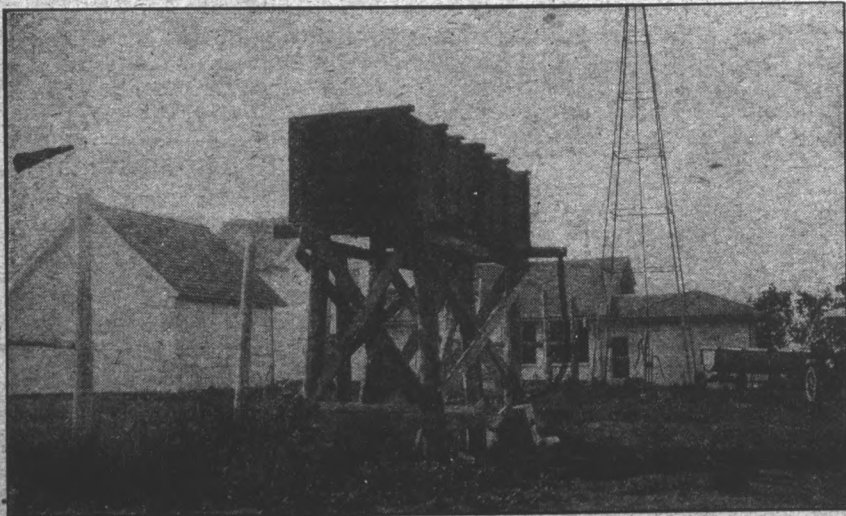
MAKES STABLES CONVENIENT.

MUCH time is wasted on many farms by retracing steps. To avoid this, the placing of doors, gates and passageways at convenient places in the barn so that one may pass directly from the finish of one chore to the beginning of another, is of the greatest help. In choring, the best short cut is a long head. No other business offers greater opportunity for concentration on the work in hand, than farming.

On many farms where the stables

WATER THE HORSES INSIDE.

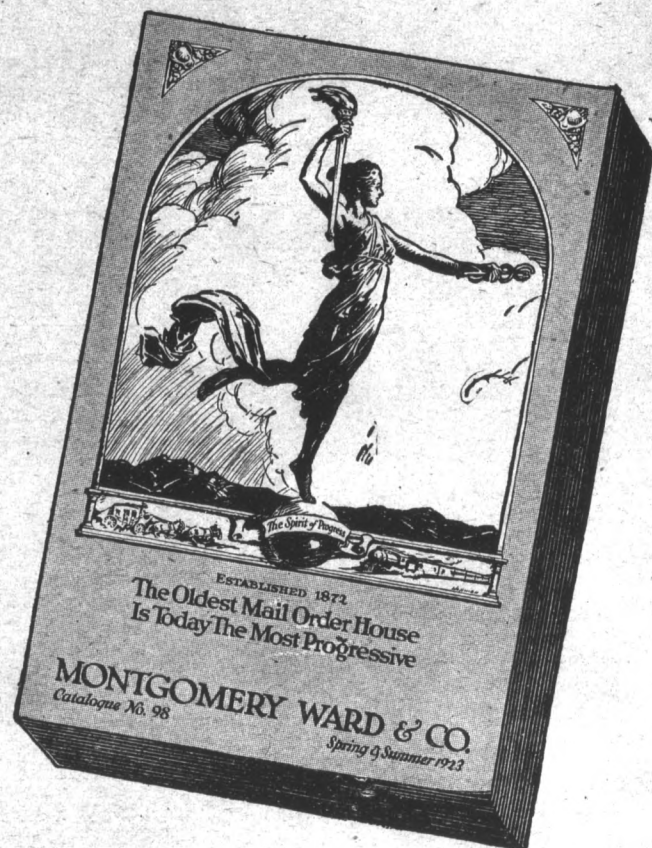
WE used to water the horses outside the barn. A great deal of time was required in leading a single horse out and waiting for it to drink the water needed. We now have a tank inside the stable. With this change we untie one of the horses and permit him to drink while we clean out the stall before he returns. This little change enables us to save a great deal of time both morning and evening in caring for the horses.—Edward Elson.



Spray-mixing Tank on the Farm of Tom Buell, President of the Michigan Potato Growers' Association.

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LINE TREES.

I understand that there is a law to compel a neighbor to cut timber along a line fence, where it hangs over the fence and does considerable damage. Please let me know what the law is, and what steps to take.—C. B.

It is believed there is no such law. The owner of land over which branches of trees hang from the other side, has the right after notice to the owner to remove them, and reasonable opportunity to do so, to trim off the overhanging branches himself, doing no more damage than is necessary to remove them.—Rood.

HUNTERS.

A is the owner of a farm and has signs up warning hunters to keep out. There is a ditch through this property, and hunters persist in hunting along the right-of-way of this ditch, claiming they have the right to do so, and that Mr. A can't keep them off. Who is right?—R. W.

The ditch is not a highway, and the hunters have no greater rights there than elsewhere.—Rood.

WILD CARROT WEED.

I would like some information regarding the Dancus Carota, or more commonly known as Wild Carrot. I have an eight-acre field of fine black loam, comparatively new soil, level and well drained, in the southwest corner of a section which is entirely covered with this weed. I now have it fall-plowed and I would like to know what crop would be the best for the destruction of this weed, a cultivated crop or oats? Or is there some other remedy which is good? Also, does this plant spread by seed or root?—C. L. S.

This weed will not survive any system of rotation of crops. It will not stand plowing. It is, however, a perfect nuisance in clover or any meadow or by the roadside.

It is propagated by seed and we usually get it from clover seed. Where one has it in a crop of clover seed, it would pay to go through the field with a spud and take every plant out. If you do not intend to harvest the clover seed, then plowing the field and planting to other crops will take care of them.

Of course, after this plant is once established on the roadside, so it will be if left, we are bound to be bothered every time we have a crop of clover seed because the seed will get scattered.

For ordinary crops, there is little cause for concern from this plant. But it should be exterminated because of the fact that it gets mixed with clover seed and nearly ruins it for sale.

BUTTERMILK FOR PIGS.

Please tell me if buttermilk is good to grow and fatten young pigs. I can get it for one and a half cents per gallon. Can I make any money buying it at that price and feeding it to fifty or more pigs?—I. M.

Buttermilk of good quality, at one and one-half cents per gallon, is an ideal food for pigs and very cheap. Used in connection with corn, rye or barley at the rate of three pounds of buttermilk to one pound of grain it will give better results than if fed in larger quantities. It may safely be assumed that buttermilk to which no water has been added is equal in value to skim-milk for pig feeding.—Pope.

MOULDY WHEAT FOR COWS.

I have some wheat that got heated. It has a blue mould in it. By mixing it with one part wheat, two parts oats, would it hurt my dairy cows?—I. E. L.

There is little or no danger that wheat spoiled by heating in the bin will be injurious to dairy cows or other

stock when given to them as food. Farmers have always utilized grain spoiled for human food by feeding it to live stock. Sometimes cows or horses will refuse to eat it until they are practically compelled to do so. Is is more often fed to hogs for the reason that hogs are not so particular in their tastes.

If this wheat would injure the cows, mixing it with oats would not overcome this, but the cows will be more apt to eat it because the oats will cover up or tend to at least the abnormal flavor of the wheat.

It will be advisable to feed carefully at first and in small amounts, until you are sure, but in all probability there will be no bad results.

WARRANTY.

I bought a cow a few days before she freshened. The cow was in very poor shape. But the man said she was a good milker, giving sixty pounds of milk per day. I brought her home, and from the first night she has not eaten well, and only gives ten to twelve quarts of milk per day. I telephoned him about her and he wrote saying he did not guarantee her and if he had wanted her he would not have sold her. What can I do?—E. Y.

The matters of fraud and warranty are questions of fact, as to which the burden would be on the plaintiff: but if made out the plaintiff could recover the purchase price if he notified the seller of his repudiation of the sale as soon as he learned that the cow did not comply with the representations, or he might keep the cow and sue for the damages from the breach of warranty.—Rood.

OPENING HIGHWAYS.

Is a three-rod road on a quarter-line a legal road to be laid out? Must the road be directly on the line or may it

be beside the line, and close to it? The town board wishes to buy a right-of-way on a quarter-line. A and B, who own the farms adjoining, decided to ask \$200 for right-of-way, selling two acres or one and one-half acres, whichever the road required. The board decided to lay out three-rod road. Without consulting B, A agreed to take \$150 and commissioner went to work without saying anything to B. B supposed when they began work on the road that the board had accepted the offer of \$200. Could the board have forced this road through? B not being willing to settle for \$150, they bought a three-rod road of A and put the road side of the quarter-line. Can B force them to settle for the trespassing and take the right of way and pay the \$200?—A. S.

Entry with consent of the owner is not trespass. The highway does not have to be on the quarter line. B cannot force to township to take and pay for his land.—Rood.

LIABILITY OF PUBLIC OFFICER.

Our township treasurer returned the ditch tax of 1918. My brother, serving in France in the United States army at that time, owned the farm. I was renting the place. I asked the treasurer if there was a ditch tax on the place and he said there wasn't. October 1, 1922, we got a letter claiming there was a ditch tax title against it. The treasurer had returned the ditch tax delinquent. There was personal property on the place. Is the township treasurer responsible for those taxes? Are soldiers exempt from taxes when in service?—W. K. C.

A public officer is liable civilly to any person injured by a misfeasance or non-feasance of a ministerial duty. To make him so liable it is necessary to show that the duty was plain, absolute, and imperative. It is believed to be the duty of the treasurer correctly to inform persons inquiring as to the amount of tax due from them. The treasurer is clearly not liable for the taxes. Nor is the soldier exempt.—Rood.

Better Potatoes Make Better Markets

This is the Opinion of a Dealer Who Has Been Impressed with the Way the Consuming Public Takes Hold of Good Stock

THE following letter from Mr. De Haven, of Andrews Brothers, of Detroit, who handle a large volume of potatoes, will be of special interest to potato growers and farmers generally:

It is with a great deal of pleasure and anticipation of a vast amount of good to be accomplished, that we endorse the campaign for the production of better quality potatoes throughout the eastern counties of Michigan.

In our mind there is no reason why certain localities in eastern Michigan cannot produce fully as good quality potatoes as other sections and be a credit to this branch of farming.

It is a well known fact that Michigan is the leader among all the states in quantity of potatoes produced for market but the growers in some parts of Michigan seem to carry the idea that quantity is the desired goal, whereas we, at this end where we come almost in direct contact with the ultimate consumer, know positively that appearance and cooking qualities are the first considerations. If this were not true, why would it be necessary to bring into Detroit, potatoes grown in Idaho, Minnesota, Wisconsin and northwestern Michigan? Unless the quality is improved in this nearby territory, Detroit will soon be drawing her entire requirements from other districts.

While no one can criticize the growers of other states for taking advantage of any market that offers them an outlet for their production, we believe we are justified in questioning the business judgment of the growers of Michigan adjacent to Detroit for allowing the farmers of these other states to put it over them when it would be the simplest thing in the world, by paying more attention to the selection of seed, selection of soil adapted to potatoes, preparation of soil for planting, fertilization, care of the growing crops and grading at digging time, to keep every other state out of this great Detroit market of over a million people.

If they would just consider the wonderful advantage they have over the other potato growing localities, not only of other states but of their own state and this quick money crop, we believe they could keep all others out and reap the benefit of the low carrying charge in these days of high freight rates when the difference in all instances is good profit.

We know whereof we speak in these matters, if you will pardon a personal reference, as we maintain a great many buying stations throughout Michigan and market hundreds of cars of potatoes annually in Detroit and other cities. We regret to say we have found

it necessary to close quite a number of these stations this and other years on account of the poor quality of the potatoes offered by the growers, which no amount of grading or sorting would make marketable in competition with potatoes from other sections. The stations closed were all in the eastern counties of Michigan.

We realize that this has been a disastrous year for the growers of potatoes, but to preclude the possibility of a repetition of this season's experience, we want to urge the growers to follow the advice of your publication and the agricultural college and Detroit will surprise them with her capacity to absorb their potatoes at prices that will show a handsome return.

All our growers in the territory close to Detroit need to do is look up the achievements of the growers in the Greenville, Cadillac and Traverse City districts where they have made history in quality as well as quantity production, to be convinced that success will be theirs also if they but listen to the agricultural college experts whose only aim in life is to help them.

Organizations such as ours for buying and handling the crops to the retailer are just as necessary to the farmer as his tools, and that is our reason for urging your paper to make this campaign just as strong as you are

able, because if we can secure sufficient potatoes nearby to supply the demand in Detroit for quality and quantity, we are going to operate on a smaller margin of profit as our risk is reduced in proportion to the distance we ship. No one of your readers can deny that the greater distance it is necessary to ship, the greater the risk of freezing and rotting, all of which is reflected in the price paid the grower.

Please understand that our motive is not entirely selfish in this matter, but we know that to be successful ourselves, we must take the other fellow and his problems into consideration and do all we can to help him—he in turn will do his part.

SHIPPED FIFTY-FIVE CARS OF BERRIES WITHOUT LOSS.

THE Lincoln Fruit Growers' Association, the first to build a pre-cooling plant in this state, handled fifty-five carloads of berries this year without one cent of loss attributed to pre-cooling, according to Henry Wattermann, manager of the association. The members are very well pleased with their first year's experiment with pre-cooling.—Mills.

The average Ohio hen lays 68 eggs a year, not enough to pay her board bill.

Notes of a Farmer

By L. B. Reber

THE melancholy days have come, the saddest of the year—time to pay taxes. Ye scribe collects taxes for this township and listens to the groans and moans as the farmers dig deep into their jeans. I listen with a very sympathetic ear, for my own taxes make me wonder where the money is coming from. Our taxes are twenty per cent higher than last year, last year they were twenty per cent higher than the year before, and so on ad infinitum, ad nauseum, and add bolshevikum, I fear, if a change isn't made. Taxation is rapidly reaching the point of confiscation.

I see that the state university only wants a little over seven million dollars this year. My, but they are modest. One item is a half million for a little piece of land they wish to buy. Suffering catfish! A half million will buy a couple of townships, or even half a county, in some parts of the state. It only costs about four thousand dollars to send a boy to the state-supported "U." for four years. No wonder they are over-crowded; what is a measly four thousand dollars to a farmer? Personally, I should feel rich if I had four thousand cents right now. Nuff of that sore subject.

I cannot brag about winter eggs this time. My pullets are all dolled up in new winter coats, red hats and have even put on a little red face paint but, like so many flappers, it is all show and little substance. I dish out feed until my arm aches, they gobble it down and then give me the glassy eye. I handed out some hard dollars for some "Lay or Bust" mash. A fancy self-feeder came with each bag of feed. My wife grabbed them. She took the cute, wire dingus from the top and used it as a table mat to set hot dishes on and grabbed the crocks for milk crocks. I made a self-feeder out of some old boards and hopefully filled it. A dozen roosters rushed up and gorged themselves. Those roosters show no signs of busting but they surely will lay before spring. I expect to make one lay this week. Right while he is layin', I shall gently lay an axe on his neck. If my Jersey Giants roosters keep on growing they will be able to eat from the roof of the corn crib. They are too young to crow yet but they tower above the other chickens as though they were on stilts.

We went into the winter with the dryest ground we have had for years. All the shallow wells are dry around here and some are compelled to haul water from the creeks. The swamps are dry and springs are either dry or only a trickle. Right now there is good sleighing on the roads but nary a sleigh to be seen. I did intend to start my grape trimming today but the wind is howling across the fields and drifting the snow. I hardly will need a step ladder to trim trees this year. I have carried water until my arms feel stretched a foot longer. Wading

through snow drifts an eighth of a mile with two pails of water three or four times a day is sure some arm stretcher.

Those pictures on the front page of our paper bring back many boyhood memories. Log barns chinked with



Having an acre, or so, of his land cleared by the demonstration specialists, brings a mile of smiles across the face of Roy Wiegandt, not yet twenty-one, but the owner of a promising farm near Johannesburg.

mud, ox teams trudging through the snow, minute puddin' and punkin butter, red-topped boots with copper toes, revival meetings' and warm maple sugar, Wow.

FARMING AT ITS BEST.

(Continued from first page.) at various dates throughout the year. Hogs went to market in February, June and November. The beans were sold in October, receipts for the apples were credited in November and for the potatoes in December.

The keeping of live stock and the growing of many crops also enables the manager to dispose of inferior grades through the live stock department. Not only this, but time which the specialized farmer would waste, this man spends in the production of animal products.

These facts are beginning to be generally understood. In a dozen states where farmers have depended upon the one, or two, crop system they are now being urged to turn to diversified schedules. No state can lay claim to a more diversified type of farming than Michigan. Thus again we see our state taking the lead in another great farm movement.



With good help unavailable, H. O. Ruggles, of Oakland county, has taken the first step in an experiment to learn what can be done at feeding calves from Holstein cows and an Angus bull. The old Holstein bull is shown at the right and the newly acquired Angus bull calf may be seen at left.



A "Horse-and-a-Half" in a Three Horse Job



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Every farmer should have a copy of this great book, "Hanging the Horse-Thieves". It tells how thousands of farmers have rid their horses of the sore shoulder menace. It will make many dollars for you. Your copy is ready.

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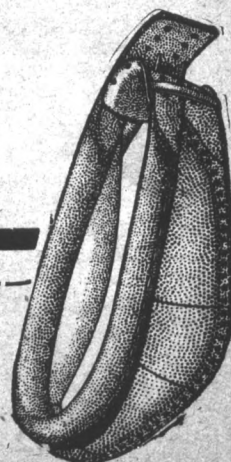
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Opinions & Comments

From
Michigan Farmer Readers

LESSENING THE TAX BURDEN.

THE editorial in a recent issue of The Michigan Farmer, advising that our members in the legislature be advised of the people's desire for relief from the present heavy tax burden, it is to be hoped will be heeded and good results will follow.

It would seem that a resolution, adopted by granges and farmers' clubs, at their next meeting and forwarded to their members in the legislature, would be the proper thing to do, worded something like the following: "Resolved, by the (name of grange or club), that we most earnestly request of our members in the legislature that the appropriations for our state institutions be kept at the very lowest amount of money consistent with their proper and absolute needs and that highway improvement and all other public utilities be held within proper limits to the end that the present heavy tax burden may not continue with its present crushing weight, many farmers being obliged to hire the money needed for the payment of their taxes."—J. T. Daniells.

DISAGREES WITH BROTHER REBER.

AMONG other things I read Brother Reber's article, "Apples and Other Things," and note what he says about Dwarf apple trees and Delicious apples. Now, my experience with Dwarfs and with the Delicious has been gratifying to the highest degree. Perhaps his soil is not the best for Dwarf trees. Mine are set in sandy loam.

The Delicious is also in quite sandy

soil. They have made very thrifty, vigorous growth. They were just little one-year whips when set five years ago, and now are eight or ten feet high and well proportioned. They are inclined to upright growth like the Transparent.

They gave me a few specimens a year ago last harvest, and this year favored me with better crops. One tree produced two bushels of the fruit. Too much cannot be said. Of all the apples I have ever known, there is none combining so many good qualities. That peculiar spicy, exquisite flavor of the tender, brittle pulp was present to a high degree, even at harvest time, and is still retained to the present date. The fruit was sampled by very many of my friends and neighbors, with the unanimous vote that the flavor was simply "Delicious."

As for appearance, they were large, many of the specimens excelling the highly ornamental cuts in the catalogs. I had some on exhibition at the local bank and nurserymen on seeing them procured specimens to help them with their sales.

The Dwarfs I set fifteen feet apart, tilled the ground, alternated sweet corn and potatoes. Now, the ground is seeded to alfalfa. I have Dwarf, Astrachan, Delicious, McIntosh Red, Northwestern Greening, Tompkins, County King, Baldwin and Winter Banana. A tree of this last variety bore to maturity forty-two apples the second year after setting. I am fully persuaded there is a place for Dwarf apple trees with those who have limited space, and those who are limited in time, like myself, who was past seventy-five at the time of setting the trees.—J. A. Symes, Kent County.

Farm Outlook Is Good

FARMERS see some encouragement in the agricultural outlook for 1923, due largely to the recent advances in prices of farm products, according to the United States Department of Agriculture. "It seems to be the general feeling on the farm," say the department investigators, that agriculture is climbing out of the abyss of the past few years and will soon plant its feet on solid ground. Farmers are beginning to talk about increased production of cotton, corn and live stock for the coming year. This is regarded as an unflinching index of optimism.

"Prices of all farm products except potatoes and eggs have made material net advances during the year, compared with prices a year ago, and in most cases are higher than in 1913. In live stock circles, however, some concern is felt over the drop in beef cattle and hog prices from October to November this year. In November farm prices of ten leading crops advanced eight points as shown by the department of agriculture's index figures. During the same period farm prices of live stock declined five points. Since these compilations, crop prices have made some further advances, with live stock prices about unchanged.

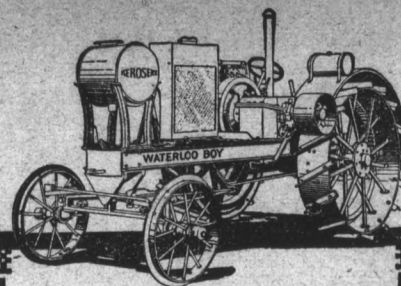
"Crop and live stock production in 1922 was only about seven per cent more than in 1921, and is close to the average of the preceding ten years, despite the general belief that there has been large surplus production this year. Production of potatoes and apples has been unusually heavy, but of the staple products such as the cereal crops, cotton and tobacco, is not excessively larger. The corn crop is actually smaller by nearly 200,000,000

bushel than shown by previous records.

"Exports of wheat and flour from the United States during the first eleven months of 1922 totaled 215,614,000 bushels, compared with 340,647,000 bushels during the same period in 1921. Europe's reduced purchasing power is strikingly shown in decreased exports. Had European countries been able to purchase larger quantities of American agricultural products, prices undoubtedly would have been driven to much higher levels than they actually were.

"Receipts of hogs at markets have borne out the prospective increase in hog production indicated in the department's pig survey last spring. About twenty-seven per cent more cattle and twenty per cent more sheep and lambs are on feed this year, compared with last year. Farmers view the situation with alarm because of a possible drop in cattle prices on account of abundant supplies, which may mean that farmers will get lower prices for grain in the form of live stock than would have been secured in the grain as grain. For the present winter season of 1922-1923 feeder cattle went into the corn belt feed lots at \$5.50@7 per 100 pounds as thin cattle. Some of these cattle have already started back to killers and are showing satisfactory prices for the grain and roughage fed to them. Farmers are skeptical over the continuation of this condition.

"Large quantities of potatoes are still in the hands of growers, shipments of main crop potatoes being nearly fifteen per cent less than last year, despite the record-breaking crop. This has been due to heavy local supplies, low prices, car shortage, and unfavorable weather."



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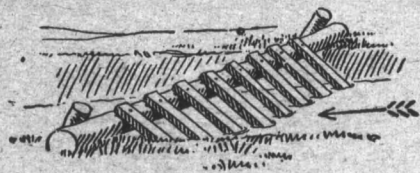
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AN EFFICIENT FLOOD GAP.

A GREAT deal of needless work and worry is practiced by farmers all over the country where streams of water run through their farms. After every heavy rain, they must make their rounds to see what condition the flood gates are in; and almost invariably they find some repairs needed. They usually count themselves lucky if some of the gates are not entirely gone. All this is unnecessary since a reliable flood gap can be made at less expense than the ordinary flood gate, and will be "right there with the goods" when the flood is over.

It is so simple in construction that a glance at the illustration almost explains the idea. Note the arrow is pointing the same direction that the



stream flows. A substantial pole is placed across the stream from bank to bank. Unless the pole is held at each end with a fence post, a short post or stake should be driven at each end and spiked to the pole. Short poles or two-by-fours are slanted and driven into the ground a few inches and spiked to large pole. These should be placed about ten inches apart.

When the water is low it simply flows through between the bars. Naturally some drift will collect on these slanting bars, but a high water will take this drift right "over the top," leaving the gap free from rubbish. I am not writing this from hearsay or imagination. My father has made a number of these flood gaps and says that nothing could induce him to go back to the swinging gate.—V. A. G.

FINDS CAUSE OF MOSAIC DISEASE.

A MICHIGAN man, Dr. Ray Nelson, of the University of Michigan, has found after a long investigation that a one-cell animal, known to scientists as of the protozoan type, causes the mosaic disease, which destroys nearly thirty per cent of the country's potato crop as well as raising havoc in tomatoes, lettuce, clover, beans and tobacco. This little animal is about two thousandths of an inch long. With the discovery of the cause of this disease, it is hoped that a means for its control will soon develop.

BEAN CROP AT LOW ESTIMATE.

MICHIGAN'S bean crop is way below the early estimates for the crop. These early figures placed the Michigan crop at 5,000,000 bushels, but the latest report indicates a shrinkage to 3,718,000 bushels. The United States crop is also lower than expected, being below the four-year average consumption.

The shrinkage in Michigan's crop is supposed to be due to the abandoned acreage which have been damaged by rain, and to low yields in some parts of the state. This falling off in production will undoubtedly have a bullish influence on the price. In fact, some jobbers state that it has been effective already. Because of the low production the December slump did not materialize, but instead the prices increased. It is estimated that about half of the Michigan crop is still in the hands of the growers.

Fresh air and sunshine are so plentiful that we should arrange to take every possible advantage of the disease insurance and vitalizing influence that they afford in the dairy barn, the chicken coop, the hog house and the home itself.

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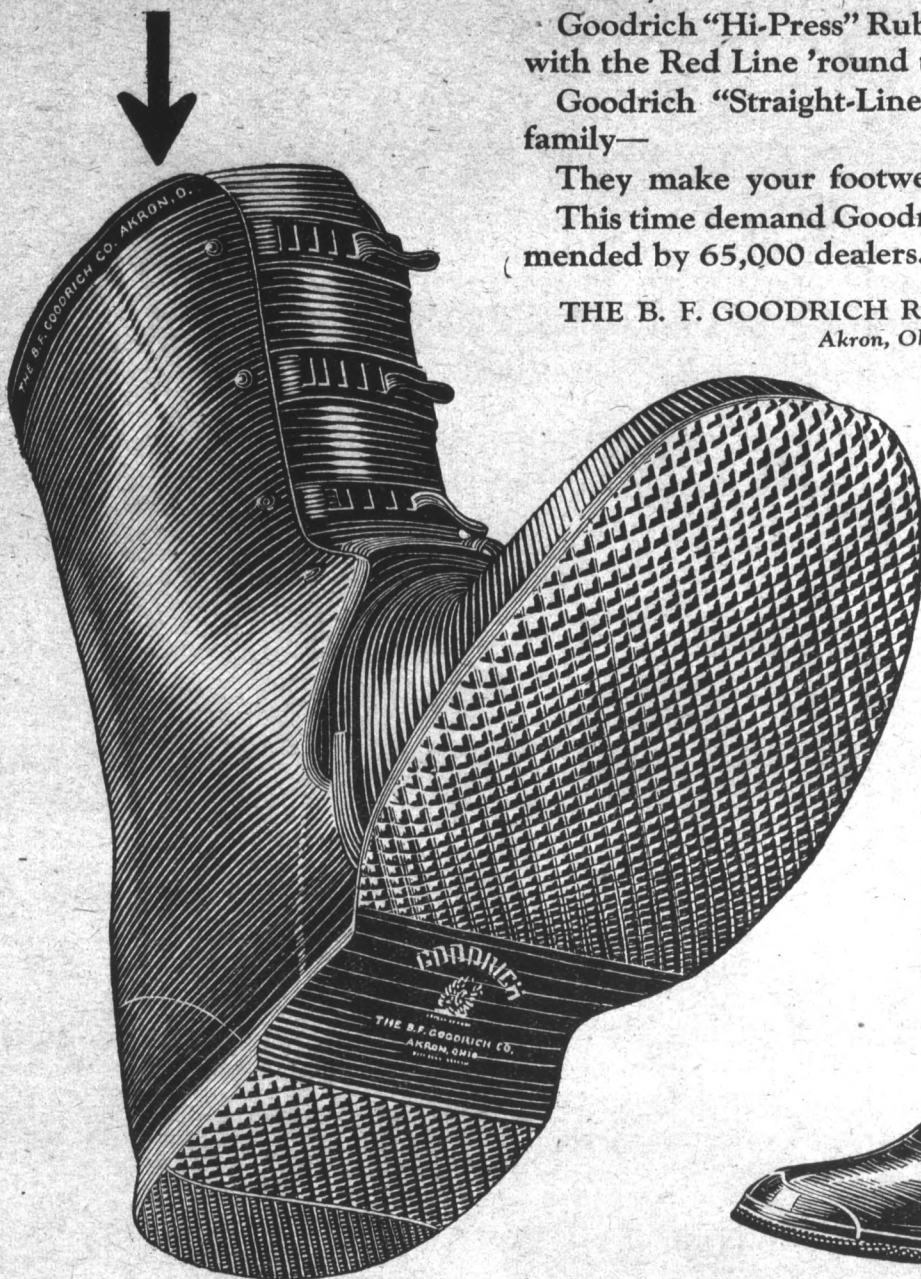
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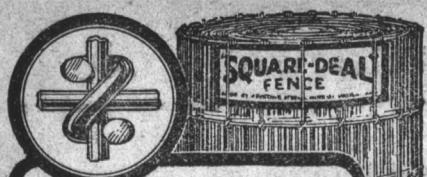
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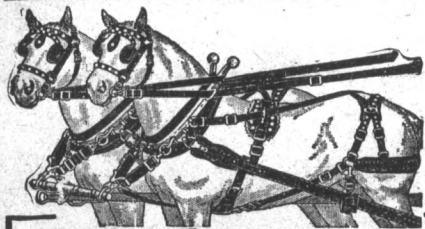
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News From Cloverland

By L. A. Chase

WILL HELP FARMERS BUY LIVE STOCK.

THREE banks at Sault Ste. Marie are said to have formed a fund to assist in the purchase of live stock in Chippewa county. The interest of these banks in this new departure is said to be connected with the recent rural credits conference held at Marquette in November.

WOMEN FIGHT FOR CLEAN DAIRY HERDS.

A WOMEN'S club of Calumet was recently represented before the Houghton County Board of Supervisors in connection with its campaign to rid the county of bovine tuberculosis. Considerable data bearing on the situation in Houghton county was presented. The county physician stated to the board that the dairy herd at the County Infirmary was the only herd which had been tested and re-tested for tuberculosis in the county. On the other hand, he reported that the cleanliness of the milk produced in the county had greatly improved in recent years. This, however, did not prevent tuberculosis and he admitted that little headway was being made in the prevention of this disease in the county, and milk infection was held in part responsible for this situation.

FARM SCHOOL ACTIVE.

FIFTY-NINE students are enrolled in the second term of the Menominee County Agricultural School. A motor-sled has been constructed by the students and is said to have given good service on the state road. Boys in the radio course are constructing their own receiving sets at low cost. A radio short course for farm boys will start January 8. The federal men are constructing bee-hives in preparation for the summer course in bee-keeping. A general review of the school activities indicates that they largely have to do with practical farm problems and farm economy.

NUMBER OF FARMS GREATLY INCREASED.

THE county agent of Schoolcraft county has prepared a study of the present farm situation in that county based on a comparison of the 1920 United States census returns and the statistics gathered, this year, by the supervisors. An increase in the number of farms in the county of 24.6 per cent between the two dates is indicated. The increase of farm acreage is 8.8 per cent. Still only six per cent of Schoolcraft county is in farms. The size of farms has decreased from 122.7 acres to 98.14 acres per farm.

CLOVERLAND FARMERS TO HAVE A REAL TREAT.

ONE of the most important meetings in relation to agriculture, reforestation and conservation ever held in northern Michigan, will take place at Menominee on January 18-19. This is the third gathering of the kind held gress, which includes Minnesota, Wisconsin and Michigan in its scope. This is the third gathering of the kind held in the northern Great Lakes region, that two years ago taking place at St. Paul, Minnesota, and that a year ago being held at Milwaukee, Wisconsin.

A considerable number of distinguished speakers have already signified their intention of being present. In the session on the forenoon of January

18, the general theme will be, "A National Reclamation Policy," and P. S. Lovejoy, of Ann Arbor, will talk on "Settlement and Forest."

In the afternoon the topic will be national land settlement policies. At this session Mr. Oscar Smith, commissioner of immigration of the state of Minnesota, will describe Minnesota's land settlement plan, while Mr. Ben Faast, of Eau Claire, Wisconsin, will present Wisconsin's colonization plan. The Michigan plan to be presented to the 1923 session of the legislature will also be described at this session. Mr. Elmer Grimmer, president of the Wisconsin Real Estate Board, will discuss "State Supervision of Land Sales."

The general topic for the evening will be, "Conservation Assets of Lake States." Under this head, Michigan will be represented by Albert Stoll, Jr., of the Michigan Conservation Commission; Wisconsin by W. E. Barber, of the Wisconsin Department of Conservation, and Minnesota by W. T. Cox, of St. Paul.

At the Friday morning's session, "County Organization and Farm Development" will be handled by Mr. M. J. Thompson, of Duluth. L. F. Livingston, of Marquette, will describe land-clearing progress in Michigan, while John M. Swinehart, of Madison, Wisconsin, will speak on "Wholesale Clearing in the Utilization of Cut-over Lands." Wallace Ashby, of Meadowlands, Minn., will speak on "Power in Land-clearing." E. G. Quamme, president of the Federal Land Bank at St. Paul, will state how the Federal Land Bank can help the settler in the cut-over region.

In the afternoon, Mr. C. N. Householder, associate director of immigration of Wisconsin, will speak on "State Land Mortgage Associations as a Means of Financing the Settler." "Pending National Rural Credits Legislation" will be considered by Mr. Oscar E. Bradfute, president of the American Farm Bureau Federation. "The Dairy Cow the Settler's Friend," will be discussed by Professor Reid, of M. A. C. The Upper Peninsula representative of the Michigan Farmer will attend these meetings and report them for this paper.

TO BOOST DAIRYING.

A SERIES of meetings that will feature the dairy cow as an asset to farmers of northern Michigan will take place on February 14-15-16 at Ironwood, Escanaba and Sault Ste. Marie in succession. The extension department of the Michigan Agricultural College and the Upper Peninsula Development Bureau are cooperating in staging these meetings.

The speakers for these meetings will include Prof. O. E. Reed, of the Michigan Agricultural College; A. G. Ketunen, of Marquette; L. F. Livingston, of Marquette; C. E. Gunderson, of Ironwood; B. P. Pattison, of Escanaba, and H. C. Lawton—all men qualified to speak on the dairy cow and the farmer. Dairying as a business, dairying in a new section, calf clubs as a means to an end, land-clearing, and the future of the industry will be topics at these meetings.



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Fertilizers in Orchards Pay

Pennsylvania Tests Shows Value of Orchard Fertilization

By Roy E. Marshall

Professor of Horticulture, M. A. C.

THE Pennsylvania orchard fertilizer experiments, as reported in Bulletin 153 of that experiment station, show nitrogen to be the most important element in increasing the yields of apple orchards. These experiments were conducted for a period of ten years in six bearing apple orchards located on soils of varying degrees of fertility, as shown by chemical in several parts of the state. Furthermore, four of the orchards received the usual orchard tillage and two were sod orchards.

In one of the sod orchards, that was ten years old at the time the experiments were started, the three plots which received nitrogen in combination with phosphorus, potash, or both phosphorus and potash, gave an average annual yield of 473 bushels per acre, while the yield for the non-fertilized plots was 228 bushels. Since phosphorus gave a yield of only twenty-three per cent greater than the non-fertilized plot, and potash failed to increase the yield, it is evident that most of the 107 per cent increase in the yield of the plots receiving nitrogen over that of the unfertilized plots was due to the nitrogen. Dr. J. P. Stewart, under whose direction the work was done, says that nitrogen was directly responsible for an average annual gain in yield of ninety-four per cent, or 214 bushels per acre.

In another similar experiment nitrogen gave an average annual gain in yield of 148 per cent, or 171 bushels per acre, while phosphorus gave an increase of twenty-seven per cent and potash twenty-three per cent over the unfertilized plots. Furthermore, the plots receiving nitrogen produced fifty-four per cent more twig growth than the unfertilized ones.

In the other four orchards, which were under cultivation, nitrogen gave average annual increased yields of thirty-three, fifty-three, six and twenty-one bushels per acre respectively over the non-fertilized plots. The interesting thing about these tests is that the poorest soil from the standpoint of chemical analysis gave the poorest response to the fertilizer treatment while the richest soil gave a twenty-seven per cent increase due to the use of nitrogenous fertilizers, showing that the orchardist must rely upon the performance of the orchard in the way of yields, rather than upon chemical analysis in determining whether or not the orchard is in need of fertilizers.

In summarizing the results of the six experiments, Dr. Stewart states that nitrogen gave an increased yield of fifty per cent, phosphorus fourteen per cent, and potassium nine per cent over and above the yields of check or unfertilized plots. Nitrogen in combination with other elements produced fruit with sixteen per cent less color, while the fruit from the phosphorus plots showed three per cent less than that from the potash plots two per cent more color. "With many varieties, the reduction in color can be fully overcome by deferring the picking of the fertilized fruit until approximately the same degree of ripeness is reached as that attained on the checks at the usual picking season," says Dr. Stewart. The fruit from the fertilized plots was slightly larger than that from the unfertilized ones. The average of the six experiments

over the ten-year period shows nitrogen to have produced nineteen per cent more twig growth, and potash two per cent more, while phosphorus gave two per cent less than the check plots.

The results of these experiments show nitrogen to be by far the most essential single element in increasing apple orchard yields and that phosphorus has produced profitable gains while potash is of doubtful value in the average orchard. Furthermore, the combination of nitrogen and phosphorus was usually much better than nitrogen alone and the two elements can profitably be combined in orchard practice.

CAREFUL PRUNING PAYS.

FRUIT growers throughout the state are just now giving much attention to pruning, and questions frequently arise regarding the best procedure under certain conditions.

In the opinion of horticultural experts, many fruit growers often prune too much, without regard to the real need of the tree. It is pointed out that with trees which were well selected when the orchard was set out, it is necessary to remove only occasional branches which start out in the wrong place and to remove dead, injured, and crossed limbs.

If the trees are bearing small fruits, if the tree tops contain many dead branches, or if the seasonal growth is short and scant, judicious pruning is recommended as a means of rejuvenation. This usually consists in cutting back many branches and in entirely removing others. The following general rules are applicable under such conditions: Prune weak-growing varieties heavily; strong-growing kinds lightly. Varieties which branch freely need little pruning; those with many unbranched limbs, much pruning. Prune trees in rich, deep soils lightly; in poor, shallow soils, heavily.

The cutting back of all the branches of a tree is practiced regularly only with peaches and some plums, according to the station experts. This is attributed to the fact that with these fruits, the wood of the past season, and therefore the crop, is borne progressively further away from the trunk so that it is necessary to head-in these fruits by cutting back the branches in order to keep the bearing wood near the trunk. Apples, pears, cherries and most plums are borne on spurs from wood two or more years old and with these heading-in is not needed.

The best time to prune is in the winter, when the wood is dormant, that is, at any time after the leaves drop in the fall until the buds start in spring.

HONEY IMPROVES SOFT DRINKS.

THE Bureau of Chemistry of the United States Agricultural Department, in its experimentation on soft drinks, has found that the quality of such drinks as root beer, sarsaparilla and chocolate can be greatly improved by replacing with honey one-half of the sugar used in their manufacture. This improvement in quality causes no decrease in the food value of the drink and at the very slightest increase in cost of three-tenths of one per cent.

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Rural Health

By Dr. C. H. Lerrigo

TAKING OUT THE TONSILS.

THE job of getting the consent of Mrs. Harper to the removal of Mary's tonsils was much more of a task than the operation itself.

"I don't believe in it," Mrs. Harper declared. "If there had not been a use for the tonsils they never would have been put there. How will she do without 'em?"

Mrs. Harper was quite right in her protect. There is a use for the tonsils. Conservative physicians do not remove the tonsils of young children unless it is clearly evident that they are in such condition as to seriously impair the child's health and development. After puberty the tonsil has no function and in normal health it undergoes atrophy; but if it is diseased it lingers along, usually causing much sore throat and more serious troubles, and the only sensible thing to do with it is to remove it.

Even young children are very often proper subjects for the removal of the tonsils. When these glands become enlarged in such a way as to interfere with proper breathing or when they become diseased, even though not enlarged, they must be taken out. Their presence in the body is then very dangerous to health. It is not merely that the throat and neighboring glands are affected but the poison spreads through the entire body. Often it causes the swelling and pain in the joints commonly known as rheumatism. It affects the heart severely and is one of the most common causes of the heart disease that appears later in life and causes so large a proportion of all deaths. Once the tonsil has become infected and the infection has become chronic the only wise thing is to have a surgical operation.

Tonsil surgery is not an easy job, one that can be done by any and every doctor. There is more to it than merely chopping out the tonsil. It is highly important that every scrap of diseased tissue shall be removed in such a way that the whole focus of infection is cleared and that tonsillar tissue will not grow in again. This is not a simple matter and even with the best of skill there may be left some fragments of lymphoid tissue that will afterwards increase until it leads one to think that the tonsil was never removed, but this is much less likely at the hands of an expert. Have diseased tonsils removed by all means, but be sure to get the very best skill available for the operation.

APPLES IN DIET.

Is there such a thing as apples, either fresh or cooked, being harmful to any one, especially one troubled with constipation.—I. J. H.

I consider the apple the most beneficial of all domestic fruits. It is especially helpful as a spur to the bowels and is a great tonic and appetizer. I have no personal knowledge of anyone being unable to eat apples so long as a normal digestion is enjoyed, yet I must admit the possibility that some may have an idiosyncrasy against them, just as is the case with strawberries and other fruit.

HAS DIZZY SPELLS.

I have dizzy spells; am not able to see for several minutes. I also faint at times. I have two babies aged five and sixteen months. The spells have come since my last baby.—Mrs. J. H. D.

Several different things might account for such spells. The most likely

is that your nutrition is below par on account of the burden of the two babies. This would be helped by taking extra nourishment, such as milk, either fresh or malted, drinking cocoa, etc. You should also be particular to get enough sleep. If your rest is disturbed at night be sure that you make up for it by getting a long nap in the day. Another very likely thing is that your eyes are at fault and need correction by spectacles.

COLD SORES ON LIPS.

What is the cause of sores, commonly called "cold sores," on the lips?—F. J. H.

The skin has much in common with the internal mucous membranes. When a "cold" occurs and inflames the mucous lining of mouth and throat by catarrhal infection it is a very logical thing that this should spread to the skin in close proximity. Such sores, known to doctors as "herpes labialis" are really a catarrh of the skin. They must be kept clean and allowed to heal without interruption by "picking."

THE HEALTH DOCTOR.

If the health doctor is sent out is he not supposed to give medicine and look after the sick and see they have provisions and care and tell what the trouble is?—Mrs. J. C.

This depends upon the contract that he has with the county authorities. Sometimes a county only engages a health officer to look after quarantine and sanitary work. In such a case he would be under no obligation to go further unless prompted by humanitarian impulses. You should get your county officials to employ a doctor to give his whole time to looking after the health of the community. Then you will get better services. Few doctors who do this work as a part time job, give any satisfaction.

HOW TO TREAT CHILBLAINS.

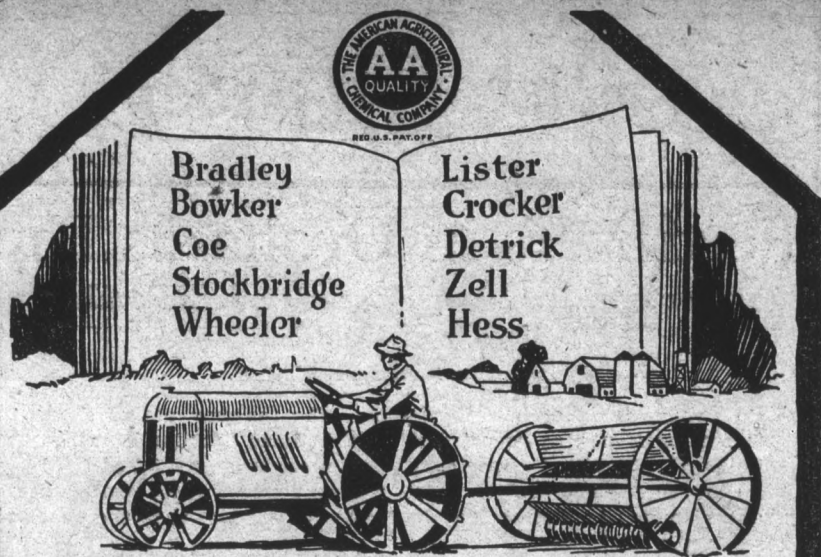
What is a good thing to do for chilblains?—G. R.

A chilblain is a spot of defective tissue in which the circulation has been destroyed by frostbite. Around it is usually a large area of poor tissue in which the circulation is very feeble. This is always aggravated by pinching the foot into a tight shoe or getting them cold or wet. Woolen stockings should be worn and nothing should be allowed tight enough to impede the circulation. Do not warm the feet by artificial heat but bring the blood back by rubbing or bathing in cool water. Lotions containing camphor, tar or menthol may relieve the itching. It is important to eat plenty of nourishing food and build up the system in every possible way so that tissue building may progress readily. You will not cure chilblain simply by "putting something on." You must build up the de-vitalized tissue.

MILK FOR AN ADULT.

Is there any good reason why the drinking of milk is harmful for an adult? In his eighteen rules, "How to live 100 years," by Sir James Sawyer, rule nine is "Drink no milk."—L. P. F.

Milk is a food and one of the best foods that can be used for adult and child alike, though not so indispensable to the adult person. It should be considered as a food rather than a beverage and there are few hearty adult persons who will not find it to advantage to use from a pint to a quart daily.



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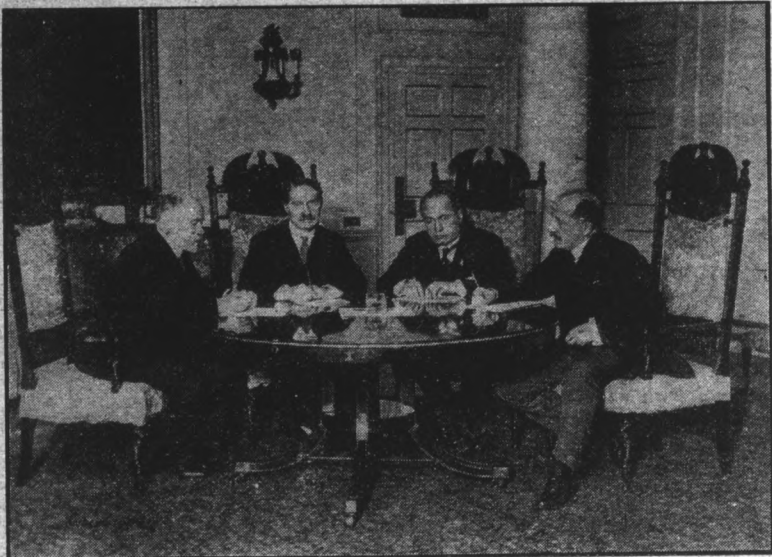
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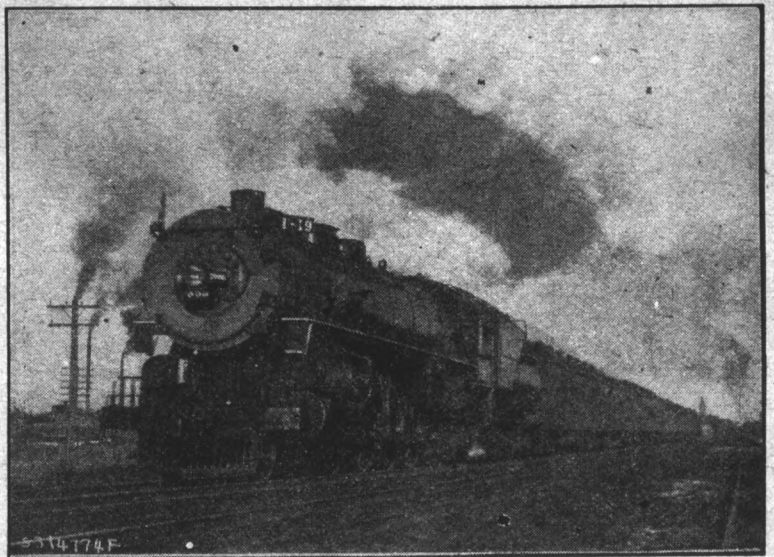
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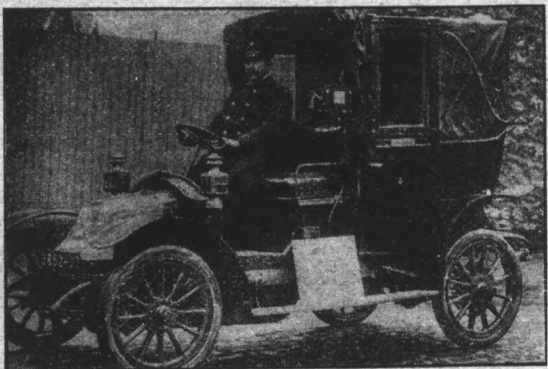
WORLD EVENTS IN PICTURES



Four of a kind—the Premiers of France, Italy, England and Belgium in conference at Downing Street, London, on German reparations and Allies' debts.



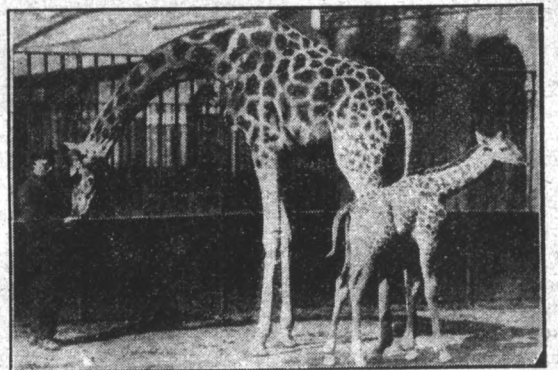
The Union Pacific Railroad has recently announced that this largest passenger locomotive in the world is to have fifty-four brothers for use during the heavy winter tourist traffic to the west.



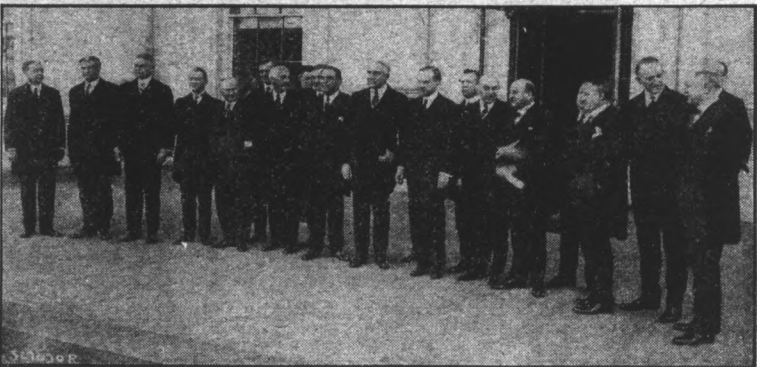
This rickety Paris taxi that helped save France from the Germans has been placed in the war museum of Hotel Des Invalids.



O. E. Bradfute, of Ohio, has been elected president of the American Farm Bureau Federation.



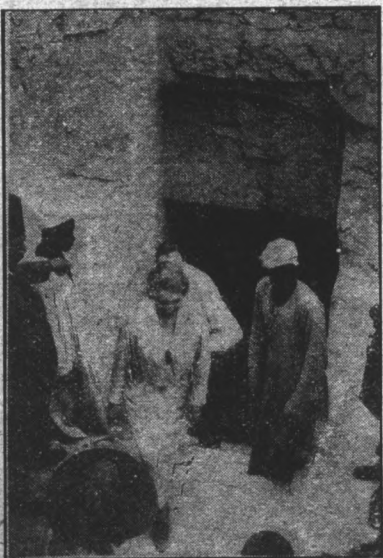
Ornamental but not beautiful are these African beasts with their long necks and forelegs that make them so ungainly.



Fifteen of the governors attending the fourteenth annual governors' conference, conferred with President Harding on the prohibition question. Two out of the fifteen were "wets."



Following the execution of four Irish Republican leaders on charges of possessing weapons the supporters of the Republican movement paraded to Graveney cemetery carrying biers.



Antique treasures of \$40,000,000 was found in the tomb of Egyptian king in ancient Thebes.



A group of typical nationalities at the Americanization school in Washington, D. C., where young people of many races are being transformed into real Americans.



\$750,000 worth of smuggled drugs was revealed when "fish barrels" were accidentally smashed.

THE CROSS-CUT —By Courtney Ryley Cooper

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There was a long silence. Finally: "Where's Rodaine?"

"In Center City." It was Anita who spoke. "He's getting ready to run away and leave you two to stand the brunt of all this trouble."

Again a silence. And again Harry's voice:

"Tell it. Wasn't you the man?"

"Once more a long wait. Finally:

"What do I get out of it?"

Fairchild moved to the man's side.

"My promise and my partner's promise that if you tell the whole truth, we'll do what we can to get you leniency. And you might as well do it; there's little chance of you getting away otherwise. As soon as we can get the sheriff's office, we'll have Rodaine under arrest, anyway. And I don't think that he's going to hurt himself to help you. So tell the truth; weren't you the man who help up the Old Times dance?"

Taylor Bill's breath traveled slowly past his bruised lips.

"Rodaine gave me a hundred dollars to pull it," came finally.

"And you stole the horse and everything—"

"And cached the stuff by the Blue Poppy, so's I'd get the blame?" Harry wiggled his mustache fiercely. "Tell it or I'll pound your 'ead into a jelly!"

"That's about the size of it."

But Fairchild was fishing in his pockets for pencil and paper, finally to bring them forth.

"Not that we doubt your sincerity, Bill," he said sarcastically, "but I think things would be a bit easier if you'd just write it out. Let him up, Harry."

The big Cornishman obeyed grudgingly. But as he did so, he shook a fist at his bruised, battered enemy.

"It ain't against the law to 'it a man when 'e's a criminal," came at last. The thing was weighing on Harry's mind. "I don't care anyway if it is—"

"Oh, there's nothing to that," Anita cut in. "I know all about the law—father has explained it to me lots of times when there've been cases before him. In a thing of this kind, you've got a right to take any kind of steps necessary. Stop worrying about it."

"Well," and Harry stood watching a moment as Taylor Bill began the writing of his confession, "it's such a relief to get four charges off my mind, that I didn't want to worry about any more. Make 'hit fulsome, Bill—tell just 'ow you did it!"

And Taylor Bill, bloody, eyes black, lips bruised, obeyed. Fairchild took the bescrewed paper and wrote his name as a witness, then handed it to

Harry and Anita for their signatures. At last, he placed it in his pocket and faced the dolorious high-jacker.

"What else do you know, Bill?"

"About what? Rodaine? Nothing—except that we were in cahoots on this cross-cut. There isn't any use denying it"—there had come to the surface the inherent honor that is in every metal miner, a stalwartness that may lie dormant, but that, sooner or later, must rise. There is something about taking wealth from the earth that is clean. There is something about it which

dragging Bozeman to his feet, started out of the cross-cut with them, Harry's carbide pointing the way through the blind door and into the main tunnel. Then they halted to bundle themselves tighter against the cold blast that was coming from without. On—to the mouth of the mine. Then they stopped—short.

A figure showed in the darkness, on horseback. An electric flashlight suddenly flared against the gleam of the carbide. An exclamation, an excited command to the horse, and the rider

came his announcement. "Is there a turn-off on it anywhere?"

"No." Anita gave the answer. "It goes straight through—but he'll have a hard time making it there in this blizzard. If we only had horses!"

"They wouldn't do us much good now! Climb on my back as you did on Harry's. You can handle these two men alone?" This to his partner. The Cornishman grunted.

"Yes. They won't start anything. Why?"

"I'm going to take Miss Richmond and hurry ahead to the sheriff's office. He might not believe me. But he'll take her word—and that'll be sufficient until you get there with the prisoners. I've got to persuade him to telephone to Center City and head off the Rodaines!"

CHAPTER XXIV.

Squint Rodaine Escapes.

HE stooped and Anita, laughing at her posture, clambered upon his back, her arms about his neck, arms which seemed to shut out the biting blast of the blizzard as he staggered through the high-piled snow and downward to the road. There he continued to carry her; Fairchild found himself wishing that he could carry her forever, and that the road to the sheriff's office were twenty miles away instead of two. But her voice cut in on his wishes.

"I can walk now."

"But the drifts—"

"We can get along so much faster!" came her plea. "I'll hold on to you—and you can help me along."

Fairchild released her and she seized his arm. For a quarter of a mile they hurried along, skirting the places where the snow had collected in breast-high drifts, now and then being forced nearly down to the bank of the stream to avoid the mountainous piles of fleecy white. Once, as they floundered through a knee-high mass, Fairchild's arm went quickly about her waist and he lifted her against him as he literally carried her through. When they reached the other side, the arm still held its place—and she did not resist. Fairchild wanted to whistle, or sing, or shout. But breath was too valuable—and besides, what little remained had momentarily been taken from him. A small hand had found his, where it encircled her. It had rested there, calm and warm and enthralling, and it told Fairchild more than all the words in the world could have told just then—that she realized that his arm was about her—and that she wanted it

QUESTIONS

By Teresa G. Morris

Whence cometh the fragrance of lily and rose?
Someone hath sent it—yet nobody knows.

Beyond and above the horizon so blue,
Isn't there something good, beautiful, true,

The wind and the wave—the woodland, the sea—
Who made them? Oh, Life, send an answer to me!

Where are the fairies who make baby smile?
What prompts childish laughter—'tis surely worth while.

Golden sunlight, and moonlight, the mist and the dawn
Are symbols of beauty unknown and unwon.

The song of the bird winging high in its flight,
The sunset, the star's silent glow in the night—

Whence come all these wonders? Whence? Whither and Why?
'Tis Life's strangest riddle—to solve it we try—
Yet over these queries we marvel and sigh!

seems honest in its very nature, something that builds big men in stature and in ruggedness, and it builds an honor which fights against any attempt to thwart it. Taylor Bill was finding that honor now. He seemed to straighten. His teeth bit at his swollen, bruised lips. He turned and faced the three persons before him.

"Take me down to the sheriff's office," he commanded. "I'll tell you everything. I don't know so awful much—because I ain't tried to learn anything more than I could help. But I'll give up everything I've got."

"And how about him?" Fairchild pointed to Blindeye, just regaining consciousness. Taylor Bill nodded.

"He'll tell—he'll have to."

They trussed the big miner then, and

wheeled, rushing down the mountain side, urging his mount to dangerous leaps, sending him plunging through drifts where a misstep might mean death, fleeing for the main road. Anita Richmond screamed:

That's Maurice! I got a glimpse of his face! He's gotten away—go after him somebody—go after him!"

But it was useless. The horseman had made the road and was speeding down it. Rushing ahead of the others, Fairchild gained a point of vantage where he could watch the fading black smudge of the horse and rider as it went on and on along the rock road, finally to reach the main thoroughfare and turn swiftly. Then he went back to join the others.

He's taken the Center City road!"

AL ACRES—Slim Gets Sympathetic About Synthetic Milk

—By Frank R. Leet.



there. Some way, after that, the stretch of road faded swiftly. Almost before he realized it, they were at the outskirts of the city.

Grudgingly he gave up his hold upon her, as they hurried for the sidewalks and for the sheriff's office. There Fairchild did not attempt to talk—he left it all to Anita, and Bardwell, the sheriff, listened. Taylor Bill had confessed to the robbery at the Old Times dance and to his attempt to so arrange the evidence that the blame would fall on Harry. Taylor Bill and Blindeye Bozeman had been caught at work in a cross-cut tunnel which led to the property of the Blue Poppy mine, and one of them, at least, had admitted that the sole output of the Silver Queen had come from this thieving encroachment. Then Anita completed the recital—of the plans of the Rodaines to leave and of their departure for Center City. At last Fairchild spoke, and he told the happenings which he had encountered in the ramshackle house occupied by Crazy Laura. It was sufficient. The sheriff reached for the telephone.

"No need for hurry," he announced. "Young Rodaine can't possibly make that trip in less than two hours. How long did it take you to come down here?"

"About an hour, I should judge."

"Then we've got plenty of time—hello—Central? Long distance, please. What's that? Yeh—Long Distance. Want to put in a call for Center City." A long wait, while a metallic voice streamed over the wire into the sheriff's ear. He hung up the receiver. "Blocked," he said shortly. "The wire's down. Three or four poles fell from the force of the storm. Can't get in there before morning."

"But there's the telegraph!"

"It'd take half an hour to get the operator out of bed—office is closed. Nope. We'll take the short cut. And we'll beat him there by a half-hour!" Anita started.

"You mean the Argonaut tunnel?"

"Yes. Call up there and tell them to get a motor ready for us to shoot straight through. We can make it at thirty miles an hour, and the skip in the Reunion Mine will get us to the surface in five minutes. The tunnel ends sixteen hundred feet underground, about a thousand feet from Center City," he explained, as he noted Fairchild's wondering gaze. "You stay here. We've got to wait for those prisoners—and lock 'em up. I'll be getting my car warmed up to take us to the tunnel."

Anita already was at the 'phone, and Fairchild sank into a chair, watching her with luminous eyes. The world was becoming brighter; it might be night, with a blizzard blowing, to every one else—but to Fairchild the sun was shining as it never had shone before. A thumping sound came from without. Harry entered with his two charges, followed shortly by Bardwell, the sheriff, while just beneath the office window a motor roared in the process of "warming up." The sheriff looked from one to the other of the two men.

"These people have made charges against you," he said shortly. "I want to know a little more about them before I go any farther. They say you've been high-jacking."

Taylor Bill nodded in the affirmative.

"And that you robbed the Old Times dance and framed the evidence against this big Cornishman?"

Taylor Bill scraped a foot on the floor.

"It's true. Squint Rodaine wanted me to do it. He'd been trying for thirty years to get that Blue Poppy mine. There was some kind of a mix-up away back there that I didn't know much about—fact is, I didn't know anything. The Silver Queen didn't amount to much and when demonetization set in, I quit—you'll remember, Sheriff—and

went away. I'd worked for Squint before, and when I came back a couple of years ago, I naturally went to him for a job again. Then he put this proposition up to me at ten dollars a day and ten per cent. It looked too good to be turned down."

"How about you?" Bardwell faced Blindeye. The sandy lashes blinked and the weak eyes turned toward the floor.

"I—was in on it."

That was enough. The sheriff reached for his keys. A moment more and a steel door clanged upon the two men while the officer led the way to his motor car. There he looked quizzically at Anita Richmond, piling without hesitation into the front seat.

"You going too?"

"I certainly am," and she covered her intensity with a laugh, "there are a number of things that I want to say to Mr. Maurice Rodaine—and I haven't the patience to wait!"

Bardwell chuckled. The doors of the car slammed and the engine roared louder than ever. Soon they were churning along through the driving snow toward the great buildings of the Argonaut Tunnel Company, far at the other end of the town. There men awaited them, and a tram motor, together with its operator—happy in the expectation of a departure from the usual routine of hauling out the long strings of ore and refuse cars from the great tunnel which, driving straight through the mountains, had been built in the boom days to cut the workings of mine after mine, relieving the owners of those holdings of the necessity of taking their product by the slow method of burro packs to the railroads, and gaining for the company a freight business as enriching as a bonanza itself. The four pursuers took their places on the benches of the car behind the motor. The trolley was attached. A great door was opened, allowing the cold blast of the blizzard to whine within the tunnel. Then, clattering over the frogs, green lights flashing from the trolley wire, the speeding journey was begun.

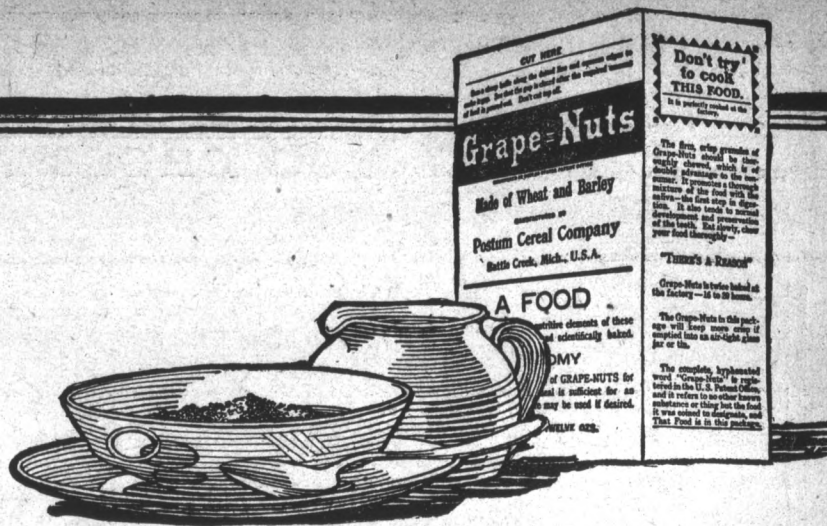
It was all new to Fairchild, engrossing, exciting. Close above them were the ragged rocks of the tunnel roof, seeming to reach down as if to seize them as they roared and clattered beneath. Seepage dripped at intervals, flying into their faces like spray as they dashed through it. Side tracks appeared momentarily when they passed the opening of some mine where the cars stood in long lines, awaiting their turn to be filled. The air grew warmer. The minutes were passing, and they were nearing the center of the tunnel. Great gateways sped past them; the motor smashed over side-tracks and switches as they clattered by the various mine openings, the operator reaching above him to hold the trolley steady as they went under narrow, low places where the timbers had been placed, thick and heavy, to hold back the sagging earth above.

Three miles, four, five, while Anita Richmond held close to Fairchild as the speed became greater and the sparks from the wire above threw their green, vicious light over the yawning stretch before them. A last spurt, slightly down-grade, with the motor pushing the wheels at their greatest velocity; then the crackling of electricity suddenly ceased, the motor slowed in its progress, finally to stop. The driver pointed to the right.

"Over there, sheriff—about fifty feet; that's the Reunion opening."

"Thanks!" They ran across the spur tracks in the faint light of a dirty incandescent, gleaming from above. A greasy being faced them and Bardwell, the sheriff, shouted his mission.

"Got to catch some people that are making a get-away through Center (Continued on page 51).



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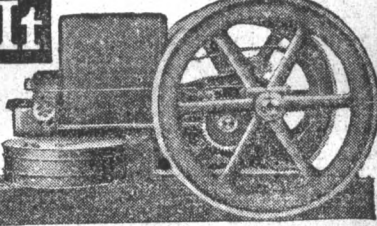
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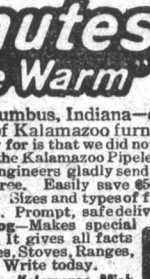
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Does It Pay to Be Humble?

Our Weekly Sermon—By N. A. McCune

HUMILITY has been thought of so much, that there are many proverbs on it, in almost all languages. Naturally, the most famous are those found in the Bible: "Better it is to be in an humble spirit with the lowly, than to divide the spoil with the proud." "A man's pride shall bring him low; but honor shall uphold the humble in spirit." "By humility and the fear of the Lord, are riches, honor and life." "Whosoever therefore shall humble himself as this little child, the same is great in the kingdom of heaven." "For whosoever exalteth himself shall be abased; and he that humbleth himself shall be exalted." "God resisteth the proud, but giveth grace to the humble."



"He hath showed thee, O man, what is good; and what doth the Lord require of thee, but to do justly, love mercy and walk humbly with thy God?"

When you turn to literature for references to humility, there is an abundance of them. "Nothing is more scandalous," says Marcus Aurelius, "than a man that is proud of his humility." "Life is a long lesson in humility," says Sir J. M. Barrie. "Humility is the foundation of all virtues," says Confucius, the Chinese sage. Bunyan, in Pilgrim's Progress, puts it thus: "He that is down need fear no fall, he that is low, no pride." "Humility, that low, sweet root, from which all heavenly virtues shoot," says Thomas Moore. "Humility is a virtue all preach, none practice, and yet everybody is content to hear," says the wise John Selden. Suprgeon, the celebrated English preacher, says, "Humility is to have a just idea of yourself." Two old proverbs run: "Better eat humble pie than no pie at all," and, "The meekness of Moses is better than the strength of Samson."

ALL this is not much in accord with the modern way of looking at things. Our slogan is, advertise, advertise. He that doth not toot his own horn, shall not hear it tooted at all. One might almost say, that the present day beatitude is, "Blessed are the brazen, for they shall inherit the earth. And yet at bottom, we know that it is not so. The great are humble today, just as they have ever been.

One day a man was looking for Daniel Webster. Webster was at that time secretary of state, under President Tyler. A small river lay in the stranger's path. "Ho, there," said he to a rough looking man, in high boots, "I will give you what it is worth to carry me over the river." The rough looking fellow agreed, and it was Webster himself. One day some Englishmen were being shown through the White House in the days of President Lincoln. Accidentally, so the story goes, they came upon the President blacking his boots. The visitors excused themselves as best they could, one of them muttering something about the fact that in England the rulers do not black their own boots. "Don't they?" said Mr. Lincoln, "then whose boots do they black?"

Of late I've been reading "Watchers of the Sky," the tale of the great astronomers, and how they made one discovery after another, that changed the science of astronomy, and opened up the universe of the heavens. These men, as "Watchers of the Sky" shows them, are the most unpretentious and humble of men. They could not be more so. Doubtless their studies of the vast universes above and about us

had humbled them, with the thought of the smallness of our own little planet. There are some great pictures here. There is Copernicus, who is dying. He has written a book, and he resolves he will not die until it has come from the printer's. The church has pronounced against his theory (that the earth moves around the sun, instead of the sun moving around the earth), and Copernicus, without rebellion or hatred, accepts the criticism of the church, but holds to the truth of his discovery. The book is placed in his hands and with a prayer of thanksgiving for the goodness of God he passes away. Tycho Brahe, the great Danish astronomer, has the same attitude. Though he is deprived of his living by a thoughtless king, and must leave for other parts, he continues his making of the charts of the heavens, and passes on the torch of truth to young Kepler. It is a great story, and it is a story of suffering, humility. These men had brains, yet in their attitude they were more modest than ordinary folk.

WITH literary men it has often been the same. While a writer appears now and again who is on the lookout for favorable comment on his books, the big fellows have always been of a quiet and retiring sort. The fact is, they have to be. So do great scientists. To be humble is the only way to learn. You have to look at nature and submit to her, and ask her questions, and wait for an answer. You cannot browbeat her, or frighten her into doing your will. I like that saying of Huxley, "Science seems to me to teach in the highest and strongest manner the great truth which is embodied in the Christian conception of entire consecration to the will of God. Sit down before a fact as a little child, be prepared to give up every preconceived notion, follow humbly wherever and to whatever abysses nature leads you, or you shall learn nothing."

THIS is the secret of the amazing influence of such men as Francis of Assisi, Xavier and Livingstone. They were willing to give up home, civilization, not to go to some other continent and make a fortune, but to go there to take the gospel of good will, peace, healing and cheer. Such names will never die. The picture of Livingstone kneeling by his pallet in Africa, dead, will never fade out, so long as the Christian church exists. Such men unquestionably have what we are talking about—humility. Probably Paul's definition of it has never been surpassed—not to think more highly of yourself than you ought to. Humility is to see ourselves as we really are. And that, as every one knows, is not easy. The world does honor humble people. History honors them. And, above all, we know that the Master of men honors them.

The most striking and amazing example of this virtue is our Lord Himself. When He came to earth, He filled men with the belief that he was the promised Messiah. And Messiah, as all the Jews believed, was to rule the nations. He would assert his authority, humble all other peoples, and make the chosen people the chief nation of the earth. He did the exact opposite of all this. He deliberately chose the path of dishonor, shame, suffering, the cross, and death.

SUNDAY SCHOOL LESSON FOR JANUARY 14.

SUBJECT:—Jesus teaching humility.
LESSON:—Luke 14.
GOLDEN TEXT:—God resisteth the proud, but giveth grace to the humble, I Pet. 5:5.

The Cross-Cut

(Continued from page 49).

City. Can you send us up in the skip?"

"Yes, two at a time."

"All right!" The sheriff turned to Harry. "You and I'll go on the first trip and hurry for the Ohadi road. Fairchild and Miss Richmond will wait for the second and go to Sheriff Mason's office and tell him what's up. Meet us there," he said to Fairchild, as he went forward. Already the hoist was working; from far above came the grinding of the wheels on rails as the skip was lowered. A wave of the hand, then Bardwell and Harry entered the big, steel receptacle. At the wall the greasy workman pulled three times on the electric signal; a moment more and the skip with its two occupants had passed out of sight.

A long wait followed while Fairchild strove to talk of many things—and failed in all of them. Things were happening too swiftly for them to be put into crisp sentences by a man whose thoughts were muddled by the fact that beside him waited a girl in a whipcord riding suit—the same girl who had leaped from an automobile on the Denver highway and—

It crystallized things for him momentarily.

"I'm going to ask you something after a while—something that I've wondered and wondered about. I know it wasn't anything—but—"

She laughed up at him.

"It did look terrible, didn't it?"

"Well, it wouldn't have been so mysterious if you hadn't hurried away so quick. And then—"

"You really didn't think I was the Smelter bandit, did you?" the laugh still was on her lips. Fairchild scratched his head.

"Darned if I know what I thought. And I don't know what I think yet."

"But you've managed to live through it, haven't you?"

"Yes—but—"

She touched his arm and put on a scowl.

"It's very, very awful!" came in a low, mock-awed voice. "But—" then the laugh came again—"maybe if you are good and—well, maybe I'll tell you after a while."

"Honest?"

"Of course I'm honest! Isn't that the skip?"

Fairchild walked to the shaft. But the skip was not in sight. A long ten minutes they waited, while the great steel carrier made the trip to the surface with Harry and Sheriff Bardwell, then came lumbering down again. Fairchild stepped in and lifted Anita to his side.

The journey was made in darkness—darkness which Fairchild longed to turn to his advantage, darkness which seemed to call to him to throw his arms about the girl at his side, to crush her to him, to seek out with an instinct that needed no guiding light the laughing, pretty lips which had caused him many a day of happiness, many a day of worried wonderment. He strove to talk away the desire—but the grinding wheels in the narrow shaft denied that. His fingers twitched, his arms trembled as he sought to hold back the muscles, then, yielding to the impulse, he started—

"Da-a-a-gone it!"

"What's the matter?"

"Nothing."

But Fairchild wasn't telling the truth. They had reached the light just at the wrong, wrong moment. Out of the skip he lifted her, then inquired the way to the sheriff's office of this, a new county. The direction was given, and they went there. They told their story. The big-shouldered, heavily mustached man at the desk grinned cheerily.

"That there's the best news I've

heard in forty moons," he announced. "I always did hate that fellow. You say Bardwell and your partner went out on the Ohadi road to head the young 'un off?"

"Yes. They had about a fifteen-minute start on us. Do you think—?"

"We'll wait here. They're hefty and strong. They can handle him alone."

But an hour passed without word from the two searchers. Two more went by. The sheriff rose from his chair, stamped about the room, and looked out at the night, a driving, aimless thing in the clutch of a blizzard. "Hope they ain't lost," came at last. "Hadn't we better—?"

But a noise from without cut off the conversation. Stamping feet sounded on the steps, the knob turned, and Sheriff Bardwell, snow-white, entered, shaking himself like a great dog, as he sought to rid himself of the effects of the blizzard.

"Hello, Mason," came curtly.

"Hello, Bardwell, what'd you find?"

The sheriff of Clear Creek county glanced toward Anita Richmond and was silent. The girl leaped to her feet.

"Don't be afraid to talk on my account," she begged. "Where's Harry? Is he all right? Did he come back with you?"

"Yes—he's back."

Bardwell was silent again, biting at the end of his mustache. Then he squared himself.

"No matter how much a person dislikes another one—it's, it's—always a shock," came at last. Anita came closer.

"You mean that he's dead?"

The sheriff nodded, and Fairchild came suddenly to his feet. Anita's face had grown suddenly old—the oldness that precedes the youth of great relief.

"I'm sorry—for any one who must die," came finally. "But perhaps—perhaps it was better. Where was he?"

"About a mile out. He must have rushed his horse too hard. The sweat was frozen all over it—nobody can push a beast like that through these drifts and keep it alive."

"He didn't know much about riding."

"I should say not. Didn't know much of anything when we got to him. He was just about gone—tried to stagger to his feet when we came up, but he couldn't make it. Kind of acted like he'd lost his senses through fear or exposure or something. Asked me who I was, and I said Bardwell. Seemed to be tickled to hear my name—but he called it Barnham. Then he got up on his hands and knees and clutched at me and asked me if I'd drawn out all the money and had it safe. Just to humor him, I said I had. He tried to say something after that, but it wasn't much use. The first thing we knew he'd passed out. That's where Harry is now—took him over to the mortuary. There isn't anybody named Barnham, is there?"

"Barnham?" The name had awakened recollections for Fairchild; "why he's the fellow that—"

But Anita cut in.

"He's a lawyer in Denver. They've been sending all the income from stock sales to him for deposit. If Maurice asked if he'd gotten the money out, it must mean that they meant to run with all the proceeds. We'll have to telephone Denver."

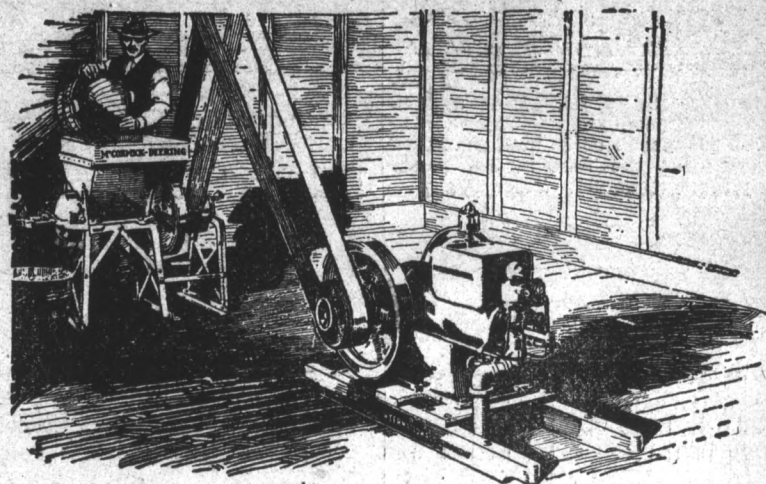
"Providing the line's working." Bardwell stared at the other sheriff. "Is it?"

"Yes—to Denver."

(Concluded next week).

Says Sam: The fellow who can do the most for you is the fellow you see when you shave.

A scrub bull on a good farm is like an ink-spot on an otherwise cleanly written page.



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New Declaration of Independence

By W. G. Earle

THE farm women of the state of Nebraska have issued a "Declaration of Independence," demanding a power washing machine for every tractor bought for the farm, a bathtub for every binder, running water in the kitchen for every riding-plow, an oil stove for every motor truck, a fireless cooker for every mowing machine, and a share of the farm income (if there is any).

New machinery has come to the farm out of necessity. With the growing shortage of farm labor, both for farm and home; with one-third of the population of the country feeding not only themselves, but the other two-thirds, the farm is the place where mechanical aid is needed on the farm and in the home.

There are correspondingly fewer women in the farm homes today. The daughters are going to school, the unmarried sister who used to be a boon to busy farm mothers is a much-occupied business woman in town, and the hired girl in the country is almost extinct. You can't expect a girl to work in a house where she has to carry water from a well and wash milk pails and stoke a wood stove, when she can get almost any wages she wants in the neighborhood of steam heat and movies and water-power washing machines.

The farmer's wife does this herself,

not just because her lot has been cast in the country, but because she believes the advantages of the country far outweigh those of the city as a place to live. Sometimes she gets overtired and discouraged and wants to leave the farm. Sometimes her health breaks down and the family have to move to town—and pay doctor bills for years. Her husband knows just one trade or profession—farming—so he hires out as a common laborer; he does not like it a little bit; he longs for the wide acres and herds again. Having to buy every scrap of food and fuel is a new practice after coming from the abundance of home-grown things on the farm, and the man's wages are not large and evaporate very easily. So the ex-farm family find themselves scrimping along on the edge of poverty, and they cannot give the children the chance they want them to have.

All of which is the result of failing to give mother the little necessities of labor-saving devices which not only make life worth-while, but conserves the life of the mother. Would it not have been better had this father put into improved labor-saving devices for the farm home, that which he later paid out as doctor bills and sacrificed

income and happiness, because he was forced to move to town and become a ditch-digger in his prime?

These recurring tragedies may be averted. Hired help is out of the question. A man on a farm cannot give much help around the house because he already has more than he can do outside. The only solution is mechanical equipment that will save and take over the heavier manual labor of housework.

Farm women agree that the country is the best place in the world to live and the only place to bring up children, and that home-making is the happiest profession for a woman, that in no other place has she such a scope for her head and her heart and her hands and all the executive and administrative ability she can cultivate.

But if the possibilities of the farm home and country life, and the profession of home-making and motherhood are to be all that is claimed for them, it must be put within the strength and ability of the average farm woman to do the work of her home happily and comfortably.

After all, perhaps the Nebraska women have given the farm women of other states a good suggestion. Certainly they demand only justice, namely, that the home keep pace with the farm in adopting improved devices.

Care of the Home Meat Supply

(Continued from last week.)

Third Prize.

Mrs. F. K., New Lothrop, Michigan.

Home-made Bacon.

After pork is cold, lay it on the table, skin side down, and rub into the fleshy parts a generous supply of brown sugar.

For 100 pounds put two pounds of good coarse barrel salt in an iron frying pan over a hot fire and stir constantly until it will hiss when a drop of water touches it.

Just before removing from the stove stir in two ounces of pulverized salt-peter. Spread this over the meat, while hot, with a large spoon and let remain for three days, then wipe dry and smoke immediately.

Hasty Mincemeat.

Two teacups cold meat (either roast or boiled beef) chopped; three teacups of apples; one teacup of sugar; half teacup of molasses; pinch of soda; half cup of prune or other fruit juice (any kind); half teacup cold coffee; half lemon (in place of vinegar); one pound seeded raisins; two tablespoons currant or grape jelly; two teaspoons of cinnamon; half teaspoon of clover and nutmeg; salt and pepper to taste. Mix well. It will make three pies.

Mincemeat Without Apples.

Slice and pare a pumpkin. Put it through a food chopper with a medium cutter, not too fine. Pour over it weak vinegar. Let set over night. Put on the stove and let it come to a boil. Drain it, and proceed exactly as if it were apple. After you have the mincemeat all mixed, boil all together until the pumpkin is soft, using great care not to cook a minute too long, else it will be mushy. A critic cannot tell that apples were not used.

Fourth Prize.

Mrs. D. R. W., Rochester, Michigan.

When butchering there is so much fresh meat, I fry a ham and a shoul-

der. Cut up in slices, salt and pepper to taste, cook as if to use on table only not quite so hard. The water must be all cooked out of meat. Pack in crocks and when crock is full put a plate on top, smaller than crock. I put the bacon strips in with the ham and smoke when hams are smoked. Cut all the meat from the head that can be and put with sausage meat. Give the bones to the chickens and get more eggs.

Mincemeat.

One quart of meat beef; half pint of suet; two quarts of apples; one cup of vinegar; one cup of molasses; one quart of fruit juice (cherry is good); one heaping teaspoon of cloves; one heaping teaspoon of cinnamon; one heaping teaspoon of allspice; salt and sweeten to suit taste. Put in a little water to cook, half package of currants and half package of raisins. Cook until done. It will make about three and one-half quarts to make it moist.



Australian Fur has never been so popular as it is right now and it is most effective in sand-colored tones, especially when fox fur of the same color is used for trimming.

Good Sausage.

Twenty-seven and one-half pounds of meat, two-thirds lean and one-third fat; half pound salt; three ounces of good black pepper; half teaspoon red pepper; two tablespoons of sage; half cup of cornmeal; three-fourths cup flour; mix thoroughly. Pack in pans, cover top with melted lard about a quarter-inch thick, set away in a cool place.

Fifth Prize.

Mrs. D. R., Conway, Michigan.

Best-ever Mincemeat.

Many people don't like mincemeat. I never liked it until I made some like this and I have had several people say they never ate such good mince pies before. Here it is. You can use beef, chicken or tame rabbit, or wild meat of any kind. I used for mine, four wild rabbits; three quarts of peeled apples; one quart of pitted cherries; one pint of seeded grapes; one pound of seedless raisins; one pound of suet; two tablespoons of cinnamon; one teaspoon each of cloves, allspice and nutmeg; one tablespoon of salt; two quarts of sugar. First I cook the meat until it can be easily picked off the bone, and then grind it through the food chopper. Next I add my can of cherries; chop apples quite fine, and add; then grapes, raisins, spice, sugar, salt and suet; the suet should be chopped fine or run through food chopper.

This will keep a long time for pies if kept cold. It can be canned by packing in cans cold, and cooked in steamer for three and one-half hours. It does not have to be cooked first for pies.

Every busy wife and mother should arrange to see a model house and learn how to conserve her strength and energy.

Samantha says: Homes where the womenfolk sing as they work have riches which neither wind, rain, nor bad markets can wipe out.

Making Pin Money at Home

By the Prize Winners

THE results of the contest this week demonstrate to a good advantage that the housewives are ever on the alert to make both ends meet and to have these ends overlap as far as possible. The problem of making pin money appears to have been successfully solved by some, even when the duties of caring for a large family demand much time and attention.

Many letters were received that contained profitable suggestions for replenishing the family purse, but space will permit only the five prize winners to appear here. Some told about the money earned by raising poultry, but that can hardly be considered as pin money. It should more appropriately be placed among profits of other farm produce and shared with friend husband. Not a few told about their methods of economizing and saving in the home. The old adage, "A penny saved, a penny earned," is quite suited here. The returns of economy and frugality are really "long distance wages."

The replies to the contest have become so numerous each week that I have had to push other work aside in order to take care of them. So it has been deemed advisable to get someone else to look after this part of the work. Henceforth address your letters to Martha Cole. I believe you can rely on her to pass fair judgment in each case. She will also help you solve any of your home problems and answer with a personal reply any question you send her. I trust you will like her and show her the splendid cooperation you have shown me.

And now, Martha, you may have the chair.—Household Editor.

First Prize.

Mrs. N. D., Mt. Clemens, Michigan.

Many farm women have large, old-fashioned houses with more room than they need. I, for one, am so situated, and last summer turned this extra room into pin money. I rented the rooms for light housekeeping to a mother and her children from the city during the summer. By entering an ad. in a Detroit paper the last part of June, I received several replies. I rented the two rooms furnished as sleeping room and kitchen. Rent, milk, eggs, broilers and vegetables came to about \$80 after expenses were paid. People coming from the city come more to enjoy the out-of-doors than beautiful rooms. They only ask for rooms to be clean and comfortable and not elaborately furnished.

Second Prize.

Mrs. A. S., Hermansville, Michigan.

My pin money comes to me from raising Scotch Collie puppies. I have so much work to do, both in the house and field, that I have very little spare time. There is no work at all in this "side line," as my puppies have the run of the farm and are usually sold before they are three months old. I feed them stale bread, boiled potatoes, skim-milk and all the table scraps. In return they give me a fair profit to help fill the family purse.

Third Prize.

Mrs. B. T., Brown City, Michigan.

I believe I have found a very efficient way for making pin money. With the little slip-over sweaters so much in vogue, I bought some yarn and crocheted them. I could buy the yarn for about two dollars and could sell them readily for four dollars. Later I found that people wanted collars and cuffs for them so I made them some pretty ones of linen, organdy and leather and sold them generally with the sweaters. The crocheted sweaters make up very

quickly, and thus the more gain for me.

Fourth Prize.

Mrs. H. B. W., Coloma, Michigan.

I live on a farm and would like to tell others how I make my pin money. During the winter time I make cottage cheese and sell it to our near town grocery and meat market. Besides I have all the customers I can furnish directly from my home. I charge ten cents per pound and make a supply once a week.

Fifth Prize.

Mrs. W. P. O., Charlotte, Michigan.

I raise about one-fourth of an acre of flowers and sell the cut flowers. In the spring I raise a good many aster, pansy and salvia plants to sell, and get my seed from a seed company. In the fall I save my own seed and sell some to friends, and thus it is necessary to

How I Make My Rugs

IT is during the long winter evenings that the housewife plans and makes the small rugs to replace those worn out during the past year. There are numerous methods and interesting color schemes to be worked out.

We will give an aluminum preserving kettle for the best letter telling your method, color combination and means of dyeing material for home-made rugs. The second prize will be an aluminum frying-pan, while third, fourth and fifth prizes will be aluminum sauce pans.

Address all letters to Martha Cole, Michigan Farmer, Detroit, Mich., before January 19.

buy seed only every other year. I sold about forty dollars worth of flowers last summer and had all I could use for myself and friends. I took some flowers to the fair and got a number of premiums on them.

A TIMELY SUGGESTION.

COOL nights suggest more bed covers. Old comforters can often be made to do double service by doing a little extra work on them. When the top is much worn, but the lining is in a good state of preservation, a new top can be pieced from extra pieces that we have laid by, either in a design or crazy work. Carefully launder the old comforter than tie on the top. Be sure to have the border come well over the edge of the old lining and whip down carefully. Old comforters too much worn to be used as covers can be made into very good mattress pads. Ten yards of outing will make the top and bottom, tied in the usual way. Much worn blankets used in the place of batten in making new comforters are very good.—Mrs. H. E. K., Emmet County.

HOUSEHOLD SERVICE.

I SAW a request for French mustard dressing, such as we buy. Here is one I have used a long time. It makes a little more than can be bought for ten cents, and you are sure of what you are eating.

Stir one tablespoon of granulated sugar with three level tablespoons of dry mustard. Then stir in with the dry mustard one egg until it is all smooth. Then add a few drops at a time, one teacup of good cider vinegar. Cook this in a double boiler until it thickens.—Mrs. F. L.

Lily White

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A GOOD RECIPE FOR ENGLISH TEA BISCUITS

4 cups Lily White flour, 4 level teaspoons baking powder, 1 teaspoon salt, 2 table-spoons butter or fat, 1 cup of mashed potatoes, 1 cup of milk. Boil and mash potatoes, having them free from lumps. Sift the flour, salt and baking powder, add potatoes and rub in fat or butter. Mix to a light dough with egg and milk; roll out a little thinner than ordinary biscuits and bake in hot oven. Serve hot. Use potatoes while warm.

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If for any reason whatsoever you do not, your dealer will refund the purchase price.—He's so instructed.

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For baking good-to-eat, wholesome breads Lily White has never been surpassed. This is because the wheat is selected and every step of the milling process is made for the purpose of producing breads you will like. But you will never appreciate Lily White to the fullest extent until you have experienced the pleasure of baking with it.

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REASON No. 20

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Our Boys' and Girls' Department

Does the Boy Own His Calf?

For Young Folks and Their Parents to Read

NEVER before have we seen such splendid calf club shows as have been offered recently at the county and state shows. Boys and girls are not only making a name in the club classes, but are stepping right into the open classes and holding their own with the experienced breeders and showmen.

Such are proud moments for the boys and girls. For they know they have achieved something well worth while, the thing they have been work-



Maurice Stead, Howard Bryant, Leonard Hoerner, of St. Johns, Winners at State Apple Show.

ing for all year, or in some cases for two and three years. On the other hand, we often find the parents watching from the side lines, very proud indeed of the young people who are taking the game of life and farm in a serious way. Perhaps in their boy and girlhood days such things as young people's clubs were unknown.

There is one feeling which a boy or girl loves even more than winning a contest, and this is the sense of ownership. No boy can get a real thrill

out of winning a contest unless he owns the calf that is making the record. He can't take father's or the neighbor's calf, fit it up, and win wholeheartedly. Yet this is what we find some boys and girls trying to do. During the past few weeks at various shows we have talked with a large number of boys and girls in the calf club barns. In most cases the calf club work is a complete reality to the young people. They own their calves and have registration papers made out in their own names to prove it, and this is how it should be. How sorry we feel for the little fellow who says, "It's Dad's, but I call it mine, and I get the money for showing."

What a contrast that statement is to the boys who says, "You bet it's mine. I bought it last March and gave my note at the bank."

The first boy has never known the joy of ownership. Nothing but disappointment can await him when the calf goes back into the herd and his money, if he won any, is spent. We can't see where he has gotten any help from such work either. It usually turns out that the winner is Dad, because he has a heifer well raised which he proudly displays to his friends or sells at a profit. But where does Johnnie come in?

Once in a while we meet a father who seems to think it's all right to divide up his calves among his boys and girls about show time. Certainly such a practice is not fair, either to his own children, the other boys and girls in the ring, or himself. Enough could not be said against such a practice, but we are glad to say that such instances are few.

Let your boy own his calf, not only in name but in fact. See that the registration papers are made out in his name. On the other hand, the boy should pay for this calf. It will not be appreciated as a gift.

guess it is time I quit this and go too.—A niece, Lola Court, Allen Mich., R. 1. I appreciate very much your writing me on Christmas Day. Often letters have to go unanswered because I have not the time to answer them. I presume you have seen my pictures.

Dear Uncle Frank:

I have written you before, but my letter must have found the waste paper basket, as I did not see it in print. I hope this one will be interesting enough to reach the "Letter Box." I enjoy reading the boys' and girls' letters so much and only wish you had room to print more.

I live on a ten-acre fruit farm but wish I could live on a larger one. What fun it must be to live on a farm with cows and horses, sheep and pigs.

I live but a few minutes' walk from Lake Michigan and love to go in swimming in the summer and climbing over the ice in winter. My brother and I have a small black dog that loves to go with us, and he sure looks black and small among the mountains of ice.

I think this is getting too long so will close, with a Happy New Year to

thirteen years old and in eighth grade. I like to read story books, my favorite ones are: Try Again; Rip Van Winkle; Sink or Swim; Shifting for Himself, and others.

I have eleven sisters and two brothers. One brother is in Chicago, and the other one is in Ann Arbor at the hospital.—Another nephew, Francis Pantila, Kaleva, Mich., R. 1.

I used to like the same kind of books when I was thirteen. You have many more sisters than I had; I didn't have any.

Dear Uncle Frank:

Merry Christmas and a Happy New Year.

What did you get for Christmas? I got a No. 2 Kewpie camera, four books, and other things.

I have three cats. I am going to take the cats and my sister Edith's picture with my camera.

I have been trapping this fall and winter. I have made over \$50 worth of furs so far. I have caught thirty-one muskrats and one mink. I hope to get a skunk in the morning. I tracked



Part of the 670 Boys and Girls who Won Free Trips to the International Live Stock Show Last Month.

you all.—Faith H. Goodell, St. Joseph, Mich.

I, too, wish I had room to print more of the nice letters I receive. I used to live next to old Lake Michigan and have experienced the fun you have. I like the meaning of your first name.

Dear Uncle Frank:

I am writing you for my third time and I am a Ball. So it is three times and out, as you know when you play ball.

This is the first Read-and-Win Contest I ever tried to write, but it was very easy.

One of the questions, "Who bought a forty-acre farm for \$160?" My father knows the man very well; he has grown thousands of bushels of potatoes which he sold at the same market that Mr. Petifer did.

Well, I must say good-bye.—Arthur Ball, DeWitt, Mich.

In baseball it is also four balls and take your base. So, you really had another chance coming.

Dear Uncle Frank:

May a lonely little city girl join your circle? I sincerely hope I may.

I am sixteen years old, have bobbed hair and am not very pretty. Will that do for a description of myself?

I have often read the cheery letters from your other nieces and nephews and so hoped that I could be one of them.

Well, as my letter is getting rather lengthy, I will bring it to a close.—I am your loving niece, Phoebe A. Belanger, Gladstone, Mich., Box 804.

You certainly are welcome. Judging from your description of yourself, I believe you are modest. That's a good trait to have.

Dear Uncle Frank:

This is my first letter. I hope nobody will make fun of it.

I live on a farm. For pets I have two tame rabbits and three cats. I am

him into a hole. I like hunting and trapping. I have a rifle.

Well, I believe it is bedtime so will have to stop. I am a boy, thirteen years old, and in seventh grade at school.—Your unknown nephew, Leonard Garlick, Willis, Mich., R. 1.

The most appreciated thing I got for Christmas was the many good wishes from pals. I would be glad to receive a picture of your sister and the cats. Come again, Leonard.

Dear Uncle Frank:

How are you? Did you have a happy Xmas? I wonder if Santa Claus brought you many toys.

I was going to send you a Christmas letter, but I kept putting it off, and it isn't written yet, you see. So that proves the famous old saying that you should never put off anything that you can do today until tomorrow.

Ha! Ha! I've got it all mixed up.

Well, I'm sending my five resolutions in. I think they're pretty good, but I don't think I'll win, because of my writing. I always had trouble with my writing, anyway. I wish I could improve it some.

Well, I'll say good-bye now, and a Happy New Year's Day. (You see, I can't wish you a happy Xmas, so I wish you a Happy New Year.—Susie Lurty, Fair Haven, Mich.)

You bet I had a nice Christmas but I did not get any toys, although I think some boys should have gotten me a rattle to play with.

TO BE OR NOT TO BE.

I'd rather be a Could Be
If I could not be an Are;
For a Could Be is a Maybe,
With a chance of touching par.
I'd rather be a Has Been
Then a Might Have Been by far;
For a Might Have Been has never been,
But a Has was once an Are.

Our Letter Box

THIS letter box will be where the boys and girls can express their views, tell of themselves and things about the farm, or ask advice. The most interesting letters each week will appear here. Address your letters to me.—Uncle Frank.

Dear Uncle Frank:

Here I am knocking again at the door of this "Merry Circle." Please move over and make room for another cousin. I wrote a letter a long time ago but it landed in that horrid "Waste Paper Basket." But "if at first you don't succeed, try and try again," is my motto, and I think it is a pretty good one, don't you Uncle Frank?

I guess I had better tell you what I look like: I weigh 119 pounds and am five feet two and one-half inches high. I have light blue eyes and medium brown hair. Of course, I've got freckles on my nose and am dreadful tanned, but I can't help that. Hope I'm accepted as a cousin.

I go to school every day and like it very much. I am in the eighth grade and hope to pass the examination. If I do its high school next year if nothing happens.

Will close for this time.—Grace Rindard, Mesick, Mich.

You're accepted and welcome. That waste basket is a horrid place, isn't it?

Dear Uncle Frank:

May I join your happy circle of nephews and nieces? I have written four letters to you before but have never seen one published yet. But this time I hope to be more successful.

Would you like to hear about my pets? I have seven of the prettiest

doves you ever say. I suppose you will wonder where and how I got them. Well, we have a number of dove-nests in the barn. I watch them and just as soon as the eggs are hatched I pick out the prettiest ones and feed them myself. It does seem cruel but they don't seem to mind it for when they become about two months old they fly on my shoulder and even eat out of my hand.—Your nephew, Donald Sawyer, Ada, Mich., R. 1.

You are to be congratulated on your persistency. It's a good thing to have. Your dove pets must be interesting.

Dear Uncle Frank:

I have just walked in once more, you see, but I just can't keep out. I had to come this time to find my letter. I wrote the last time and as I didn't see it or an answer to either one, that or your photo either. But I guess I won't cry over spilled milk, as they say.

Dear Uncle Frank, I do hope you had a nice time today, and I expect you did as this is Xmas. I wish you a very happy New Year.

My brother, and also father, are in Battle Creek, so you see mother and I are the chore boys, if so we might be called.

This letter is getting rather long and everyone else has gone to bed, so I

Some Prize Poetry

By Michigan Boys and Girls

A THOUGHT.

Wishing star that shines tonight,
Do not smile at me,
Look you toward some lovely child,
Who in the dark may be.

Bluebird, sing not at my door,
But be you swiftly flown,
To where perhaps some little child
In silence sits alone.

Roadside berries, red in June,
Change your place to grow,
For fear some lonely little child
May empty-handed go.

—By Miss Hulda A. Schafer, Hopkins,
Michigan.

THE TEACHERS.

Tell me not in mournful numbers
Latin's but an easy dream.
For the pupil is lost that slumbers
As verbs are not what they seem.

School is real, teachers earnest;
And play is not their rule.
Fun thou art, to fun returnest
Is not spoken of their school.

Not enjoyment, only sorrow
Is their destined end or way.
But they work that each tomorrow
Finds us further than today.

Exams are long and time is fleeting.
Teachers all are strict and brave,
While our loyal hearts are beating
Our funeral marches to the grave.

In Literature's broad field of battle,
In the terrible Latin scramble,
We are dumb, like driven cattle,
And all we do is, Ramble! Ramble!

Trust no teacher, however pleasant,
Exams they'll bring before they
leave.

Work—Work in the living present,
For when they come your heart'll
grieve.

The teachers all can well remind us
Of the chemistry equation.
For tho' the past we leave behind us,
The test will come before vacation.

Notebook, that today to me, look
Terrible, another time, this same
Forlorn and shipwrecked book
Seeing, may take heart again.

—By Helen M. Finkler, Coopersville,
Michigan, R. 2.

DISHES.

When the evening meal is o'er,
And locked and bolted every door,
Comes the time of which I dread;
Oft I wish I were in bed.

For stacked upon the table low
A thousand dishes in a row,
Stacked till they almost reach the sky,
And most of them smeared with
sticky pie.

The muffin pans all crusted with dough
Stand in a helpless and straggly row.
And I must scrape till I get them clean,
No wonder the muffin pans think I'm
mean.

In the morning mother says with a
sigh,

"Florence, look at these muffin pans,"
I almost could cry.

"There's muffin in every crack and
crease

And the frying pan's literally cover-
ed with grease.

"The spoons are filthy with dirt and
egg.

Do the dishes right. Do I have to
beg."

Then at nine I go to bed,
Holding the morning dishes in dread.

By Florence Louise Dunn, Elwell,
Michigan, R. 1.

DEAR UNCLE FRANK.

While looking at the pictures
That the lads and lasses drew,
I tried my very hardest
To decide which looked like you.

In one you are young, in another old.
In some you are in between,
While in one you are stout and pussy,
In the other you are rather lean.

One shows the marks of intellect,
The other a vacant stare.
In one you are dressed like a hayseed
With beard enough, and to spare.

You can not look like all of these.

Some certainly must be fakers.
I think they got you muddled up
With Uncle Hy and Al Acres.

I don't pretend to be a judge
In this conglomeration,
But if any one is Uncle Frank
They are surely no relation.

—By Paul Dewent, Hudsonville, Mich-
igan, R. 1.

LONESOMENESS.

When I am lonesome I like to write,
And when I am so I write half the
night.

It seems as if my heart would break,
In the night when I lay awake.
I'm lonesome, lonesome, all the while,
As lonesome as on the banks of the
Nile.

It matters not what sport I try,
I'm as lonesome as the wind that pass-
es by.

School Contest

SCHOOL activities are amon
the great interests of most all
young folks. Some like school;
others don't. Many think they
could get more good out of school
if it were run differently. I would
like your ideas about school, so
this week the contest will be on
What is the Matter with School?
Please tell me in 200 words or
less, just what you think about
school, whether you like it or
not. The ten best papers will
get the usual prizes pencil box-
es, clutch pencils and maps, and
all good papers will be netitled
to a Merry Circle button.

Send your letter to Uncle
Frank, Michigan Farmer, Detroit,
Michigan.

And just because I'm so young is the
reason why
I'm as lonesome as the wind that pass-
es by.

—By a Lonesome Girl.

THE MICHIGAN FARMER.

Oh, here's to the Michigan Farmer,
The paper we hold so dear.
With all it's fun and humor, it comes,
Fifty-two times in a year.

We take the Michigan Farmer,
And we take the Breeders' Gazette,
But of all the Michigan papers we take,
I haven't got tired of it yet.

Now, take, for instance, "Al Acres,"
That's written by Frank R. Leet,
Or "Hy Syckle," funny anecdotes,
I'll tell you, they're hard to beat.

I always read the story now,
By Courtney Ryley Cooper,
And the way it ended up today,
It's going to be a "hooper."

There's "Our Boys' and Girls' Depart-
ment,"

And the "Late Agricultural News,"
If we threw them in together,

'Twould be a sure cure for the blues.

So it's "hats off" to the Michigan
Farmer,

But it's the editors we'll have to
thank.

And it's now, I think, we'll start the
New Year,

With three cheers for Uncle Frank.

—By Rex Ellis, Reed City, Mich., R. 2.

THE PRIZE WINNERS.

THE poems above are the first six
prize winners. The writers of the
first two get Michigan Farmer pencil
boxes, the next three nickled pocket
pencils and the last a Michigan Farm-
er map of the world and new Europe.
We do not have space to run all ten
prize poems, so are appending here
the names of the other four winners:

Goldie Kleinhart, Detroit, Michigan.
Worth Taylor, Vermontville, Mich-
igan, R. 4.
Evelyn Stevens, Atkins, Michigan.
Elsie Gill, Kalkaska, Michigan, R. 1.

Michigan Farmer Club List

THESE PRICES SUBJECT TO CHANGE WITHOUT NOTICE

EXPLANATION:—Figures in the first column represent the regular prices
of other publications.

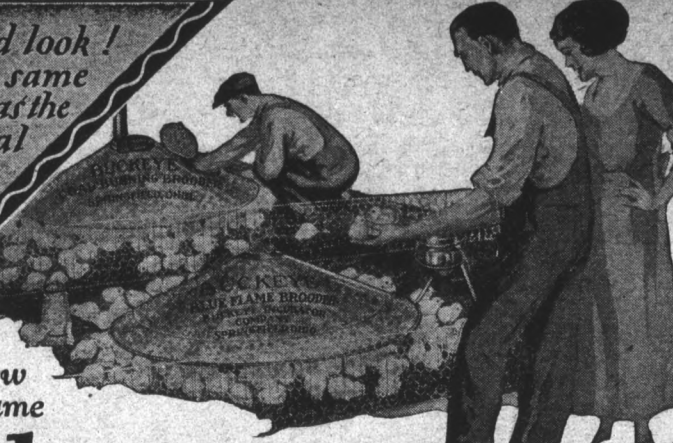
The figures in the second column give our prices for subscriptions to the
Michigan Farmer and the other publications for one year.

The figures in the third column give the prices at which other publications
can be added, if more than one is wanted in combination with Michigan Farmer.
EXAMPLE:—We will send the Michigan Farmer and Detroit Free Press each
one year for only \$4.50. If the same party wishes the McCall's Magazine, it will
cost 60c extra, or \$5.10 for this combination.

ABOUT DAILY PAPERS:—Our rates on daily papers are made for subscribers
living on R. F. D. routes, or in towns where the daily does not maintain regular
news boys or carrier service. If in doubt, send us your order, and we will have
it filled, if possible. Our rates on Michigan daily papers apply to the state of
Michigan only.

DAILY (6 a week)	1.	2	3	Poultry Keeper	50	1.25	30
Ann Arbor Times News.....	\$3.00	\$3.50	\$2.75	Poultry Success	1.00	1.50	60
Albion Evening Record.....	3.00	3.50	2.75	Poultry Tribune	1.00	1.50	60
Battle Creek Enquirer-News.....	4.00	4.50	3.75	Power Farming	1.00	1.00	50
Battle Creek Moon-Journal.....	4.00	4.50	3.75	Rabbit & Poultry Journal	.60	1.30	50
Big Rapids Pioneer.....	3.00	3.50	2.75	Reliable Poultry Journal	1.00	1.60	65
Bay City Times Tribune.....	4.00	4.50	3.75	Swine Breeders Journal	.50	1.25	35
Detroit Free Press.....	4.00	4.50	3.75	Swine World	1.00	1.50	60
Detroit News.....	4.00	4.50	3.75	Trotter & Pacer	3.00	3.00	2.25
Detroit Times.....	4.00	4.50	3.75	Tractor & Gas Engine Review	.50	1.25	35
Flint Journal.....	4.00	4.50	3.75				
Grand Rapids Press.....	4.00	4.50	3.75	HOUSEHOLD MAGAZINES, ETC.			
Grand Rapids Herald.....	4.00	4.50	3.75	Adventure	\$6.00	\$6.25	\$6.00
Grand Rapids News.....	4.00	4.50	3.75	Ainslie's Magazine	2.00	2.70	2.00
Jackson Citizens Patriot.....	4.00	4.50	3.75	All Outdoors	2.50	3.00	2.25
Jackson News.....	4.00	4.50	3.75	American Golfer	5.00	5.00	4.50
Kalamazoo Gazette.....	4.00	4.50	3.75	American Magazine	2.00	2.50	1.75
Lansing State Journal.....	4.00	4.50	3.75	American Boy	2.00	2.00	1.50
Lansing Capitol News.....	4.00	4.50	3.75	American Builder	1.50	2.00	1.25
Monroe News.....	3.00	3.50	2.75	American Cookery	1.50	2.00	1.25
Manistee News Advocate.....	5.00	5.00	4.75	American Magazine	2.50	3.00	2.50
Niles Daily Star.....	4.00	4.50	3.75	American Woman	.50	1.25	30
Owosso Argus-Press.....	4.00	4.50	3.75	Argosy—All Story Weekly	4.00	4.40	3.75
Pontiac Daily Press.....	3.00	3.50	2.75	Beautiful Womanhood	3.00	2.65	2.00
Port Huron Times Herald.....	4.00	4.50	3.75	Boy's Magazine	1.00	1.50	.50
Sault Ste. Marie Evening News.....	4.00	4.50	3.75	Boy's Life	2.00	2.35	1.50
Saginaw News Courier.....	4.00	4.50	3.75	Commonwealth	2.00	2.00	1.10
Traverse City Record Eagle.....	4.00	4.00	3.75	Century	5.00	5.00	4.50
Toledo Daily Blade.....	4.00	4.50	3.75	Christian Herald	2.00	2.00	1.50
Toledo News-Bee.....	4.00	4.50	3.75	Christian Standard	2.00	2.50	1.65
Toledo Times.....	4.00	4.50	3.75	Christian Endeavor World	2.00	2.75	1.85
Fort Wayne News Sentinel.....	4.00	4.50	3.75	Colliers Weekly	2.50	2.75	2.50
Fort Wayne Journal Gazette.....	4.00	4.50	3.75	Commoner (Bryan's)	1.00	1.50	.75
South Bend Tribune (7 days a week)	5.00	5.50	4.75	Country Life	5.00	5.00	4.50
Chicago Herald Examiner.....	6.00	6.25	5.75	Current Events	.60	1.50	.55
Chicago Daily Drovers Journal.....	5.00	6.00	5.00	Current Opinion	4.00	4.00	3.50
Chicago Tribune.....	7.50	7.50	7.00	Cosmopolitan	3.00	3.00	3.00
TRI-WEEKLY (3 a week)				Dearborn Independent (Ford's)	1.50	2.00	1.10
New York N. Y. World.....	1.00	1.60	.75	Delicatour	2.00	2.60	1.75
SEMI-WEEKLY (2 a week)				Designer and Woman's Magazine	1.50	2.15	1.25
Chelsea Tribune.....	2.00	2.50	1.75	Detective Story Magazine	6.00	6.40	5.50
Mason County Enterprise.....	2.00	2.50	1.75	Educational Review	3.00	3.50	2.75
WEEKLY				Etude	2.00	2.30	1.50
Albion Herald.....	1.50	2.25	1.50	Everybody's	2.50	3.00	2.25
Bellevue Gazette.....	1.50	2.25	1.50	Every Child	1.50	1.75	.75
Bloomfield Advance.....	1.50	2.25	1.50	Film Fun	2.00	2.40	1.50
Capper's Weekly.....	1.00	1.25	.50	Forest and Stream	3.00	3.00	2.50
Clinton Co. Republican.....	1.50	2.00	1.25	Gentlewoman	.20	1.10	.15
Chebaning Argus.....	1.75	2.50	1.75	Good Stories	.25	1.15	.15
Charlotte Leader.....	1.50	2.25	1.50	Good Housekeeping	2.50	2.50	2.50
Cedar Springs Liberal.....	1.50	2.25	1.50	Health Builder	3.00	3.00	2.25
Clare Courier.....	1.50	2.00	1.25	Household Magazine (Capper's)	.25	1.15	.15
Elk Rapids Progress.....	2.00	2.75	2.00	Harper's Bazaar	4.00	4.00	4.00
Galesburg Argus.....	1.50	2.25	1.50	Heart's Magazine	3.00	3.00	2.75
L'Anse au Loup.....	2.00	2.50	1.75	Hunter, Trader & Trapper	2.00	2.50	1.50
Lenox Standard.....	1.50	2.00	1.50	Independent	3.00	3.00	2.25
Lowell Ledger and Alto Solo.....	2.00	2.75	1.75	Illustrated World	3.00	3.25	2.75
Millington Herald.....	2.00	2.50	1.75	Judges Weekly	5.00	5.00	4.50
Missaukee Republican.....	1.00	1.75	1.00	Junior Home Magazine	2.50	2.50	1.75
Munising News.....	2.50	3.00	2.25	Love Story	6.00	6.40	5.50
Manitoulin Tribune Record.....	2.00	2.50	1.75	Life	5.00	5.25	4.75
Noble Co. Ind. Democrat.....	1.50	2.00	1.25	Literary Digest	4.00	4.00	3.90
Portland Observer.....	1.50	2.00	1.25	Little Folks Magazine	2.00	2.00	1.60
St. Johns News.....	1.50	2.00	1.25	McCall's Magazine	1.00	1.50	.60
Sault Ste. Marie News and U. S. Farm Journal	1.50	2.00	1.25	McClure's Magazine	3.00	3.00	2.50
Sauvage County Republican.....	1.50	2.25	1.50	Metropolitan	3.00	3.00	2.75
South Lyons Herald.....	1.50	2.00	1.25	Modern Fiction	2.00	2.00	1.50
Toledo Weekly Blade.....	.75	1.40	.60	Mother's Magazine	.25	1.15	.15
Ypsilanti Record.....	1.00	1.50	.75	Motor Magazine	4.00	4.00	4.00
CATTLE, SHEEP, SWINE, POULTRY, ETC.				Motor Boating	3.00	3.00	3.00
American Bee Journal.....	\$1.50	\$2.00	\$1.25	Munsey's Magazine	3.00	3.75	2.75
American Canary Journal.....	2.00	2.50	1.75	National Brain Power	3.00	3.00	2.25
American Fruit Grower.....	.50	1.25	.25	National Sportsman	1.00	1.50	.60
American Swineherd.....	1.00	1.50	.65	Outdoor Life	2.00	2.50	1.75
American Sheep Breeder.....	1.00	1.50	.65	Ohio Teacher	1.00	1.90	1.00
American Poultry Advocate.....	1.00	1.50	.60	Outing	3.00	3.25	2.50
American Thresherman.....	1.00	1.50	.65	Outlook	5.00	5.25	4.50
American Herford Journal.....	1.00	1.75	.85	Outer's Recreation	2.50	2.50	2.00
Breeders' Gazette.....	1.00	1.50	.60	People's Story Magazine	4.00	4.50	3.75
Bee Keeper's Review.....	1.00	1.75	.85	Pathfinder	1.00	1.50	.60
Chester White Journal.....	1.00	1.60	.70	People's Home Journal	1.25	1.75	.85
Capper's Farmer.....	.50	1.25	.25	People's Popular Monthly	.35	1.20	.20
Cloverland Magazine.....	1.00	1.50	.75	Picture Play	2.00	2.70	1.75
Iowa Corn Belt Farmer.....	.50	1.25	.30	Popular Magazine	4.00	4.50	3.75
Everybody's Poultry Magazine.....	.75	1.40	.60	Popular Science Monthly	2.50	3.00	2.25
Farm Mechanics.....	1.00	1.50	.75	Presbyterian Banner	2.50	3.00	2.25
Fruit Belt.....	.50	1.25	.25	Pictorial Review	1.50	1.75	.85
Game Breeder.....	2.00	2.00	1.25	Physical Culture	3.00	3.00	2.25
Garden Magazine.....	3.00	3.00	3.00	Review of Reviews	4.00	3.50	3.00
Cleanings in Bee Culture.....	1.00	1.85	.90	Radio Broadcast	3.00	3.00	2.50
Gumseys Breeder's Journal.....	2.00	2.60	1.75	St. Nicholas	4.00	4.25	3.50
Holstein-Friesian Register.....	1.00	1.50	.70	School World	.50	1.25	.35
Hoards Dairyman.....	1.00	1.75	.85	Scientific American	4.00	4.25	3.75
International Plymouth Rock.....	.50	1.25	.30	Scribner's Magazine	4.00	3.75	50
Inland Poultry Journal.....	1.00	1.50	.60	Short Stories	2.00	5.00	1.75
Jersey Bulletin and Dairy World.....	2.00	2.60	1.75	Success Magazine	2.50	2.50	2.00
Market Growers Journal.....	1.50	1.75	1.00	Today's Housewife	1.00	1.50	.60
O. I. C. Swine Breeders Guide.....	.50	1.25	.30	True Story	3.00	3.00	2.25
Pet Stock Journal-Hares & Rabbits	1.00	1.65	.75	Travel	4.00	3.40	3.00
Potato Magazine.....	1.00	1.50	.60	Tupnoch	3.00	3.00	2.75
Poultry Guide.....	.50	1.25	.30	U. S. Presbyterian	2.50	2.25	2.25
Modern Poultry Breeder.....	.50	1.25	.25	Violinist	2.00	2.25	1.50
Poultry Item.....	1.00	1.50	.60	Western Story Magazine	6.00	6.40	5.50
Poultry Keeper.....	.50	1.25	.30	Woman's Home Companion	1.50	2.25	1.25
Poultry Success.....	1.00	1.50	.60	Woman's World	.50	1.50	.35
Poultry Tribune.....	1.00	1.50	.60	World's Work	4.00	4.00	3.75
Power Farming.....	1.00	1.60	.50	World and Work	1.00	1.60	.75
Rabbit & Poultry Journal.....	.60	1.30	.30	World's Work	2.00	2.80	2.00
Reliable Poultry Journal.....	1.00	1.60	.65	World's Companion	2.50	3.00	2.00
Swine Breeders Journal.....	.50	1.25	.35				
Swine World.....	1.00	1.50	.60				
Trotter & Pacer.....	3.00	3.00	2.25				
Tractor & Gas Engine Review.....	.50	1.25	.35				

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Box G, Marion, Ohio

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Best Paying, Heavy Laying, Pure Bred Tom Barron English White Leghorns, Rhode Island Reds, Park's Barred Rocks. Strong healthy chicks from State Inspected and Approved Stock. Order now at new low prices. Instructive catalog FREE.

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Eggs! Eggs! All Winter!

13 Eggs a Day from 15 Hens. Miss Wright Tells How.

"Late in October, our 15 old hens were not laying at all. I started giving them Don Sung, and for ten days they still didn't lay. But on the eleventh day, they laid 13 eggs, and it is wonderful what Don Sung has done for our egg basket through the fall, winter and spring. There never was another tonic like Don Sung."—Miss Dama Wright, Verona, Ore.

A \$1 package of Don Sung lasts 15 hens 90 days. The extra eggs for just a few days paid Miss Wright for her Don Sung. The rest was clear profit. You may not believe that hens can lay well all winter. Neither did Miss Wright until she accepted our offer. It's open to you—here it is:

Give Don Sung to 15 hens. Then watch results for 30 days. If it doesn't show you a big increase in eggs, if it doesn't pay for itself and pay you a good profit besides, tell us and your money will be promptly refunded.

Don Sung (Chinese for egg laying) acts directly on the egg-laying organs, and is beneficial in every way. It makes hens healthy and happy. They scratch and sing. Pullets develop earlier. The whole flock lays regularly in any season, in any weather, when eggs are scarce and high.

Can you afford to ignore the wonderful reports you are hearing from Don Sung users everywhere? Why not let us show you the same results, with your own flock? Don Sung is no trouble to use. It costs nothing to try. All we ask is a chance to prove our claims, entirely at our risk. Get Don Sung from your local dealer, or send 50 cents for package by mail prepaid (large size, \$1, holds three times as much).

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Early Hatches Bring BIGGER PROFITS

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KLONDIKE Incubators are carefully built of selected materials. Equipped with famous Klondike System of heating, including Klondike thermostat, the most accurate heat regulator known, they positively assure you the largest possible hatches of strong vigorous chicks.

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30 Days Trial

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Made of California Redwood—last a lifetime. Positively the best value on the market today. Order the size you want direct from this ad. 30 days trial—money back if not pleased. If not ready to order now, don't buy until you get our new 1923 catalog.

WISCONSIN INCUBATOR CO., Dept. 116 Racine, Wis.

Poultry

SMALL FRUIT AND POULTRY.

RED raspberries furnish a dense shade on the poultry range where young stock are growing. They also furnish a hiding place when hawks appear. The berries are borne high enough in the foliage so that few will be taken by young chickens. Blackberries are borne out where the poultry can see them and will often be pecked. They do not make as good shade as raspberries. Currants and gooseberries will usually be all picked off while still very small and green.

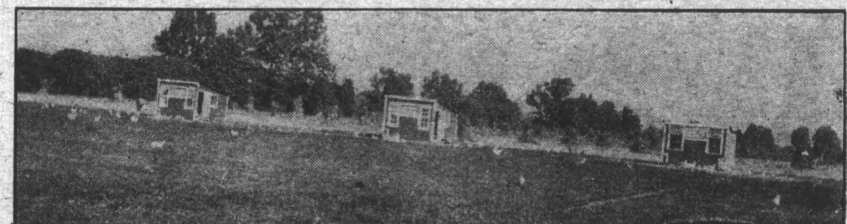
In small poultry yards plums seem to be the most satisfactory tree fruit. Select varieties that grow near to the ground and prune them so the lower limbs will remain for shade. Growing

oats and beef scrap. The amount of meat scrap can be reduced one-half if the hens have plenty of sour milk.

The scratch grain should always be fed in litter to induce exercise. One of the best ways to stop feather eating is to turn the flock out on range where they will hunt and scratch and forget each other. If you have no time to mix mash it will pay to use the commercial mashes generally sold by feed stores or elevators.

WILL SELL "APPROVED" CHICKS.

At a recent meeting the Michigan Bay Chick Association decided to change the term used in connection with the certified flocks from which they get their eggs. Instead of using



The Farm of E. E. Wang, Van Buren County, is Ideal for Poultry Raising.

poultry will not fly into the trees enough to injure the fruit seriously but they will pick up curculio and other insects that may injure the fruit.

Peach trees need a lot of cultivation and spraying and are not as good as plums in the poultry yards. Apples grow slowly and when mature they may be too large for small yards. They need a lot of spraying and trees too near poultry houses cannot be sprayed thoroughly without spotting up the houses with the spray dope. A large apple orchard in sod is a fine range for poultry as it will furnish both shade and green food and be a little less windy than an open field range.

The combination of fruit and poultry cannot be made on a large scale unless there is plenty of labor available. Both are jobs for specialists when carried on intensively. But a small amount of fruit on the poultry farm proves good for the poultry and may prove a profitable sideline if properly managed.—Kirby.

TURKEY'S HEAD SWELLS.

Our turkeys have the swelled head. It begins between the bill and the eye and swells slowly and turns bluish. We had an old turkey which has had it ever since May; it is getting worse and the young turkeys are also getting it.—R. B.

The swelling on the turkey's head should be opened and drained and the wound washed with a disinfectant. Treatment in such cases is similar to roup in chickens. Rubbing the bird's head with camphorated vaseline may help to reduce the swelling and assist in healing.

FEATHER-EATING HABIT.

My poultry pick the feathers off one another, and they don't do well. I feed corn once a day and wheat once a day. Some of the hens lose control of their legs and in time get so they can't walk, and then die.—T. S.

Hens eat feathers because of a lack of something in their ration which they crave and it is also due to idleness and a lack of exercise while in winter quarters. The leg weakness is probably due to errors in feeding. A balanced mash should be used. It can consist of equal parts by weight of bran, middlings, ground corn, ground

the word "certified" they will use the word "approved."

As this is the first year that the members of this association have made an effort to put a better grade of chickens on the market, they have decided it would be better not to call their products "state certified" until the Michigan Agricultural College could furnish the necessary inspectors and culling experts to do the work.

Each flock owner and hatcher has culled his own birds this year on the 120-egg minimum basis. The college has one man now in the field checking up on this work and "approving" the flocks which meet this standard.

Hatching from eggs which come from hens having a 120-egg per year average, will do much to increase the production of the farm flocks throughout the state, as the average state production, according to Prof. E. C. Foreman, is now only between sixty and seventy eggs per year.

HOUSE FOR 500 HENS.

Will you please give me full dimensions of a coop that would be convenient for 500 hens, also the size of the park?—C. D. H.

A house twenty feet deep and 100 feet long will give you a floor area of 2,000 square feet. That will give four square feet for each of the 500 hens. You do not state the breed of hens. The heavier breeds require a little more room than Leghorns but four square feet per bird is generally considered about right by practical poultrymen.

If you build a shed-roof house you can have it four feet high in the rear and eight feet in front. A half span house can be four feet in the rear, six in front and eight or nine at the highest point. I believe a house 100 feet long should be divided into five sections, each twenty feet wide. These sectional divisions can be boarded from floor to roof to stop draughts. The entire house can be open in summer if the birds range in one flock. In the winter the house will be warmer and more free from draughts if the doors from one section to another are all closed.

The M. A. C. Experiment Station, East Lansing, are sending out plans of a laying-house which they recommend highly and you might write them for a copy. You can also obtain valuable

pointers by visiting with poultrymen who have good houses. I should want about four or five acres for a range for 500 hens.

RAISING PEKIN DUCKS.

At what temperature should an incubator be for hatching duck eggs? Is there any profit in raising thoroughbred White Pekin ducks? How often should ducks be fed and what kind of feed?—A. K.

One hundred and two degrees is the temperature recommended for duck eggs in an incubator. The White Pekin ducks are very popular and considered one of the most profitable breeds. However, duck raising requires some skill and plenty of feed and the amount of profit in any individual case cannot be estimated.

A good ration for laying ducks consists of equal parts bran and corn meal to which is added twenty per cent low grade flour. Then add about one-quarter green food and ten per cent beef scrap with a sprinkling of oyster shells and grit. During the laying season the ducks might be given three feeds a day, while at other seasons two feeds would be sufficient. The manner of feeding will depend somewhat on the size of the range and its condition. If ducks have water and marsh land on which to graze they will gather a great deal of their feed at certain seasons.

AVIAN TUBERCULOSIS.

Quite a number of our hens have died during the summer. They grow very thin and poor, some are lame at first. I cut two of them open and found the livers spotted. Is it tuberculosis? Is there anything I can do to protect the flock, except killing the sick hens? Is there any danger in eating hens from the same flock who seem well?—M. P.

The symptoms indicate tuberculosis in the flock. It will be best to kill and burn all sick birds as the disease may spread rapidly. Hens from the same flock that are in good healthy condition are undoubtedly fit for food. This can be definitely determined by examining the condition of the internal organs.

When a small flock is suffering constant losses from tuberculosis it is usually best to kill them all. Those that are all right can be used for meat. Then a new start can be made after the premises have been thoroughly cleaned and disinfected. If the flock is large and valuable I think it pays to consult a veterinarian and have him make a personal inspection and then make recommendations.

There is no cure for avian tuberculosis and it must be controlled by prevention and sanitation.

BREED COMPARISONS.

How do Plymouth Rocks, Wyandottes and Orpingtons compare as layers for the entire year? Is there any difference other than color between different kinds of the same breed? For instance, are the Silver Laced Wyandottes as good, or better, than the White Wyandottes? Does either one of these breeds bear confinement better than the others? What are the standard weights for these breeds? Is there another breed you would consider better than either of these to keep in town? If so, why?—H. A. H.

It is difficult to compare Plymouth Rocks, Wyandottes and Orpingtons as layers for the entire year. All of the breeds mentioned are considered good winter layers under the proper management. Trapnest records and laying contests prove that it is the quality of the individual birds within a breed rather than the breed, that may determine whether a hen is a good layer or not.

I do not believe that the color of the plumage of a hen influences the egg production or the flavor and quality of the meat. Of course, hens with black feathers do not usually look quite as

nice dressed for market as a white feathered bird. Whether Silver Laced Wyandottes are as good or better than White Wyandottes would probably depend on the care and culling and skillful breeding that were given the individual flocks in question.

I do not think any one of the breeds mentioned would bear confinement better than the others. Again, the success with either breed on a limited area would depend more on the system of management than the name of the breed.

Plymouth Rocks have a standard weight of nine and one-half pounds for cocks; seven and one-half pounds for hens; eight pounds for cockerels, and six pounds for pullets.

Wyandottes have a standard weight of eight and one-half pounds for cocks; six and one-half pounds for hens; seven and one-half pounds for cockerels, and five and one-half pounds for the pullets.

Orpingtons have a standard weight of ten pounds for cocks; eight pounds for hens; eight and one-half pounds for cockerels, and seven pounds for the pullets.

Some like Rhode Island Reds or Leghorns better than the above mentioned breeds. Others like the Rocks, Wyandottes or Orpingtons best. I have never been able to find proof that any special breed is superior for a town flock. The quality of the individuals is more important than the breed. The heavier breeds are easier to confine and keep out of neighbors' gardens than the lighter breeds.

COLD IN EYES.

My chickens have a disease which causes their eyes to swell when cold weather comes and will stay by them until spring. Their eyes get so sore that a foamy pus comes in the eye. It is hard for them to see. I never saw any pullets with it.—A. A. B.

The chickens have colds which may be caused by damp or dusty litter, exposure to dampness and cold, or lack of a balanced ration. Lice and mites devitalize hens and make them more susceptible to colds. Colds spread rapidly through a flock by means of the drinking water. Color the water with potassium permanganate as a preventive. Give the sick birds individual treatment. Remove the mucus from the nostrils with tissue paper. Rub the nostrils and head of each sick bird with camphorated vaseline. Hens that recover may be all right for a long time but sometimes chronic colds of long standing are difficult to cure and such hens may develop roup. By using clean litter and a dry poultry house try and keep the flock as vigorous as possible. Then there will be less trouble from the colds and the prevention is more satisfactory than the cure.

HENS WITH ROUP.

I wish to know what disease my hens have. Their head swells all around the eyes until the eyes are closed entirely. Pretty soon they die. Will you give a remedy? It seems to attack healthy hens. They have their mouths open and can hardly breathe.—J. E. C.

The symptoms indicate severe cases of roup. It will probably be best to kill the hens in the worst condition. It may pay to treat the others. Roup should be controlled by prevention, which means preventing colds or curing any simple colds before they reach the roup stage.

Dampness or draughts in the poultry house cause roup. Isolate the sick birds. Remove as much of the accumulations in the nostrils as possible. Rub the head of the sick hen with camphorated vaseline. A coal tar disinfectant is useful in treating, and especially preventing roup. The success with most roup cures depends on treating the bird with a cold and curing the cold before the devitalized condition of the hen makes a cure impossible.

Get Winter Eggs!

See to it that there is song and cackle, scratch and action, going on in your poultry yard.

That's when the eggs come.

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Nux Vomica is what does it—that greatest of all nerve tonics. A Pan-a-ce-a hen can't hold still. It's her good feeling that makes her hop around.

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No dormant egg organs when that combination gets to work on a hen's system. You just get eggs—eggs.

A Pan-a-ce-a hen is always a hungry hen—an industrious hen. She gets off the roost winter mornings, ready to scratch for her breakfast.

Tell your dealer how many hens you have. There's a right-size package for every flock.
100 hens, the 12-lb. pkg. 200 hens, the 25-lb. pail
60 hens, the 5-lb. pkg. 500 hens, the 100-lb. drum
For fewer hens, there is a smaller package.

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64 BREEDS Most Profitable chickens, ducks, turkeys and geese. Choice, pure-bred northern raised. Fowls, eggs, incubators at reduced prices. America's great poultry farm. 36th year. Valuable new 100-page book and catalog free. R. F. NEUBERT Co., Box 614, Mankato, Minn.

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Barron English White Leghorns, Brown Leghorns, and Anconas.

Purchase this year's crop of chicks from tested layers, headed by large vigorous 260 to 288 Pedigreed Males.

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Larger hens, better winter layers. Send for free catalog full of information. A. W. WAUCHEK, Gobleville, Mich.

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Michigan's Greatest Color and Egg Strain. A flock average of 24 eggs per hen is reported by Mr. Jay B. Deutch, Big Bay, Mich., for the month of January, 1922. We will give 100 Grade "A" chicks to the customer who will beat this record. Write Whittaker's Reds during January, 1923. Write for particulars, also prices of chicks and eggs for next season. Our hatchery is small, we produce QUALITY not QUANTITY, so order early to avoid disappointment.

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Hardy free range stock—a Pure Breed. Practical Poultry especially adapted to the farmer poultryman: stock that has proved of exceptional practical value on Michigan farms.

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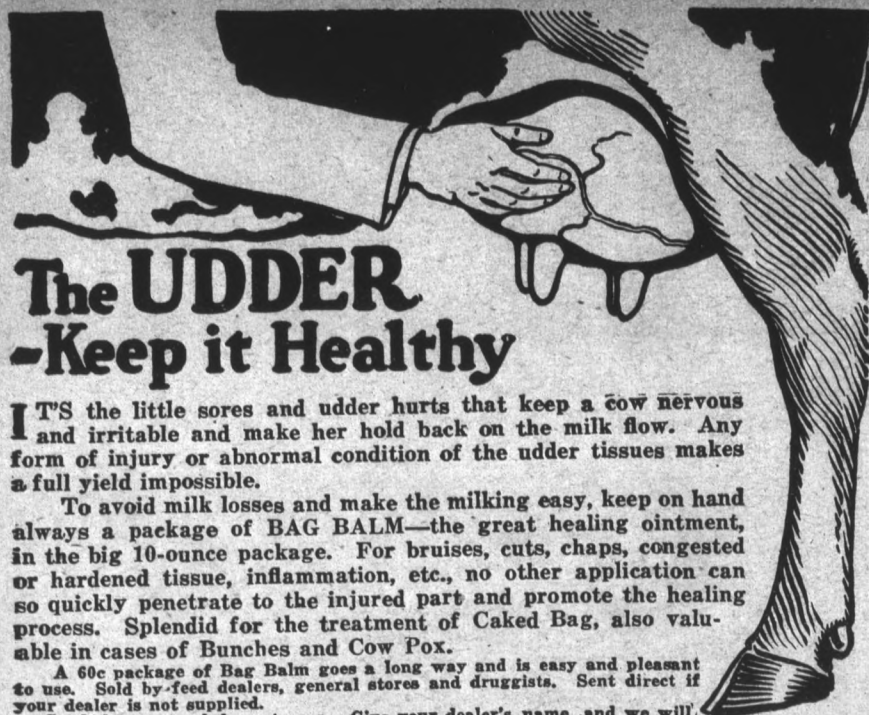
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Barred Rocks egg contest winners, eggs from s rain with records to 290 a year. \$2.00 per setting prepaid by P. P. Circular free. FRED ASTLING, Constantine, Mich.

Additional Poultry Ads. on Page 63



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IT'S the little sores and udder hurts that keep a cow nervous and irritable and make her hold back on the milk flow. Any form of injury or abnormal condition of the udder tissues makes a full yield impossible.

To avoid milk losses and make the milking easy, keep on hand always a package of BAG BALM—the great healing ointment, in the big 10-ounce package. For bruises, cuts, chaps, congested or hardened tissue, inflammation, etc., no other application can so quickly penetrate to the injured part and promote the healing process. Splendid for the treatment of Caked Bag, also valuable in cases of Bunches and Cow Pox.

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Ten Ounce
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solve the troublesome fence problem and do away with expensive repair bills. America's intelligent farmers unanimously approve of this epoch making fence development. Write today for free illustrated catalog No. A. CARBO STEEL PRODUCTS COMPANY, Morgan Park, Chicago, Ill.

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Dairy Farming

The First of Its Kind

America's Oldest Cow-Testing Ass'n Continues to Run on High

STILL going it strong—that is the latest report from the man in charge of the oldest cow-testing association in America. Hoyt D. Shisler, who operates the Babcock tester and advises the members of this Newaygo Association about feeding, has just given us some interesting items regarding the past season's work. Here is what he said:

The association has had a successful year. The first three months were disheartening, but through the untiring efforts and cooperation of County Agent Taylor, it was possible to put the work across in a strong way. The records are from twenty-one carefully managed and well-fed herds, comprising a total of 205 cows, which have run for the full year.

The highest honors from the associ-

ated when only twenty-two months old. A thousand dollars looks mighty small to "Doc" compared to her. Can you blame him?

Alfred Nelson's herd is the highest testing herd in the association. It consists of three registered Jerseys and three grades. He has an average of 5,816 pounds of milk and 312 pounds of fat.

Herman Zerlant's cow No. 2 might be considered the most profitable cow, returning \$2.79 for every dollar spent. But "Old Millie" is high cow, making a clear prout of \$145.

Raymond Kempf spent \$102.90 for feed on "No. 2," the second best cow in the association. This was the highest feed bill for any one cow. His whole herd brought in the largest gross income, or \$1,960.81, carrying a profit of



Here is the World's Record Grade Cow. She Produced 20,932 Pounds of Milk and 1,022 Pounds of Butter in One Year.

ation goes to Raymond Kempf, of Fremont, and his herd of eleven registered Holsteins. Mr. Kempf has justly earned all the praise that can be given to him. He has earned it because he has given time and study to the big game, "Dairying." He has always been a member of the cow-testing association; has used great care in selecting the sires and the dams of his cows to be. He, also, is a very careful feeder, and his cows are never in the want of attention. For this he gets in return an average of 12,404 pounds of milk, 416.3 pounds of butter-fat, or 520.3 pounds of butter, and has an average return of \$1.79 for every dollar expended for feed, and he spent \$960.81.

The high cow awards are again given to "Old Millie," the grade Guernsey (fifty per cent Durham and fifty per cent Guernsey), who has stood the test, and for the fourth time been the high cow in this association. At the age of twelve making 549.7 pounds of butter-fat, which is more than she ever gave before. She is under the tutelage of Herman Zerlant, her owner, who has been like a daddy to her. He gave her the best of grain, and milked her with a milking machine. She gave him \$224.55 worth of butter-fat and only charged him \$84.66. Kind old thing, isn't she? And twelve years old, too. Most always they get pretty stingy at that age.

We hope to give all the credit due to Fairy Maid's Golden. She is a two-year-old heifer owned by the Black & Neiusma Stock Farm. This heifer has made 463.7 pounds of fat in nine months at a cost of \$47.20. She fresh-

\$881.57. Hermon Zerlaut's herd yielded a gross income of \$1,833.12, out of which he has a profit of \$916.87.

The total income from 136 cows was \$15,415.96, or an average of \$113.35 per cow. The profit above feed cost was \$53.87 per cow. The profit included in the gross income of the members was \$7,325.96.

BREAKING HEIFERS TO MILK.

ABOUT a month ago I got hold of a "long" two-year-old Durham heifer. She had never been handled, not even tied in a stable since she was a calf, and consequently was as wild as a hawk. About two weeks ago she came fresh, and now I am milking and handling her as nicely as any old cow I have. My method of handling her, which is my usual way, may be of interest if not of help to some of your readers.

The first night we had her, it took my father and I a long time to drive her into the barn, and still longer to get her into a stanchion. Then we began feeding and petting and fussing with her, so that by the time she freshened we could handle her without her showing excessive nervousness or fear.

When I began milking her I fastened her legs, using a "rig" I have used nearly ever since I began farming. I take a quarter strap from a single harness, putting a snap in where it fastens to the breeching ring, buckling it back with an ordinary "joint" bridle bit in the loop, made by this buckling. The holes in the strap enable me to adjust the strap as to length, as is required

by the size and degree of "meanness" swinging stanchions, allowing three of the cow.

To apply I put the heifer in a stanchel. Then taking the strap by the snap end I put it around the left hind leg, just above the gambrel joint, from behind forward, on the outside, slip the snap through the ring of the bit which is fast in the strap; then crossing the strap so as to bring the snap again from the rear to the front on the outside of the right leg, I snap it into the free ring of the bit. Then pushing the right leg back as far as it will go, I sit down and begin milking, avoiding all roughness and milking rather slowly for a few times.

This "rig" when properly applied makes a modified "handcuff tie" and not only prevents kicking, but also raising a foot over three or four inches from the floor. It is very easily and quickly applied and can in no way injure the heifer. By standing very closely to the heifer's right flank there is little or no chance of their hurting me; in fact, the only danger is of their falling over on me in case they try to kick, and that danger is negligible. The strap, including snap and bit, should be from thirty to thirty-six inches long, the smaller or "meaner" the cow the shorter. A snap with the tongue broken out, leaving a hook, works as well as a perfect snap and is a little easier to fasten and unfasten.

I have used this method a great number of times, and it has always been successful.—C. A. Wagner, Calhoun County.

POTATOES AS COW FEED DOUBLE PRODUCTION.

If one cannot get thirty cents per bushel for his potatoes right on the farm, he can get this sum by feeding them to good cows while butter-fat is around fifty cents per pound, is the assertion of A. R. Sattler, secretary of the Lake Ann Cooperative Association.

"We have about 2,200 bushels of the best spuds we ever raised on our farm," said Mr. Sattler. "The present price would net us about eighteen cents per bushel, and as it is worth ten cents per bushel to haul them to the warehouse, we concluded to feed them. We fed about a half bushel a day to each milk cow. The third feed we noticed the difference in the milk and in ten days the production of milk increased fifty per cent.

"We sliced the potatoes raw and fed with salt. I believe potatoes cooked and mixed with grain will net thirty cents per bushel right on the farm with butter-fat at fifty cents. We are feeding 250 bushels a month and will feed all of them unless we can get forty cents per bushel, net, later on."—Mills.

CREAMERIES PRODUCE 60,000,000 POUNDS OF BUTTER IN 1922.

MICHIGAN is gradually strengthening its claim to be a dairy state, as an estimate of the butter production in 1922 exceeds any previous year, the figures reaching 60,000,000 pounds. In 1919 the Wolverine state produced about 45,207,000 pounds of butter; in 1920, 45,404,000 pounds, while in 1921 the production of the creameries jumped to 55,011,000 pounds. The estimate for the last year indicate about 5,000,000 pounds increase over 1921.—M.

KEEPING COWS CLEAN IN WINTER.

I STABLE my cows the year around; that is, I stable them at night during the summer, the same as in winter. I do not have a great deal of trouble with unclean cows, and I ascribe this to my well arranged stable and the use of plenty of dry straw as an absorbent. My cow stable has a cement floor with an eight by eighteen inch gutter behind the cows. I tie my cows with

swinging stanchions, allowing three feet four inches to each animal. I like the swinging stanchions as they give the cows plenty of liberty, yet they are properly held to keep them clean.

To keep cows clean during the winter while confined to the stable, each cow must fit her stall, that is, the platform upon which she stands must be adjusted to the length of the cow so the droppings will fall into the gutter. If the platform is a little too short, the cow will stand in the gutter and, when feeding, will step upon the platform and keep it dirty. On the other hand, if the platform is a little too long, she will drop her manure on the edge of the gutter and become soiled while lying down. The platform on which the cows stand should be the proper length so that the cows may stand comfortably.

I consider the use of plenty of dry absorbent an essential factor in keeping cows clean during the winter months. I know of nothing equal to barn-stored, or well-stacked, straw. I bed my cows well, but I do not over-bed them. Too much straw in the gutters is nearly as bad as not enough.

Stables should be cleaned at least twice daily. I practice cleaning my stable morning and evening. By so doing, I materially increase my manure output, besides keeps my stable in a wholesome, sanitary condition. With liquid-tight gutters behind the cows I am able to conserve all the liquid manure from my stable. During winter dry straw takes up all this liquid manure and I find it an easy matter to get it upon the land.—Leo C. Reynolds.

QUOTATIONS ON PURE-BRED DAIRY CATTLE.

BELOW are given price quotations on dairy cattle for the week ending December 30, reported from bids, offers and sales in Waukesha county, Wisconsin, by the Pure-bred Board of Trade. The demand is active for good stock, one car of Holstein grades averaging \$112; 1 car Guernsey grades averaged \$110@120 per head. Market shows an advance in Holstein grades of \$1@5 per head.

Holstein Pure-bred.—Springing cows, good breeding, at \$180@300; A. R. O. breeding, \$206@500; special bred A. R. O. cows, \$500; heifer calves, \$55@200; yearling bulls, \$75@200; special bred six months to one year, \$210 and up.

Holstein Grades.—Backward springers, \$65@115; thin and backward, \$62@102; two-year-old springers, \$78@136; bred yearlings, \$63@111; unbred yearlings, \$55@64; calves \$31@55.

Guernsey Pure-bred.—Springing cows of good breeding, \$200@350; A. R. O. breeding, \$250@500; special bred A. R. O. cows, \$500 and up; bred two-year-olds, \$175@400; yearling heifers, \$125@250; heifer calves, \$100@150; yearling bulls, \$75@200; special bred, six months to one year, \$200 and up.

Guernsey Grades.—Backward springers, \$110@130; thin and backward, \$100@110; two-year-old springers, \$75@125; bred yearlings, \$60@100; unbred yearlings, \$35@75; calves \$15@35.

Jersey Pure-bred.—Springing cows, good breeding \$200@350; A. R. O. breeding, \$250@500; special bred A. R. O. cows, \$500 and up; bred two-year-olds, \$175@400; yearling heifers, \$125@250; heifer calves, \$100@150; yearling bulls, \$75@200; special bred, six months to one year, \$200 and up.

Jersey Grades.—Backward springers, \$75@110; thin and backward, \$100@110; two-year-old springers, \$60@75; bred yearlings, \$60@100; unbred yearlings, \$35@75; calves, \$15@35.

Brown Swiss Pure-bred.—Springing cows, good breeding, \$177@300; A. R. O. breeding, \$205@500; bred two-year-olds, \$150@300; yearling heifers, \$77@205; heifer calves, \$50@150; yearling bulls, \$75@200.



These Three made a World's Record

Mr. R. R. Stevens, of Bowmanville, Ont., with the assistance of a De Laval Milker, just recently made a world's record with his purebred Holstein cow *Orndyke Pieterje Korndyke*, who produced 1,122.5 lbs. of butter and 24,119 lbs. of milk in 305 days. During the entire period she was milked with a De Laval Milker. Mr. Stevens says:

"While *Orndyke* is a wonderful animal and would make a splendid showing by hand milking, I can truthfully assert that the use of the De Laval Milker throughout this test has made it possible for her to show this wonderful production. I have been using the De Laval Milker exclusively for two years."

Mr. Stevens also has other champions in his remarkable herd, most notable of which are *Ormsby Jane*, junior two-year-old milk champion of Canada, and *Jane DeKol of Glen Rae*, senior two-year-old milk champion of Canada, both of which have never been milked in any other way but with a De Laval Milker. Mr. Stevens says:

"I am very proud and naturally much gratified over my success in producing these champion animals, but it is only right that I should give the De Laval Milking Machine its full dues as the most important agency in the development of these records. These facts are all beyond question and should settle the matter conclusively for those intelligent dairymen who are asking the question as to whether the De Laval Milking Machine will pay them."

Thousands of De Laval Milker users in all parts of the country and with all breeds of dairy cattle will subscribe to Mr. Stevens' statements, many of whom have also made splendid records.

You may not be interested in making production records but you certainly want to get the most milk from your cows, in the cleanest condition, at the least expense, and you can do this with a De Laval better than in any other way. Sold on easy terms so that it will pay for itself while you are using it.

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Sooner or later you will use a
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80 Acres, 3 Horses, 6 Cat. le Brood Sow, 60 Hens,

Ducks, geese, 100 bus. potatoes, 9 tons hay, ensilage for stock, corn in crib, 100 bushels oats, long list of farm tools, everything in readiness for new owner to step right in to start with good income; in the heart of prosperous farming section, on improved road, 5 railroad towns handy; 65 acres rich productive loamy tillage, 15 acres wood and pasture, wire fenced, stream watered; 2-story 8-room house painted, fine cellar, mail delivered, telephone available, milk and cream collected; 50 ft. barn ties 12 head, poultry house, granary, hog house, tool shed, cattle shed; owner's failing health forces him to retire and he sacrifices at \$4500 to quick buyer, \$2000 secures everything, balance very easy terms; quick possession. See MILTON S. HOPKINS, Coopersville, Mich.

\$1000 Secures Equipped Farm A Good Home; Handy Detroit

Prosperity all around, good neighbors, excellent markets, convenient transportation; 40 acres near live R. R. town; 30 acres heavy cropping fields, 10-cow stream-watered pasture, apple orchard, variety other fruit; good, easily kept, 2-story, 8-room house, barn, granary, garage, stable; to settle affairs \$4000 gets it; horses, cows, heifers, poultry, tools, crops included if taken soon. Only \$1000 needed and the rest easy. Details page 66 Big Illus. Catalog 1200 Bargains. Copy free. STROUT FARM AGENCY, 8140 Ford Bldg., Detroit, Mich.

GOOD HOME 40 acres, Allen County, 3 room house, small stables, never-failing well, on good auto road. Near town. School house on land. Price \$3,400; terms, \$500 down, balance on time. Great sacrifice. Possession March 1st. Address The Allen County Investment Co., Iola, Kans.

For Sale 122 A. Best of Soil

All in high state of cultivation, good building, 40 rod to school, 3 miles to Lansing finest location on good gravel road, 3 milk routes, mail route. \$150 per acre if sold soon. S. W. HEMPEL, R. 7, Lansing, Mich.

Eighty Acres clay and gravel loam soil in high state of cultivation all tillable except three acres of high class timber, good buildings & location close to school and church, also 80 A. of first class pasture land. For full description and price write owner. EDWARD SWADLING, North Branch, Mich.

For Sale Three farms 40, 80, and 120 acres, good soil and buildings on state road, one mile from town. FLOYD E. LOTT, Howell, Mich.

FOR SALE In the South, 210 acres rich land, 150 acres improved, modern 5-room house, 2 tenant houses, good barn, situated on Jackson Highway main thoroughfare of the South, 65 miles from Government Dam at Muscle Shoals, 2 miles from Summertown on L. & N. Railway. Excellent water, fine climate, no pests. Only \$65 per acre, terms. Address CHAS. McPHERSON, R. 2, Crestview, Tenn.

FOR SALE at a bargain 115 A. land in the famous lime land or alfalfa land of Ala. or will trade for small farm in Northern Ohio, Northern Indiana or Southern Michigan. will pay difference in cash up to \$6000 value. Price \$40 per acre address H. S. ALBIN, Lexington, Tenn.

Farm Catalog Just Out Free upon request. Describes many farm bargains in Southern New Jersey. Photos and map of State. Write today. VINELAND FARM AGENCY, 549 NN Landis Ave., Vineland, N.J.

Twenty Acres Orange Grove and truck land near Tampa, Florida. Fine home, market, all year crop season, ideal climate. Very reasonable price and terms. F. E. DAVIS, Suite 509 Monon Bldg., Chicago, Ill.

Poor Man's Chance \$5 down, \$5 months productive land near town. Some timber. Price \$225. Other bargains. Box 425-Z, Carthage, Mo.

80 Acres Improved \$65 per acre \$1000 proved \$87.50 per acre \$1000 cash. 160 acres improved. THE ALLEN COUNTY INVESTMENT CO., Iola, Kansas.

Farms Wanted Give full description and cash price. Quick sales. Leaderbrand Sales Agency, B-40, Oimarron, Kansas

If you want to buy, sell or exchange property, write Jerome Probst, Ann Arbor Mich.

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

We Have Cash Buyers for farms at real bargain prices. Describe fully. Central Land Bureau, New Franklin, Mo.

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

Wanted To hear from owner of land for sale O. K. HAWLEY, Baldwin, Wisconsin

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and other prizes. Such was the remarkable performance of our animals at the 1922 Michigan State Fair. What could be better proof of the unvarying quality of our animals or more representative of the ideal for which we have striven? Our success is the natural culmination of our efforts and our reward for years of careful and costly breeding. Ours is symbolic of the best. Mediocrity is not tolerated.

Our success can also be yours. Our young animals are the finest examples of breeding and will do much to improve your herd. Get the blood of the King of Sires **EDGAR OF DALMENY** into your herd and you will have individuality, distinction and quality. The services of our Grand Champion Stallion, **GEORGE HENRY** are available.

Your correspondence and inspection are invited.
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ORION, MICHIGAN
W. E. SCRIPPS, Prop. SIDNEY SMITH, Supt.

Registered Aberdeen-Angus cattle. Two bulls from eight to eleven months old. One a show bull, large and growthy. Priced reasonable. Inquire of F. J. WILBER, Clio, Mich.

FOR SALE, Several registered Aberdeen-Angus bulls and heifers of various ages. LANG BROS., Davison, Mich.

Registered Guernseys
Another crop of calves. Choice bull calves \$75, their breeding and records will please you. J. M. WILLIAMS, No. Adams, Mich.

Guernseys:—One fine 13 mo. old bull ready for service, and some good growthy bull calves 4 mo. old sired by a grandson of Imp. King of the May and from good producing dams. Clean herd. Priced moderately. MEADOW-GOLD GUERNSEY FARM, R. 8, St. Johns, Mich.

GUERNSEYS—REGISTERED BULL Calves. Containing blood of world champions. A. R. cows. Federal inspected. HICKS' GUERNSEY FARM, Saginaw, W.S. Mich.

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

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Guernsey Bulls ready for service. From Adv. Reg. cows. Accredited herd. Write for pedigree. Glen Clark, Eau Claire, Mich.

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FOR SALE Reg. Guernsey bull 12 mo., one 10 mo. old, 3 bull calves. JAY D. RUSSELL, R. 1, Gobles, Mich.

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

TRAVERSE CITY STATE HOSPITAL
Traverse City, Mich.

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

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All ages, from high-producing dams. Also a few registered and high-grade Holstein cows at farmers' prices. Pedigrees and prices upon request. A clean herd under Federal supervision. WHITNEY FARMS, Whitney, Mich.

For Sale King Segis Breeding

Nine months old bull, whose seven nearest dams average 27.72. This is the last of my nineteen of this age. The others are all sold.

Grand River Stock Farms

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FOR SALE Registered Holstein bull ready for service from good A. R. O. dams. Well grown, good individuals, nicely marked. Write for prices and pedigrees. Federal accredited herd. Geo. D. Clarke, R. 2, Ithaca, Mich.

\$50 a year gets daughter of Hazellet Idleaze. His two nearest dams average 36 lbs. butter 586 lb. milk 7 days, age 48 months. Herd Federal tested. M. L. McLAULIN, Redford, Mich.

REGISTERED HOLSTEINS
Young bulls that will please you in breeding, individuality and price. Some of them are very desirable for heading pure bred herds. Federally accredited. I. M. SHORMAN, Fowlerville, Mich.

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

HOLSTEIN bull calf, big stocky, dam by Pontiac-Korndyke Lad, sired by a 30 lb. bull, \$40. Satisfaction or money back. B. E. KIES, Hillsdale, Mich.

BUTTER BRED JERSEY BULLS
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Silver Creek, Allegan County, Michigan.

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

Lillie Farmstead Jerseys For sale, 3 heifers bred to freshen this fall, 2 bull calves, 6 to 9 mo. old. Colon O. Lillie, Coopersville, Mich.

Registered Jersey cattle young bulls, for sale. Herd accredited. J. L. CARTER, Lake Odessa, Mich.

JERSEYS Reg. young bulls and heifers, Majestic and Owl Interest strains. PARK LAKE FARM, Clarkston, Mich.

HEREFORDS

For Sale at Farmer's prices.
5 yearling bulls 8 yearling heifers
10 of the above sired by our \$5200 Repeater bull. We have others not related. This is an opportunity to start in good stock at a moderate price.

ALLEN BROS.

616 So. West St., Kalamazoo, Mich.

For Sale Hereford cows and heifers bred to and young bulls by Woodford 100th. LEARNED & SON, Hamilton, Ind.

Herefords For Sale

5-2 and 3 year old registered Polled heifers, with heifer calves by side, price \$150 to \$175 each. Also 2 bull calves born in April, price \$75 each.

COLE & GARDNER

Hudson, Mich.

Public Auction ON Jan. 23, 1923

3 miles east of Lennon, 2 miles north and 2 miles west of Swartz Creek or 9 miles west of Flint on Lennon road.

5 Polled Shorthorn cows and heifers; 5 Shorthorn cows and heifer and 1 Shorthorn bull. O. I. C. Hogs, 6 tried sows, 3 bred gilts, 3 open gilts, 6 fall sows and 6 fall boars.

Andy Adams, Auctioneer

Catalogue on Request.

Claxton Bros., & Dieck
Swartz Creek, Mich.

Milking Shorthorns priced reasonably. An accredited herd selected for beef and milk. Beland and Beland, Tecumseh, Michigan

FOR SALE

Polled Shorthorn Cows & Heifers

in calf and calf by side. Also a few young bulls. Herd headed by Victor Sultan and Royal Nonpareil.

We can please you in richly bred cattle with quality at farmers' prices.

GEORGE E. BURDICK, Mgr.

Branch County Farm, Coldwater, Mich.

Richland Shorthorns

Special offer on several bulls at Farmers' prices. Suitable for grading up purposes where beef is required. Also several high class herd headers of the best of breeding.

C. H. Prescott & Sons,

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

Central Mich. Shorthorn Breeders' Assn offer for sale both milk and beef breeding, all ages. Write M. E. MILLER, Sec'y, Greenville, Mich.

Milking Shorthorns Bull calves for sale. Also 2 cows. ROSEMARY FARMS, Williamston, Mich.

Clayton Unit Shorthorn Breeders' Assn. Scotch. Scotch Top and Milking Shorthorns for sale all ages. W. J. Hinkley, Sec'y, Flushing, Mich.

Shorthorn Bull for sale, white first prize winner, by Imported Sire. J. A. BARNUM, Union City, Mich.

Shorthorn Bull calf. Pure Scotch, and extra fine one. Ready for service. Photo Free. FRANK H. RUSSELL, Wakeman, Ohio

HOGS

Are You Short of Capital? Do you prefer extra good pure bred Berkshires to scrubs? Also buy of Talcoa Farm and pay with hogs. Spring boar of Royal Charmer, 10th and Matchless Lee 8th breeding. Fall pigs for spring delivery. Best of blood lines and conformation. TALCOA FARM, R. 7, Lansing, Mich.

Duroc Fall Yearling

and spring boars. Some real herd prospects sired by O. C. K. Col. 2nd. All Col. of Sangamo and Diamond Joe. Priced to sell. Fall pigs either sex. Write for description and prices. W. C. TAYLOR, Milan, Mich.

A Page for Live Stock Men

News Gleaned by Field Editor P. P. Pope

THE MONSTER.

A LONG about chore time the other evening I dropped in at the home of F. W. Alexander, of Vassar, to see "The Monster." Mr. and Mrs. Alexander had just returned from a trip to town but in their friendly manner made me more than welcome.

We went out to the boar pen to see "The Monster," and that is just what we saw. He is rightly named. A long, tall, high-backed, good-footed, big-boned, yearling came up to the fence to greet us in the same good natured kindly manner as did his keeper.

We went out to the new and modern hog house which is built on the Iowa sunlit style, with roof windows, hollow tile floors overlaid with a thin coat of concrete, and built the long way north and south. Those who are contemplating the building of a new hog house could study it with profit.

Here we saw some great brood sows, representatives of Iowa's best herds,

good dinner which the little lady of the house presented, played no small part in the pleasure of my visit.

A GOOD KICK-OFF.

OVER on the Midland side of the county line a few miles north of St. Louis lies the pleasant home and productive farm of Souley Brothers. Upon the shoulders of these young lads fell the burden of responsibility, which is inseparable from the operation of a goodly farm, when their father was called across the great divide some time ago.

That they are making good not only as farmers, but as live stock breeders and as business men, was ably demonstrated at their first stock sale recently held at the farm. They are to be commended upon the sportsmanlike way in which they conducted the event from first to last. Not a by bid, no bluster, not one bit of complaint. They sold around a dozen young Shorthorns at



Grand Champion Hereford Male and Female at the Recent Royal Live Stock Show at Kansas City.



and a choice lot of The Monster's daughters. Mr. Alexander is joining with a neighbor, F. L. Bodimer, who gets his mail at Reese, and whose herd is built up along the same blood lines, for a real Chester White hog sale which will be held on the Alexander farm on March 8.

WITH DORIS HOVER.

A KRON is a little town over in the Thumb district. It is not dead, but sleepeth. At least that is the impression it gives to the casual visitor. But it is surrounded by a farming section that is very much alive. After following a zig zag course for three or four miles northeast, we came upon a prosperous looking farmstead, where we arrived just in time to help Doris Hover and his visitors crate a big lusty spring boar and load him on the running-board.

We spent an hour looking over the excellent herd of pure-bred Poland Chinas that under the skillful management of Mr. Hover, has gradually replaced the herds of market stock. Mr. Hover may well feel proud of his accomplishments. He not only has some mighty good stock but he gives them good care. He has spared neither pains nor money in securing top notch herd sires, the latest acquisition being a winner of first in class at the State Fair, and a son of Feldkamp's grand champion, "Foxy Clansman." He drove out for our inspection as fine a bunch of big tried brood sows as we have seen in many a day, a dozen or more of them, and among a very attractive lot of spring gilts are several outstanding individuals of strictly up-to-date type.

Mr. Hover possesses both the qualities of a good feeder and a good breeder, which is a winning combination, and within the brick walls of his commodious home is the right sort of backing. You see, I happened around on a bitter cold day and just before dinner time, and the warm reception and the

prices that seemed a bit low, but that would surely bring satisfaction to the buyers, and a creditable lot of thirty odd Poland Chinas. The boys are young in the business but they are in it to stay and you will hear more of them in the future.

LAMB MARKET UNSETTLED.

AN unsettled draggy tone has been manifest in the lamb market recently. Receipts are light while the consumptive demand has been fairly satisfactory. On the other hand, trade scouts report that a liberal run for January is on the horizon. In the recent government's estimate of lambs on feed, an unusual percentage expressed an intention to market during January. It is known that many heavy lambs were placed on feed and since heavy fat lambs are being discriminated against, an early movement to market is logical. Colorado, which has an unusually large number on feed is already beginning to top out. These conditions may cause some setback in values in the next month or six weeks although higher prices later in the winter are altogether likely. The enthusiasm of feeders has received a decided check recently and the number of thin lambs going out from the twelve leading markets has declined more than fifty per cent in the last month and is only one-fifth of the volume at the season's high point.

Seven members of the National Association of Wool Manufacturers, composing the joint committee on research and standardization, visited the bureau of agricultural economics a few days ago, and after discussing the bureau's standardization program, unqualifiedly endorsed the proposed wool grades.

The folks of America are now using more butter than when prices were higher. In 1921 the per capita consumption was 16.1 pounds as compared with 14.7 pounds for the previous year, or an increase of nearly ten per cent.

WASHTENAW BREEDERS SELL
HOLSTEINS.

THE recent fifth annual consignment sale of eighty-three registered Holsteins of the Washtenaw county Holstein breeders, which was held at Ann Arbor Fair Grounds, was largely attended. The cattle sold were consigned from seventeen different breeders. The largest consignment was made by W. B. Hatch, of Ypsilanti, Michigan, who sold twenty-one females and ten males, practically dispersing his herd.

The highest priced female sold was Huron Hill Pontiac Johanna, a twenty-six pound cow, consigned by A. A. Snyder, of Belleville, Michigan, sold for \$270. The highest priced male sold was a calf, One Prince Pieter, who has a twenty-pound two-year-old dam, Tula Segis Pieter, and his sire is King Ona Champion, was consigned by R. B. Waltrous, "Friesland Farm," Chelsea, Michigan, and sold to Robert Garrod, of Milan, Michigan, for \$175. The average price per head was about \$100. A great many buyers were present, but not outside state buyers. The forenoon was taken up in selling males, those of serviceable age brought a fair price while the younger ones sold for less. The females were sold in the afternoon, which included a number of calves and yearlings and which accounts for the low average. The sale was under the management of Colonel Perry, of Columbus, Ohio, and assisted by Colonel Schresder, of Saline, and R. Austin Backus, of Mexico, New York, pedigree reader.—I. D.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Advice through this column is given free to our subscribers. Letters should state fully the history and symptoms of each case and give name and address of the writer. Initials only are published. When a reply by mail is requested the service becomes private practice and \$1 must be enclosed.

Sore Teat—Infected Udder.—I have a cow that has a sore teat, and besides her milk is thick and stringy. V. J. Dorr, Mich.—Give her a dessertspoonful of nitrate of potash at a dose in feed twice daily for ten days. Apply one part fluid extract of poke and five parts wool-fat to infected quarter daily, not forgetting the benefit of gentle hand-rubbing, the teat canal may require dilating, this can be done with smooth dull-pointed probe.

Contagious Abortion.—I have an eight-year-old cow that slipped her calf last year about six weeks before she was due to freshen. This year she slipped her calf three weeks too early. This is a good cow and I would like to keep her. She has had good care and seems to be healthy. J. M. S., Gumbask, Mich.—Doubtless she will carry her next calf the full gestation period. Clean and disinfect your cow stable, and if she has any vaginal discharge flush her daily, using a one per cent lysol solution until discharge ceases, then breed her.

Mechanical Lameness.—I have recently purchased a mare eight years old; she is stiff in one hind leg. Her stifle is enlarged but not inflamed; she also has bone spavin on same leg, but this has been killed. When standing in stable her heel is off the floor most of the time. I paid a low price for her believing she could be helped by treatment. What shall I apply? C. W., Brown City, Mich.—If you will apply one part iodine and ten parts fresh lard to bunch on stifle once daily it might help her. Her ailment is chronic, besides the lameness is mechanical.

Cow Fails to Come in Heat.—I have a ten-year-old cow that freshened July 1, and since then has failed to come in heat. Is there any remedy? M. E. W., St. Clair, Mich.—Give her one dram of fluid extract of nux vomica and two drams of ground capsicum at a dose in ground grain three times a day. You might obtain better results by giving Yohimbine; however, it is too expensive for cattle practice. If you have a fountain syringe, flush the vagina with warm water twice a day. This inexpensive treatment will have a good effect.

Auction Sale
OF
DUROC-JERSEY
SWINE40 Head of
Bred Sows and BoarsAT
Fair Grounds, Northville, Mich.
ON

WEDNESDAY, JANUARY 24, 1923

12:30 P. M. Sharp

From The Herds of
Thos. Underhill & Son,
Salem, Mich.and
Maple Hill Farms
Farmington, Mich.

Lloyd Lovewell, Auctioneer

HOGS

BROOKWATER DUROC JERSEYS

Ready for Service Boars

Sired by Panama Special 55th and Big Bone Giant Sensation.

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

Woodlawn Farm Duroc Hogs meet present day requirements, length, size and quality. Young stock for sale at reasonable prices and fully guaranteed. Write your wants. W. E. BARTLEY, Alma, Mich.

DUROC-JERSEYS Choice fall pigs and sows bred for Mar. and April farrow, priced right. RUSH BROS., Romeo, Mich.

Duroc spring boars, gilts, summer and fall pigs for sale. Reasonable prices and satisfaction guaranteed. Jesse Bliss & Son, Henderson, Mich.

DUROC-JERSEYS Do you want a good Pathfinder boar pig? E. D. HEYDENBERG, Wayland, Mich.

DUROC-JERSEYS Spring Boars for sale. CAREY U. EDMONDS, Hastings, Mich.

Durocs Prolific, big bone, best breeding, \$10 to \$15. Write for description. Satisfaction or money back. B. E. KIES, Hillsdale, Mich.

BIG TYPE CHESTER WHITES

The prize winner kind from the best prize winner bloodlines. Early developers, ready for market at six months old. I have started more breeders on the road to success than any man living. I want to place one hog in each community to advertise my herd. Write for agency and my plan. G. S. BENJAMIN, R. F. D. 10, Portland, Mich.

Chesters We are sold out of Boars. Choice of spring pigs, write WEBER BROS., Royal Oak, Mich., 10 mi. and Ridge Rds., Phone 408.

CHESTER WHITES Boars all sold. Bred sow sale March 8th. FRED L. BODMER, Reese, Mich.

Chester Whites. Choice spring gilts bred to Giant, 2nd prize boar at State Fair. Also fall gilts. LUCIAN HILL, Tekonsha, Mich.

Registered O. I. C. Boars J. CARL JEWETT, Mason, Mich.

O. I. C. 50 last spring pigs either sex not a kin. Big, growthy stock, recorded free, 1/2 mile west of Depot, Citrus, Phone. OTTO B. SCHULZE, Nashville, Mich.

O. I. C. & Chester White Swine strictly big type with quality. The kind that grow large. A few spring pigs either sex. Newman's Stock Farm, R. 4, Marlette, Mich.

O. I. C.'s Spring pigs. Pairs not a kin. Also July August and Sept. pigs. MILO H. PET. ERSON, Elmhurst Farm, Ionia, Mich. Citiz. Phone

O. I. C. 20 large growthy gilts farrow in Mar. also fall boar pigs. CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C. GILTS bred for April farrow at reasonable prices. C. J. THOMPSON, Rockford, Mich.

O. I. C.'s 10 sows bred for early spring litters. 17 sows open for fall breeding 1-10 mo. old. Extra good boar. Stock shipped on approval. FRED W. KENNEDY, R. 2, Plymouth, Mich.

Registered O. I. C. Boars H. W. MANN, Dansville, Mich.

O. I. C. Bred gilts and boars all sold. Am taking orders for fall and spring pigs. A. J. BARKER & SON, Belmont, Mich.

Spring Boars Now Ready To Ship H. O. SWARTZ, Schoolcraft, Mich.

L. T. Poland Chinas spring boars and sows at reasonable prices, also fall pigs either sex of popular blood lines. Aberdeen-Angus bulls, Heifers and Cows that are show winners. Write or come. E. A. CLARK, R. 3, St. Louis, Mich.

Lone Maple Farm L. T. P. C. March Boars and gilts ready. Prices reasonable, stock as represented. F. R. Davis & Son, R. 3, Belding, Mich.

Large Type Polands. Spring boars and gilts, sired by Michigan Liberator and Big Checkers. Immured by double treatment. Also fall pigs both sexes. George F. Aldrich, R. 6, Ionia, Michigan.

LARGE TYPE P. C.

Largest in Mich. Pig ready to ship, why not order from the herd that has given so many their start in the hog business, the kind that makes good, they have quality as well as size. W. E. LIVINGSTON, Parma, Mich.

LARGE TYPE POLANDCHINAS

Boars and gilts for sale from one of the best herds in Mich. Sired by E's Clansman Mich. 1921 Grand Champion. Alaska, M and W's Orange and Daddy Long Legs 2nd. Give us a visit and look them over if not write to N. F. BORNOR, Parma, Mich.

L. T. P. C.

Choice Gilts \$25 to \$40. Boars \$30. Fall Pigs \$15. HART AND CLINE, Address F. T. HART, St. Louis, Mich.

Francisco Farm Poland Chinas

Spring gilts sired by a grandson of National Grand Champion Sow and bred to a grandson of National Grand Champion boar. Now ready to ship. P. P. POPE, Mt. Pleasant, Mich.

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results under classified headings. Try it for want ads and for advertising miscellaneous articles for sale or exchange. Poultry advertising will be run in this department at classified rates, or in display columns at commercial rates. Rates 8 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 6 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order. Real estate and live stock advertising have separate departments and are not accepted as classified. Minimum charge, 10 words.

Rates in Effect October 7, 1922

Words	One time	Four times	Words	One time	Four times
11.....	\$0.88	\$2.40	26.....	\$2.08	\$6.24
12.....	.96	2.88	27.....	2.16	6.48
13.....	1.04	3.12	28.....	2.24	6.72
14.....	1.12	3.36	29.....	2.32	6.96
15.....	1.20	3.60	30.....	2.40	7.20
16.....	1.28	3.84	31.....	2.48	7.44
17.....	1.36	4.08	32.....	2.56	7.68
18.....	1.44	4.32	33.....	2.64	7.92
19.....	1.52	4.56	34.....	2.72	8.16
20.....	1.60	4.80	35.....	2.80	8.40
21.....	1.68	5.04	36.....	2.88	8.64
22.....	1.76	5.28	37.....	2.96	8.88
23.....	1.84	5.52	38.....	3.04	9.12
24.....	1.92	5.76	39.....	3.12	9.36
25.....	2.00	6.00	40.....	3.20	9.60
			41.....	3.28	9.84

Special Notice

All advertising copy discontinuance orders or change of copy intended for the Classified Department must reach this office ten days in advance of publication date.

MISCELLANEOUS

SILVER FOXES. We are making very special prices on fifteen twenty-two pups if bargained for now. Our stock is very best quality, all pedigreed and registered. Victory foxes are Good foxes. Buy now, pay later, save one-third. Volmar & Hughes, Muskegon, Michigan.

HOMESPUN TOBACCO. Smoking—5 lbs., \$1.25; 10 lbs., \$2.00; 20 lbs., \$3.50. Chewing—5 lbs., \$1.75; 10 lbs., \$3.00. Furnish free recipe for preparing. Send no money. Pay when received. O'Connor Smokehouse, Mayfield, Ky.

HOMESPUN SMOKING TOBACCO. Mild and mellow—10 lbs. \$1.75; 20 lbs. \$3.00; delivery guaranteed. We furnish free recipe for preparing. Smoking Tobacco Exchange, Sedalia, Kentucky.

HOMESPUN TOBACCO. Chewing: 5 pounds, \$1.75; 10 pounds, \$3.20; 20 pounds, \$5.50. Smoking: 5 pounds, \$1.25; 10 pounds, \$2.20; 20 pounds, \$3.50. Send no money, pay when received. Co-Operative Tobacco Growers, Paducah, Kentucky.

NATURAL LEAF TOBACCO. Chewing: 5 Pounds, \$1.75; 10 pounds, \$3.20; 20 pounds, \$5.50. Smoking: 5 Pounds, \$1.25; 10 pounds, \$2.20. Pay when received. Tobacco Growers' Union, Paducah, Ky.

KENTUCKY TOBACCO Three year old leaf. Pay for tobacco and postage when received. Chewing 5 lbs. \$1.65; smoking 10 lbs. \$1.50. Farmers' Grange, Dills, Hawesville, Ky.

INOCULATE your Alfalfa, Sweet Clover, Soy beans with best pure culture bacteria. Guaranteed. Bushel size postpaid 90c. E. E. Basil Sweet Clover Grower, Latty, Ohio.

FREE CATALOG Carpenter's Auction School. Largest in world. Terms. Opens soon. Tuition \$100. Hall Bldg., Kansas City, Missouri, and Atlanta, Georgia.

GERMAN Shepherd, Airedales, Collies; Old English Shepherd dogs; Puppies; 10c illustrated instructive list. W. R. Watson, Box 35, Macon, Mo.

FOR SALE—Registered American Bull Terriers and Collies—Hayneshurst Kennels, Jackson, Mich.

POULTRY

DON'T BUY CHICKS & HATCHING EGGS UNTIL you get our catalog and prices on Barred Rocks, White Leg, Anconas. Write today. Discount on early orders. Model Poultry Farm & Hatchery, R. 4, Zeeland, Mich.

BUFF ORPINGTONS, Barred Rocks, Young White Leghorns, Guineas. Illustrations. Fennor Bailey, Montgomery, Mich.

BIG BLACK LANGSHANS, heavy laying strain, prizes won at Monroe Co. poultry show, 1st pullet, 1st hen, 1st and 2nd pen. A few pens and cockerels for sale. Write for prices. Mrs. Ethel Burget, Maybee, Mich.

GET EVERGREEN POULTRY FARM'S cheap prices on pure bred poultry, chickens, turkeys, ducks, geese, guineas, baby chicks best laying strain. Illustrated catalog free. Evergreen Poultry Farm Hatcheries, Hampton, Iowa.

MANY VARIETIES pure bred poultry, baby chicks and pigeons at low prices. 100 page book in colors describes them. Mailed for 5 cents. Frank Foy, Box 9, Clinton, Iowa.

SILVER LACED and White Wyandotte Cockerels, \$3.00, two for \$5.00. Extra choice, \$5.00 each. Satisfaction Guaranteed. C. W. Browning, R. 2, Portland, Mich.

MICHIGAN'S Best Giant Bronze. Large vigorous birds from America's best strains. Both utility and fancy. Unrelated stock. N. Evelyn Ramsdell, Ionia, Mich.

GIANT BRONZE TURKEYS. Vigorous purebred stock. Best strains, large type, fine coloring. Unrelated stock. Write Mrs. Perry Stebbins, Saranac, Mich.

GESE—Toulouse, African, Emden. DUCKS—Pekin, Rouen, Runner, Muscovy. Price reasonable. John Hass, Bettendorf, Iowa.

MAMMOTH Pekin Ducks, White Wyandotte Cockerels, \$2.00. Choice laying Leghorn Hens, \$1.50. Liberty Smith, Caro, Mich.

RHODE ISLAND REDS, R. C. Large fancy cockerels and pullets at \$3 each. Bart Sisson, Imlay City, Mich.

Leonard's Big Type P. C. gilts sired by Leonard's Liberator and Orange Clansman and fall Pigs at bargain Prices. E. R. LEONARD, St. Louis, Mich.

Big Type P. C. some very choice boars double im- mane, out 1100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

Large Type Poland Chinas

Spring boars sired by Foxy Clansman 1922 Grand Champion and by F's Clansman 1920 Grand Champion Mich. State Fair. Also two choice 1921 fall boars. All immune by double treatment. Come and see them or write. A. A. FELDKAMP, Manchester, Mich.

Boars at Half Price From Mich. Pioneer herd of Big Type Poland Chinas We have been breeding them big for 30 years. Our boys represent the blood lines of Giant Buster, The Clansman, Liberator, The Yankee, Big Bob, etc. Write for what you want. JNO. C. BUTLER, Portland, Mich.

Choice Boars ready for service. Priced to sell. Also sows and gilts. O. E. GARNANT, Eaton Rapids, Mich.

Additional Stock Ads. on Page 31

68 VARIETIES Fine pure bred chickens, ducks, geese, turkeys, stock eggs, chicks. Large catalog 5c. A. A. ZIEMER, Austin, Minn.

SINGLE COMB Black Minorca Cockerels guaranteed \$4-\$10. Chas. Schook, Allenton, Mich.

200 GIANT S.C. Black Minorca cockerels none better \$2.25 each. Mike Schaefer, R. 1, Essexville, Mich.

BARRED ROCK Cockerels for sale. Henry Vickery, Fennville, Mich.

PEAFOWLS, Pheasants, Bantams, Pigeons, Guinea Figs. John Hass, Bettendorf, Iowa.

BABY CHICKS

CHICKS GUARANTEED—From certified improved money-makers. Stocks that are mated with Michigan Agricultural College cockerels. Barred Rocks, S. C. Anconas, White and Brown Leghorns, pullets and breeding cockerels. Safe arrival, postage paid, catalog free. Fairview Hatchery and Poultry Farms, Route 2, Zeeland, Mich.

CUSTOM HATCHING, four cents per egg. Ship us your eggs, chicks hatched and returned parcel post prepaid. Satisfactory hatch guaranteed. Now contracting space for spring hatching. Akron Hatchery, Akron, Mich.

QUALITY CHICKS AND EGGS—25,000 Standard Bred Breeders. 12 varieties. Best laying strains. Incubate 15,000 eggs daily. Catalog free. Reasonable prices. Free live delivery. Missouri Poultry Farms, Columbia, Mo.

WHITE LEGHORN CHICKS from pedigreed cockerels direct from Hollywood Farms, every breeder personally selected by Prof. Foreman of M. A. O. Quantity Limited. Quality the very best. Circular free. Maple Haven Farm, R. 5, Jackson, Mich.

BABY CHICKS—Barred Plymouth Rocks and S. C. White Leghorns. Send for catalogue. Snowflake Poultry Farm and Hatchery, Route 5, Middleville, Michigan.

BABY CHICKS bargain prices. Barred Rocks, White and Brown Leghorn. Guarantee full 100% alive, free delivery. Hillview Poultry Farm Hatchery, R. 12, Holland, Mich.

CHICKS—English strain S. C. White Leghorns that lay and pay. Order early. Write for free catalogue and price list. Honorbilt Farm & Hatchery, 145 S. Elm St., Zeeland, Mich.

BABY CHICKS from heavy egg producing strain. Barren and young S. C. W. Leghorns closely culled. 100% alive. Circular free. Montella Hatchery, Route 1, Holland, Mich.

SELECTED CHICKS from best strains at living prices. All popular varieties. First hatch in January Hatching eggs. Write for circular and price list. Litchfield Hatchery, Litchfield, Mich.

QUALITY CHICKS for delivery each week after March 1st. S. C. White and Brown Leghorns. 100% live delivery. Catalog free. Standard Hatchery, Box B, Zeeland, Mich.

STERLING QUALITY CHICKS from 14 Varieties. Pure Bred Certified Stock. Prices Right. P. F. Clardy, Mammoth Hatchery, Highland View Poultry Farm, Box 6, Ethel, Mo.

BABY CHICKS—Six leading varieties. Write your wants. Special prices on large, direct orders. Free catalog. H. H. Pierce, Jerome, Mich.

CHICKS: Low prices for pure bred stock. S. C. English Whites, Browns, Anconas and Barred Rocks Catalogue free. Free delivery. Bos. Hatchery, Zeeland, R. 2, Mich. (Formerly Fairview Hatchery).

CHICKS. From free range selected flocks bred to lay. All popular varieties. Prices right. Send for catalogue. 100% delivery guaranteed. Homer Hatchery, Homer, Michigan.

BABY CHICKS. Save \$3 to \$10 per 100 by placing order now. Pullets lay at 4 months age. Write for free catalog. D. T. Farrow Chickeries, Successors Farrow-Hirsh Company, Peoria, Illinois.

HELP WANTED

SALESMAN wanted in your locality, to sell and install one of the best lines of Pipeless and Pipe Furnaces made in Michigan. Now is the time to start a good paying business of your own. Farmers are selling our line, some have sold as many as 30 Furnaces in one season. Why not you do the same? In answering give full particulars as to yourself and present business, where located, name in full and post office address. All correspondence is confidential. Address to H. C. Murray, State Agent, 304 South Woodward Ave., Birmingham, Mich.

WANTED—Reliable man on 150 acre farm, 30 miles from Detroit. Must be capable of taking charge and going ahead with work as owner is away all day. Six registered Holsteins and three horses to take care of. Can use single man or married man if wife will assist with housework. All year round job. State wages wanted and experience. E. S. VanDakson, Salem, Mich.

EXPERIENCED farmer wanted. Must understand care of stock. Wife must understand butter making. Prefer family with son old enough to manage tractor. Farm is near Detroit. Apply by letter. Box C. B.—3, Michigan Farmer, stating experience and references.

WE PAY \$200 monthly salary and furnish rig and expenses to introduce our guaranteed poultry and stock powders. Bigler Company, X 685, Springfield, Illinois.

LATEST MARKET REPORTS

GRAIN QUOTATIONS

Tuesday, January 9.

Wheat.

Detroit.—No. 2 red \$1.34; No. 2 mixed \$1.32; No. 2 white \$1.32.

Chicago.—No. 2 hard \$1.19@1.20; December \$1.17½.

Toledo.—Cash \$1.34.

Corn.

Detroit.—Cash No. 2 at 75c; No. 3 yellow 74c.

Chicago.—No. 2 mixed 71¼@71½c; No. 2 yellow 72c.

Oats.

Detroit.—Cash No. 2 white 49½c; No. 3, 48c.

Chicago.—No. 2 white 43¼@45½c; No. 3 white, 43@43½c.

Beans.

Detroit.—Immediate and prompt shipment \$8.

Chicago.—Choice hand-picked Michigan beans \$8; red kidneys \$8.

Rye.

Detroit.—Cash No. 2, 90½c.

Chicago.—87¼c.

Seeds.

Detroit.—Prime red clover cash at \$13.40; March \$13.55; alsike at \$10.75; timothy \$3.40.

Toledo.—Prime red clover cash at \$13.40; alsike \$10.85; timothy, new, at \$3.30; old \$3.35.

Hay.

Detroit.—No. 1 timothy \$16.50@17; standard \$16@16.50; light mixed \$16@16.50; No. 2 timothy \$14@15; No. 1 clover \$14.50@15; rye straw \$11.50@12; wheat and oat straw \$11@11.50 per ton in carlots.

Feeds.

Bran \$34@34.50; standard middlings \$33@34; fine do at \$35; cracked corn \$35.50@36; coarse cornmeal \$34; chop \$29.50@30 per ton in 100-lb sacks.

Fruit.

Apples.—Jonathans \$4.50 per bbl; Wageners \$4; Greenings at \$4@4.50 per bbl; Kings at \$5@5.50; Northern Spies \$5; Baldwins \$4@4.50.

WHEAT

Most of the gains in wheat prices in the last month were erased last week. The sales of speculative holdings as a result of the political crisis abroad, heavy primary receipts and additional evidence that foreign countries will be unable to finance the purchase of their full estimated requirements were factors. Primary receipts of wheat have been running at practically a record pace for this time of year and two or three times as large as a year ago. In addition Argentine and Australian shipments are increasing. Even India with an excellent new crop prospect is selling more freely and Canadian wheat has had the attraction of being cheaper than our hard or red winters. The situation is not entirely one-sided, however, as Europe will continue to buy at least moderately, the southern hemisphere surplus is smaller than a year ago, a poor crop outlook in our southwest and other factors tempers views of lower prices. The break may have already touched bottom.

RYE

In the last six months about 35,000,000 bushels of rye have been cleared for export and the movement keeps up rather steadily. Germany bought about 4,000,000 bushels last week in spite of her depreciated currency.

CORN

In the last three weeks receipts of corn at primary markets were the largest on record for this period with one exception. Prices have declined along with wheat and the movement has subsided as growers are confident of higher prices later. Export demand has picked up again and average weekly clearances in the next six months of about 2,000,000 to 3,000,000 bushels from the United States appear probable in view of foreign needs.

OATS

Both eastern and southern distributing demand for oats have increased recently but prices lost ground along with wheat. Receipts have been surprisingly uniform from week to week in the last four months and are now

about twenty per cent above normal for this time of year. They are disappearing into consumption, however, and the visible supply is slowly melting away.

SEEDS

Clover seed prices advanced to the former season's high point early last week but lost the advance later. Receipts this season at Toledo, the principal market, have been about 25 per cent larger than last year. Timothy seed prices have changed but little for several weeks.

FEEDS

By-product feeds are not in keen demand at present while stocks in the hands of both manufacturers and dealers are liberal. Wheat feeds in transit are offered considerably cheaper than mill prices for future shipment. Flour mill operations have declined but little from the high point of the season.

HAY

Light receipts of hay have been diminished still more by the holidays. Demand is limited but timothy prices on the leading markets were steady to higher while alfalfa prices were firm.

EGGS & POULTRY

In spite of the supposed increase in poultry production, receipts of eggs at the four principal cities in the last five months of 1922 were lighter than in the corresponding period of 1921. This has made good prices for fresh eggs possible and helped work off storage eggs to advantage which will have some effect on next season's prices when eggs are going into storage. Prices have been erratic recently, advancing early last week only to slump sharply later on. Receipts in the new year are starting lighter than last year and consumption is at a high rate but the large storage stock and the seasonal increase in the lay will check further price advances.

Chicago.—Eggs, miscellaneous 38@40c; dirties 25@28c; checks 24@26c; fresh firsts 42c; ordinary firsts 36@38c. Live poultry, hens 21½c; springers 21-22c; roosters 14c; ducks 19c; geese 18c; turkeys 35c.

Detroit.—Eggs fresh candled and graded 43@46c; storage 26@28½c. Live poultry, heavy springers 23@25c; light springers 18@20c; heavy hens 25c; light hens 18@20c; roosters 16c; geese 20@22c; ducks 20@24c.

BUTTER

Butter prices at the leading eastern markets declined early last week but when a parity with Chicago was reached, a more stable tone became evident. Buyers have taken hold more freely since the first of the year but receipts are much heavier than a month ago and are running materially larger than last year even though production reports show no increase. As a result, daily drafts on cold storage stocks have been decidedly reduced in the last two weeks.

Prices on 92-score fresh butter were: Chicago 51c; New York 52½c. Fresh creamery in tubs sell in Detroit for 46@48c per pound.

POTATOES

The potato markets were generally steady last week. The holiday season curtailed shipments but the movement was about twenty per cent above the average for this time of year. The behavior of the market suggests an advance later on but it is slow to arrive. Northern whites are quoted mostly at 75c@1.10 per 100 pounds in middle-western markets.

APPLES

Apple shipments from producing sections were far above normal last week, especially boxed apples which weakened in price while the barreled

stock held steady although the barreled crop and barreled storage holdings were relatively heavier than boxed. Exports up to December 23 were 1,049,647 barrels and 1,869,964 boxes as compared with about 500,000 barrels last year. This year's exports also exceeded those of two years ago by about 60 per cent. British prices are quite attractive. New York Baldwins are quoted at \$4@5 per barrel in leading cities.

WOOL

Moderate expansion in the demand for wool from manufacturers was reported at eastern concentration points last week. Prices were firm at levels recently prevailing. Foreign wool markets also showed strength although no auctions were held during the holidays. Stocks of "Bawra" wools, or British Australian Wool Realization Association wools at the end of November were 940,894 bales, indicating that 949,494 bales had been disposed of during the previous eleven months, and suggesting that the balance of these Australian wools carried over from the war period will be disposed of within another year. Presumably holdings of free wools in Australia were no larger on November 30 than they were on the corresponding date a year ago. The situation in Australia is one piece of evidence that wool consumption is steadily gaining on production.

BEANS

Details of the government's final estimate upon the bean crop show that the Michigan returns were increased 305,000 bushels to a total of 4,809,000 bushels. The new York and Idaho estimates also were raised while California, Colorado and New Mexico all showed severe losses and the total crop was estimated at 11,893,000 bushels or 1,120,000 bushels less than in October. Since prices advanced during the usually dull holiday and inventory period and the crop is below the average, trade sentiment is mostly bullish.

DETROIT CITY MARKET

The demand was good for poultry, celery, cauliflower, apples and cabbage. Because of the cold weather potatoes are not in such great supply and are bringing better prices. Pumpkins, squash, carrots and onions are moving slowly. Apples are bringing 75c@80c; cauliflower \$2; celery 15@75c per dozen bunches; carrots 75c@1.25; eggs 65@70c; dry onions 1.25 per bu; potatoes 55@60c; poultry, live 25@32c; ducks 28c; geese 26c; squash \$2@2.50.

GRAND RAPIDS

The white bean market late last week and early this week again staged the unexpected by advancing during the last few days of the rush tax-paying season. Three advances in as many days carried prices up 30c per hundred weight. Most of the country elevators were paying from \$7.25@7.50 per cwt. Egg bids rebounded two cents a dozen to 38c, and live stock, especially lambs, were marked up fractionally to a whole cent. The potato market shows no improvement with the car shortage again restricting the movement. Poultry was quiet but the trade was getting set to handle more as the furniture season gets farther advanced and more buyers come into the city.

COMING LIVE STOCK SALES.

Shorthorns and O. I. C's.—January 23, Claxton Brothers & Diecks, Swartz Creek.

Chester Whites.—March 8, Alexander & Bodimer, Vassar.

Poland Chinas.—February 1, Doris Hover, Akron; February 17, Witt Bros., Adrian; February 27, J. E. Mygrants, St. Johns; February 28, Charles Wetzel & Sons, Ithaca; March 1, Archie Ward, Breckenridge.

Shorthorns and O. I. C's.—January 23, at 1:00 p. m., Claxton & Dieck, Swartz Creek.

Poland Chinas.—February 16, E. J. Mathewson, Burr Oak.

Duroc-Jersey.—January 24, Thos. Underhill & Son and Maple Hill Farms, at Fair Grounds, Northville.

Live Stock Market Service

Wednesday, January 10.

DETROIT

Cattle.

Receipts 360. Market strong.
Best steers \$ 8.75@ 9.25
Handyweight butchers .. 7.75@ 8.50
Mixed steers and heifers 6.50@ 7.25
Light butchers 6.00
Handy light butchers.... 6.00@ 6.75
Best cows 4.75@ 6.00
Butcher cows 3.50@ 4.50
Common cows 2.75@ 3.25
Canners 2.25@ 2.75
Choice bulls 5.00@ 6.00
Bologna bulls 4.50@ 5.25
Stock bulls 3.50@ 4.25
Feeders 6.00@ 6.75
Stockers 4.75@ 6.25
Milkers and springers... \$ 40@70.00

Veal Calves.

Receipts 610. Market steady to 50c lower.
Best \$ 14
Others 6.00@13.00

Sheep and Lambs.

Receipts 2,470. Market steady.
Best lambs \$14.50@14.75
Fair lambs 12.50@13.25
Culls and common 2.50@ 4.00
Light to common 9.00@11.25
Fair to good sheep..... 6.50@ 8.00
Yearlings 10.00@13.25

Hogs.

Receipts 2,980. Market is 5@10c lower.
Mixed hogs \$ 8.75
Pigs 8.90
Stags 4.50@ 5.00
Roughs 7.35
Heavies 8.00@ 8.35

CHICAGO

Hogs.

Estimated receipts today are 31,000; holdover 24,432. Market slow and 10@15c lower. Bulk of sales \$8.25@8.55; tops \$8.65; heavy 250 lbs up \$8.30@8.40; medium 200 to 250 lbs \$8.35@8.65; light 150 to 200 lbs \$8.50@8.65; light lights 130 to 150 lbs \$8.45@8.65; heavy packing sows 250 lbs up \$7.60@8; packing sows 200 lbs up at \$7.25@7.65; pigs 130 lbs down \$7.75@8.45.

Cattle.

Estimated receipts today are 7,000. Market is strong and 15@25c higher.

Beef steers medium and heavy weight 1100 lbs up \$11.50@12.75; do medium and good \$8.15@11.50; do common at \$6.50@8.15; light weight 1100 lbs down \$9.85@12.25; do common and medium at \$6.25@9.85; butcher cattle heifers \$4.55@10.50; cows \$3.55@8; bulls bologna and beef \$4.25@6.65; canners and cutters cows and heifers \$2.75@3.85; do canner steers at \$3.50@4.50; veal calves light and handyweight at \$9.25@11.25; feeder steers \$6@7.85; stocker steers at \$4.50@7.85; stocker cows and heifers \$3.50@5.50.

Sheep and Lambs.

Estimated receipts today at 14,000. Market steady. Lambs 84 lbs down \$13@15; do culls and common \$9.50@13; spring lambs \$9.25@13; ewes \$5@8.75; ewes cull and common \$3.50@6; yearling wethers \$12.75@14.75.

BUFFALO

Cattle.

Receipts five cars. Market steady. Choice to prime shipping steers, 1,400 pounds and up at \$9.50@10; good to choice shipping steers \$8.50@9; heavy, fat medium quality \$7.50@8; medium to good \$7@7.25; light native yearlings, fancy quality \$10@10.50; medium to good \$8.25@9.25; best handy steers \$7.50@8; plain at \$6.50@7.25; heavy steers and heifers at \$6.75@7; western heifers \$6@6.50; light Michigan butchering heifers \$6.50@7; best fat \$5.50@6.25; medium to good \$3.75@4.50; cutters \$2.50@3.25; canners good weight \$1.75@2.25; common and old rims \$1@1.50; best heavy bulls \$5.50@6; heavy bologna bulls at \$4.75@5.25; common bulls \$4@4.50; best feeders 700 to 800 lbs at \$6.50@7.25; medium feeders \$6@6.50; stockers good \$5.50@6; light common \$5@5.50; best milkers and springers \$60@80; common and medium \$35@45.

Calves. Market steady at \$14.50.

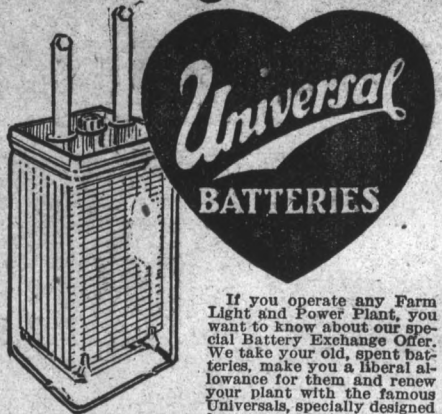
Hogs.

Receipts 35 cars. Market steady. Heavy \$9.15; yorkers and pigs \$9.50.

Sheep and Lambs.

Receipts seven cars. Market strong. Top lambs \$15.75; yearlings \$12@13; wethers \$9@9.50; ewes \$7@8.50.

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worth of common kerosene or coal oil will keep this Sunray lamp in operation for 30 hours. Produces 300 candle power of the purest, whitest and best light known to science. Nothing to wear, simple, safe; 15 Days' Trial

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As a special introductory offer, we will give you a 300 Candle Power Sunray Lantern FREE with the first purchase of a Sunray Lamp. Lights up the yard or barn like a search light. Write today for full information and agency proposition.

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25¢

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THE MICHIGAN EGG-LAYING CONTEST.

THE latest report of the egg-laying contest at M. A. C. shows a Leghorn pen still in the lead but the White Wyandottes follow with a close second. The Leghorns belonging to J. H. Hanson, of Corvallis, Oregon, have the high total of 346 eggs, while the White Wyandottes belonging to the Evergreen Poultry Farm, of Greenville, Mich., come next with 337 eggs.

The pen of Leghorns belonging to E. D. Shaw, of South Haven, which have been leading the contest until the past week has slipped to third place with a total of 329 eggs. Tied for fourth place are the Plymouth Rocks belonging to H. E. Dennison, of East Lansing, and W. H. P. Kent, of Cazenovia, New York, each having a total of 312 eggs.

Among the Rhode Island Red pens that belong to O. L. Dunning, of Delton, Mich., and that belonging to Mrs. E. S. Travis, of Vicksburg, Mich., are tied for first place with 207 hens. The high pen of Anconas belong to A. R. Van Ralte, of Zeeland, Mich., with 193 eggs.

For the week the White Wyandottes led in production when they attained an average of 41.9 eggs for the week. The Barred Rocks showed an average of 38.8 and the Anconas made a sensational increase of nearly one-fifth per cent in the week by producing an average of 23.2. The high pen of the week was the White Wyandottes belonging to the Evergreen Poultry Farms, which produced fifty-one eggs.

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Michigan's Old Reliable Hatchery

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Chicks sent by Insured Parcel Post Prepaid to your door. 100% live delivery guaranteed. Fifteen years of experience in producing and shipping chicks has given absolute satisfaction to thousands. Write for illustrated free catalog and price list. Get lowest price on best quality chicks before you buy.

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World's Famous Layers.

Flocks culled by poultry experts and headed by vigorous pedigreed males. Silver Ward Chicks will start you right. Let us book your order now. Fine, Illustrated CATALOG Free. Write today.

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Strong, sturdy, S. C. White Leghorns (English Strain) from large, vigorous, yearling Hens, raised on our own farms, that Lay and Pay. Barred Rocks and Rhode Island Reds from best laying strain. Send for our illustrated catalog, free.

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Bred to lay from carefully mated Flocks, of standard Quality and for Egg Production. We offer you exceptional values in the breeds, Leghorns, Rocks, Reds, W. Wyandottes, Orpingtons, Minorcas and Anconas. Our prices are right when Quality is in consideration. This should be the main point in view. For success, get our Big Catalog of Chicks and Brooders, we have a special offer for you, also how to care for your chicks after you have them. It is Free.

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Rural Chicks

from EXTRA SELECTED S. C. ENGLISH STRAIN White Leghorns, Brown Leghorns, and Anconas. BUY DIRECT from our large rural poultry institution allowed on all orders booked now. ACT QUICKLY. Ask for our free, valuable catalog and attractive prices. Our chicks are shipped postpaid and we guarantee satisfaction and 100% live delivery.

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ENGLISH type White Leghorns, Brown Leghorns. From wonderful layers. 11 years of breeding for egg production. Breeders headed by large vigorous males from high record hens. Large combed deep bodied type. You will be proud to own a flock of these Leghorns. Live delivery guaranteed. Illustrated catalog free. Write today.

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Baby Chicks

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Hatching eggs, \$1.50 per setting to \$15.00 per 100. We are raising 17 varieties of pure bred fowls, Chickens, Geese, Ducks & Guineaes, also breeding stock. Send for prices and circular. Booking now for early delivery. **CLINTON HATCHERY & POULTRY FARM**, Wilmington, Ohio.

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Order Your Baby Chicks Today

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Attention, Northern Michigan Breeders!

S. C. White Leghorns

Eggs \$1.00 per 15, \$6.00 per 100. Orders filled as booked. High fertility and satisfaction guaranteed.

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Cockerels \$5.00 each. Price winning laying strain.

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