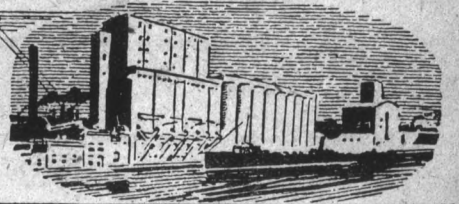


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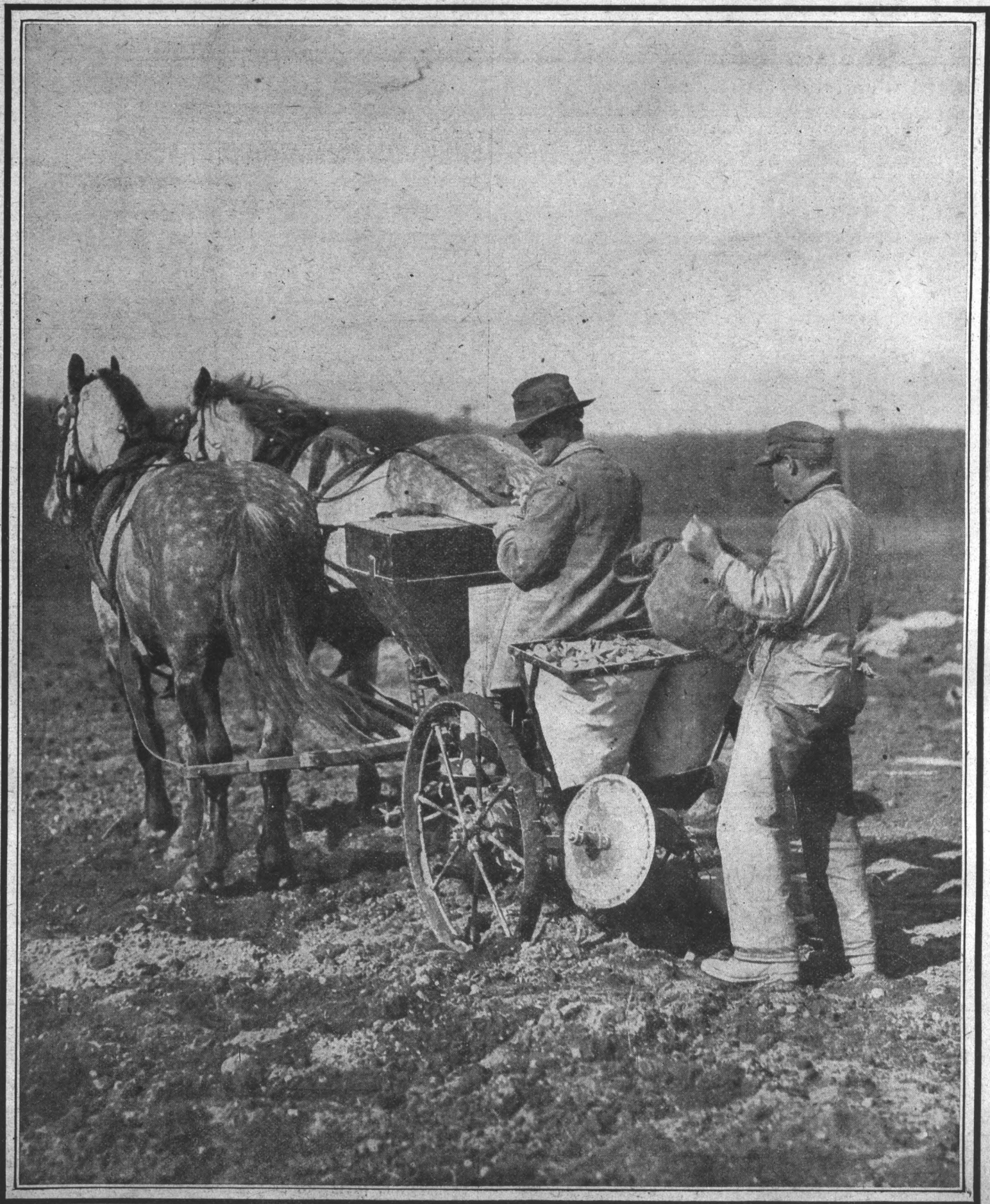
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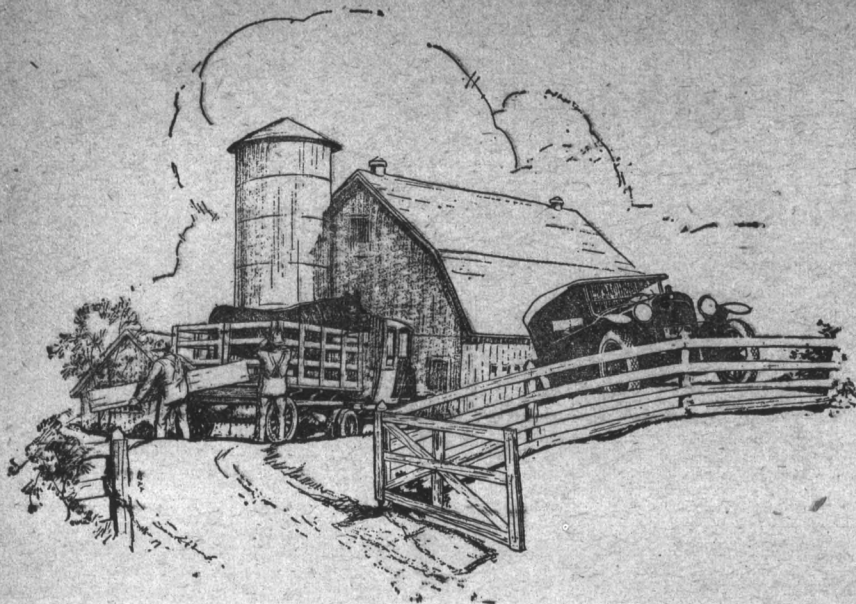
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In this issue read: "Legislature Closes Session in War-Like Array"—Senator Couzens Urges that Michigan's Cut-Over Lands be Reforested, and in a Special Message to Readers of the Business Farmer He Discusses Reforestation Possibilities in Michigan



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Current Agricultural News

INCREASED BEAN PRODUCTION SOUGHT

MICHIGAN elevator companies are taking part in a nationwide campaign to increase the acreage and production of beans in every state to such an extent that the domestic market will not be dependent on foreign grown stock at any time of the year, it was announced today at the state headquarters of the Michigan Elevator Exchange.

The movement was started in the New England states, it is said, and is rapidly being taken up all over the country. It is not to increase the home-consumption of dry beans, the exchange authorities claim, but to make pork-and-beans a national dish in place of corned beef and cabbage.

If enough beans can be produced to care for the normal consumption demands in this country, the shippers claim, the farmers will still be able to get a fair price for his crop and be assured of disposing of all he raises. It is up to the farmer to make his crop the predominating one on his own market, it is said, and to increase production to the point where the foreign producers can not compete in this country.

MASON DAIRYMEN START TESTING

MASON dairymen organized the third Ingham County Cow Testing Association, at a meeting held in Mason week before last. Twenty-six of the leading dairymen of the Mason vicinity joined in the association.

A tester is to be employed who will spend one day a month on one farm of each member, obtaining milk weights, feed weights, and a butter fat test on each individual cow. It is expected that these records will form a basis of judgment as to the producing quality of the cow, and that the undesirable and unprofitable cow may be eliminated from the herds. Better feeding methods will be practiced, it is claimed, through the efforts of the association.

Mason-Ingham Cow Testing Association is the fortieth association to be organized in the state. Ten new organizations are expected to organize in the near future which will bring the Michigan total to fifty.

PLAN DRIVE ON MILK DEALERS NOT LICENSED

PROSECUTION of all milk dealers in Michigan who have not procured their state license is on the program of the dairy department of the state department of agriculture, according to an announcement of T. H. Broughton, head of the dairy activities. It is the hope of the department that all 2,700 dealers will be reached before the end of the fiscal year June 30.

Most of the large dealers in the state have obtained the licenses necessary, according to Mr. Broughton, but there are a number of one-man wagons for which licenses have not been issued, and it is to these that the department is turning its attention. The erring dairymen first is given an opportunity to comply with the law, and prosecution is the last resort. Seventeen prosecutions were started during April, according to the records turned into the office here. In the same time but two prosecutions were started for watering milk.

The state also revoked the license of one tester, who was detected giving incorrect readings at one of the cream buying stations.

MICHIGAN LIVE STOCK EXCHANGE PAYS DIVIDEND

LOCAL associations of the Michigan Live Stock Exchange will receive during May a patronage dividend of about \$7,000 which the Exchange is paying to associations which have patronized the Live Stock Exchange's Cooperative House at the Detroit stockyards during the past year. The dividend is a savings and represents a refund to member patrons of 10% of all commissions paid to the Exchange for sales service.

The Michigan Exchange establish-

ed a cooperative commission house at the Detroit yards May 1, 1922. Since then the association has handled 4,129 carloads of stock out of 12,616 sent to market of 30.5% of the total business. The business handled by the Detroit Cooperative Commission House the first year shows a net savings of \$17,500, which is a savings of about 25% of the commissions paid for service. The Live Stock Exchange charges the regular commissions. The Exchange voted to return 10% of all commissions paid to members or \$7,000. The remainder gives the Live Stock Exchange Commission House a reserve fund on which to do business. It also belongs to the members.

The Live Stock Exchange is the second Michigan community marketing exchange to declare a patronage dividend within the past month. Last week the Michigan Elevator Exchange paid its member associations a patronage dividend of \$8,000. The Michigan Potato Growers Exchange has been paying patronage dividends for some time past. The foregoing commodity exchanges are affiliated with the Michigan State Farm Bureau.

CURWOOD BUILDS HIS OWN CASTLE

James Oliver Curwood, Owosso author and naturalist, who is building a studio after the fifteenth century type of castle, has purchased an acre of land across the Shiawassee river from his studio and will set out a miniature forest of pines, firs, balsams and spruce.

FARM BUREAU HANDLES MORE SEED FOR 1923

Nearly twice as much certified seed has been handled by the state farm bureau this year as was sold in 1922, it is said, while the amount of certified seed potatoes has increased about 400 per cent over a year ago.

START COLLECTION OF EATON WOOL

The 1923 wool pool of the Michigan State Farm Bureau started assembling of wool for the season at Eaton Rapids on April 30th. A flat advance of 25 cents per pound is made at the time of pooling, with final settlement when pool is sold.

HURON FARM BUREAU SEEKS NEW MEMBERS

"Every Huron farmer a member," is the keynote of the County Farm Bureau Association drive to open July 16. Alfred Bentaal of the state organization outlined the work of the campaign in a talk before the board of directors at their monthly meeting last week. Extensive demonstrations in ditch blasting, stump and stone blowing, using picric acid, will be started by the association soon.

INTERNATIONAL EGG LAYING CONTEST AT M. A. C.

The week ending May 1 completes the first half of the contest and a considerable increase in production is evident. The weeks total reached 3,609 eggs and the total production to date is 71,954. All groups registered an increase, the White Leghorns leading with 61.0%, Anconas second with 54.0%, Barred Rocks third with 46%, Rhode Island Reds, with 43.0%, miscellaneous with 38.0%, White Wyandottes with 29.0%.

Michigan State Highway Department Bulletin No. 46, May 1, 1923

Gravel and macadam roads in the southern part of the state are now in a softened condition and may be easily injured by heavily loaded trucks and busses. To avoid undue damage to these roads county road commissioners have been asked to put forth every effort to protect the roads until they become more settled and safe for normal traffic. The maximum carrying capacity of tires on all vehicles traveling these roads while the frost is coming out of the ground shall be limited to one-half the carrying capacity of the tires as provided by law; and in no case shall a vehicle be operated on the highways when the gross weight exceeds seven and one-half tons.

SATURDAY
MAY 12th,
1922

VOL. X. NO. 19

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Legislature Closes Session in War-Like Array

Governor's Veto of Gasoline Tax Brings Retaliation from House so Weight Tax Loses—Senate then Refuses Byrum Income Tax and Possibility of Extra Session Looms

By STANLEY M. POWELL

THE settlement of many issues during the closing hours of the session brought a fitting climax to what one solon termed "the most nerve-racking legislative session" in his memory. The Governor's automobile weight tax, the income tax, and the proposed new method of distributing the primary school interest fund were leading measures the fate of which was not determined until nearly the final hour of adjournment.

Much of the jam in the legislative machinery was caused by failure of the Senate and the House to reach an agreement over the various items in the more important appropriation bills. As a rule the Senate was more liberal than the House, and desired larger appropriations for the University of Michigan, the Michigan Agricultural College and the general building program for the other state institutions.

As in the closing hours of the many previous sessions, it was a regrettable fact that many of the most important issues were not settled entirely upon their merits, log-rolling and vote-swapping seemed to determine the fate of most of the big bills that came up in the closing hours.

Reforestation Promoted

Measures to promote the orderly development of the northern part of the state have received final legislative approval. The Senate concurred unanimously in the action of the House in the passing of the Meggison-Sargent bill to provide a deferred tax on forest growth.

Under the terms of this bill, the owner of any timber lands, or lands chiefly valuable for the growth of timber within this state, may apply to the Commissioner of Agriculture to have such property set apart for the growth of timber. If, after investigation, the application is approved by the Commissioner of Agriculture, the land shall thereafter be taxed at the rate of 5 cents per acre annually.

After a 25 year period the timber would be subject to cutting, under general control of the Commissioner of Agriculture, who would guard against wasteful methods. At this time the owner of the timber would be assessed a tax equal to 25 per cent of the stumpage value of the timber cut, to be paid into the state treasury.

There is a provision in the bill which would prevent it from working a hardship on any local taxing unit. Section 6 of the bill provides that "The State administrative board may, in its discretion, advance to the townships in which any forest reserve lands lie, such sums each year out of the general fund of the state as will compensate them for the amount of taxes which would be collectible from such forest reserve lands had they not been registered."

There was a general feeling that the annual general property tax was not adopted for the production of long-time crops, such as forest products, and that the passage of this bill would go a long way toward the most economical utilization of large areas of northern Michigan, and would do more to promote forest development than large sums invested in paternalistic tree planting by the state.

Land Certification Approved

Another bill sponsored by Rep. Meggison which has for its object the orderly settlement of Michigan farm land was passed by the Senate with but one negative vote. This was the so-called land certification bill which has been promoted by the

BITTERNESS BLASTS HOPES FOR CONSTRUCTIVE LEGISLATION

WHEN the smoke of battle has cleared away from the 52nd session of the Michigan State Legislature, legislative observers will probably agree that if it really has been a "do nothing" Legislature, as has been so frequently charged, it is not because the members did not come there with constructive ideas, but because the bitterness which developed over the gas tax, weight tax and the proposed reapportionment of the representative and senatorial districts made constructive cooperation utterly impossible. There seems to be a general sentiment that if the Governor had adopted a little different attitude in his dealings with the Legislature, all this unpleasantness and failure of constructive accomplishment might have been averted.

In some far off Utopia there may some time come such a pure form of representative government that issues will be decided and settled solely on their merits, but that day is not yet. Under present conditions every action seems to be a compromise and especially during the closing days of the session vote swapping and log rolling seems to settle the fate of most of the bills of major importance.

The squabble over the gas tax and the weight tax is a case in point. After the House had attempted to pass the gas tax over the Governor's veto and had displayed a rather cool attitude towards the proposed weight tax for motor vehicles, as favored by Governor Groesbeck, the Senate began to hold up all important House bills. When the House refused to be browbeaten and by a vote of 56 to 41 defeated the weight tax, all hope that the Senate would pass the major House measures was gone. Big bills which were the victims of this unfortunate condition included the Byrum state income tax and the Meggison bill to provide a more just and desirable system of distributing the primary school interest fund. Nearly all of the tax reform measures passed by the House were put to sleep in the Senate as a rebuke to the House for not falling in line behind the weight tax.

In view of this situation the question naturally arises "Why should the House pay such a high price to kill the weight tax?" The answer is rather complicated, but one need not look far to find at least some of the reasons. Rep. Charles Evans in the final debate in speaking in opposition to the bill said, "This has ceased to be a question of a gas tax or a weight tax, it is now a question of whether or not representative government shall prevail in Michigan."

The representatives felt that the weight tax was being forced on them by the Governor after he had arbitrarily vetoed the gas tax which the people seemed to favor strongly. They also objected to the provisions of the bill which placed the administration of the funds under the control of the State Administrative Board. This they regarded as being another effort to build up a strong political machine for the present administration.

Development Bureau of the State Department of Agriculture.

The provisions of this measure are entirely optional and no one need have his land certified unless he desires. The owners of worthless land will probably not care to have their holdings subjected to inspection and certification by the State Commissioner of Agriculture. The evident purpose of the bill is to protect those desiring to purchase Michigan land from deceptive practices of unscrupulous land sharks.

M. A. C. Gets Stadium

The proposal to loan money from the general fund of the state to finance the building of a stadium at the Michigan Agricultural College, as favored by Gov. Groesbeck, has passed both branches of the legislature.

The bill provides for the loan of \$160,000 from the State to the College for the construction of the initial unit of an athletic stadium. This loan must be repaid in ten equal annual installments beginning in 1924. As far as possible this refund is to be made out of receipts of athletic contests to be held in the proposed stadium.

Defectives to be Sterilized

One of the most sensational debates of the closing hours of the session centered around final passage through the House of Senator Sligh's bill to authorize the sterilization of mentally defective persons. Those who advocated the bill declared that sterilization was the proper treat-

ment for many cases and that it increased both the physical and mental welfare of the individual to "make good" in his local community with the minimum amount of supervision. Rep. Baxter of Grand Rapids, who led the fight for this measure in the House, declared that the enactment of this bill would allow the state officials to release at least one hundred inmates from the institutions for the feeble minded at Lapeer and that 10 percent of those now coming to this institution could be left at large in their home communities if this bill were passed. The great financial saving to the state which would result from the adoption of such a policy was also pointed out by Rep. Baxter.

Discrimination Bill Passes

Senator Bernie L. Case's bill to prevent unlawful discrimination in the purchase of potatoes was amended by the House to include grain and beans and was passed by them 85 to 3. This bill is intended to protect small local private and co-operative elevators and marketing associations from the unfair competition practiced by some old-line dealers. It has been a common practice for a few unscrupulous dealers to temporarily pay more than the market price in towns where a small elevator is trying to get a start in order to freeze out competition. These dealers have been able to pay this higher price for a short time in a few localities because they paid the farmer much

less than the market price in localities where they had no competition. Senator Case's bill was drafted by the Michigan State Farm Bureau and had the active support not only of that organization, but also of the Michigan Elevator Exchange and the Michigan Potato Growers Exchange.

Drain Laws Codified

One of the constructive measures enacted during the closing hours of the session was a revision and codification of all the drain laws of the state. This bill repeals a multiplicity of separate and somewhat disconnected acts and provides a simple and workable general drain law for Michigan. There had been no codification of the drain laws for 26 years and conditions were such that a Philadelphia lawyer was required to look up the law regarding any drainage project.

After being involved in one of the most knotty parliamentary tangles which has occurred this session, the general game law, the most interesting feature of which is the protection afforded to quail until 1930, was passed without opposition by a vote of 94 to 0. Rep. Rowe who sponsored this bill has fought hard for its passage for several months, but because of some of the other features of the bill it has had a very stormy time in getting through and was nearly strangled to death by a parliamentary tangle of red tape.

Tax Exemption Banned

After prolonged debate the House passed by a vote of 75 to 16 Senator Sligh's bill to repeal act No. 88, of the public acts of 1909, which exempts from taxation bonds issued by any county, township, city, village or school district. The House has already passed the bill which provide an annual specific tax of 3 mills on such securities, but unless the Senate also passes this measure, municipal securities will be taxed on the ad valorem basis. If the Senate does not pass the three mill tax, probably the Governor will veto the Sligh bill.

Senator Condon's bill to control the possession and sale and use of pistols, revolvers, and guns and to place their sale under strict governmental regulation was killed by the House committee of the whole without a record vote.

Senate Dodges Tax Issues

The Senate has displayed a disposition not to pass any of the important tax revision schemes which have been proposed and sanctioned by the House. Rep. Byrum's state income tax bill has never emerged from the Senate Taxation committee. Geo. C. Watson's bill to limit the tax on real and personal property for state purposes to an increase of not more than 2 per cent a year was defeated in the Senate by a vote of 12 to 17.

This measure appeared in the form of a constitutional amendment which would of necessity have been submitted to the voters for their approval. Senator Horton maintained that such an important tax reform should be submitted to the voters and he declared that he felt confident that they would pass it. In a speech in favor of the bill he said that real estate in Michigan is now bearing practically 80 per cent of the tax burden although it represents but 33 per cent of the total wealth of the state. Rep. Charles Evans's bill to limit in a similar manner taxes imposed on real and personal property for local purposes was postponed from day to day in the Senate and finally referred to the taxation committee for interment. Rep. Manwarring's bill to prevent the spread within the state of contagious dis-

(Continued on Page 31)



SENATOR JAMES COUZENS

Reforest Michigan Cut-Over Lands

Senator Couzens Urges that Michigan Legislature Take Immediate Steps to Bring About Reforestation

By J. G. HAYDEN

(Washington Correspondent The Detroit News)

ed from fire. The general opinion was that 75 per cent of the whole reforestation problem is fire protection.

Cites Benefits

The benefits from reforestation in a state like Michigan, which now is a large importer of lumber, are easy to estimate, Mr. Couzens declared.

"Southern producers told me privately that they start out by placing a value of their timber at \$10 per 1000 feet, based on their advantage in shipping cost, as against the Pacific Coast region, which now has the larger part of the virgin forests in the United States," he said. "That is to say, the lumber growers of Louisiana, Florida, and Mississippi can sell their lumber in the North and East on an equality of price with the Westerners, and take an extra profit of \$10 per thousand, due to difference in freight rates."

"On lumber grown in the Lower Peninsula of Michigan, and consumed in Detroit and other State cities; of course the advantage in shipping costs would be even greater. It does not require an expert economist to figure, on this basis, the great profit to be derived from reforesting the barren sand wastes of Northern Michigan, to producers, consuming industries and the Government treasuries alike."

Revenue Diverted

"In considering reforestation in Louisiana, the lumbermen early proposed what they termed a 'severance tax' of one-half of one per cent, on

all property removed from their cut-over areas, including second growth timber, oil and fish. The specific purpose of the tax was to provide a conservation department to guard against fires, and to foster the work."

"The tax, however, proved so profitable that the State Legislature increased it to 2 per cent, and diverted the revenues thus derived to other purposes. At the present time this 'severance tax' is providing approximately \$2,500,000 annually, most of which is being used for a state university."

"This action obviously was unfair to the lumberman, and illustrates the great obstacle to reforestation. It is sufficiently difficult, at best, to induce men to invest their money in an enterprise which will not show a profit for a period ranging from 20 to 70 years. When you add to this uncertainty about exactions of the state in taxation during this unproductive period, it is certain no person but a philanthropist would stake his money on the proposition."

The First Essential

"The first essential in promoting reforestation by private enterprise, obviously is to let the land owner know exactly what the tax will be during the entire period of reforestation. Lumbermen who appeared before our committee stated that they did not object to a yield tax of 10 per cent, or even higher, if they were assured of nominal taxation while the timber is growing."

"The degree to which many Southern lumber producers are taking up

re-forestation, even under existing adverse conditions, was an encouraging feature of our hearings. For instance Bogalouza, La., is a city established in the middle of what, 14 years ago, was a virgin pine forest. The Southern Lumber Company, which is promoting the enterprise, is proceeding on the expectation that, by the time their original timber is cut, they will have grown a new crop, and that they will be able to maintain their business permanently on its present basis."

"We saw a large park in the center of Bogalouza in which were literally hundreds of thousands of little pine trees, ultimately to be transplanted on the cut-over lands. This company is proceeding with reforestation, both by transplanting and by the natural process of seeding, with every appearance of success."

The committee will resume its investigation in June on the Pacific Coast, and will work eastward, probably arriving in Michigan in August.

The members of the committee which made the trip south, in addition to Mr. Couzens, are Senators Charles L. McNary, of Oregon; Duncan U. Fletcher, of Florida, and Patrick Harrison, of Mississippi.

HOW SHALL FERTILIZER BE APPLIED FOR POTATOES?

THE question of the proper method of applying fertilizer for potatoes is one on which there is a considerable difference of opinion among potato growers of Michigan. All agree that fertilizer should not come in actual contact with the seed pieces. Some growers prefer to broadcast fertilizer before planting, while others believe that application in the row, either with an attachment on the planter or by means of separate machine, is the proper method. In the light of present information, it is not possible to state definitely which is the best method, but it is possible to point out the factors that favor one method against another.

When to Broadcast

An occasional failure to secure results from fertilizer on potatoes is an amount. 200 or 300 pounds of fertilizer per acre spread broadcast is a very light application for an intensive crop such as potatoes. The full benefit of the fertilizer is not received until the root system of the crop has covered the entire area between the rows. It has been pretty definitely established by experiments that the fertilizing elements in the soil solution move principally upward and downward in the soil, and that there is very little movement sideways. The young plants therefore can feed only on the plant food in their immediate root zone, which is limited. After the roots have penetrated the entire area of soil between the rows and the plants in the row, all of the fertility in the soil can be drawn upon. By this time, however, the crop has been pretty well established, and the plant food will not have the same efficiency in making the crop as it would have, had it been available to the young plants in giving them a quick vigorous start. Moreover, the full benefit of the fertilizer is not likely to be received, particularly in the case of the nitrogen or ammonia. Practically no phosphoric acid and potash are lost from the soil, but nitrogen may be lost very rapidly in leaching and drainage. In the broadcast application of fertilizer containing a small amount of nitrogen the amount of the nitrogen that is actually utilized by a cultivated crop is open to question. The broadcast method of applying fertilizer for potatoes, however, is entirely logical and sound when fairly large amounts of phosphatic or potash fertilizers are applied to build up the soil supply.

Fertilizer in the Row

The methods of eastern growers, particularly in Maine and New Jersey, are worthy of consideration because they represent a practice based on the cumulative experiences of many years of fertilizer usage. In these sections there are two common

(Continued on Page 19)

The Reforestation Possibilities in Michigan

By SENATOR JAMES COUZENS

(Written especially for The Business Farmer)

THE evidence secured by the Senate Committee on Reforestation, which has recently returned from a ten days' trip in the Gulf States, where they held numerous hearings, indicates that the public are generally alive to the necessity of prompt action in promoting the growth of trees. Public interest in this is greater than most of us supposed, and a much greater interest is being manifested every day than the average person believes, and this in itself is a most encouraging condition. This does not mean, however, that there is not a great deal more to be done in an educational way to point out not only the necessity but the advantages to be gained from reforesting our cut-over lands not adaptable for agriculture, and possibly for other lands best adapted for tree-growing.

The two outstanding things to be done to encourage private reforestation are fire protection and stabilization of taxes. It has been quite clearly developed that 75% of the difficulties will be removed when proper fire protection is assured, and then there will be nothing standing in the way, when each state adopts a taxation plan, that will enable the owners of timber lands to reforest. Many states are giving earnest consideration to these matters, and some of them have adopted plans which are most encouraging, and from which all states can learn. The Committee witnessed several activities based on the plan of perpetuating lumber operations. These were based primarily in protecting the cut-over lands, which were showing re-growth, as well as the virgin timber lands. Really, no one actually knows what wonderful accomplishments can be obtained by protecting the forests from fire. Evidences existed everywhere of the damages that fire had done to young growth of timber. These enterprises referred to are not only protecting their holding against fire, but they

are taking such of the land that had been denuded previously and planting pine trees. Lands that they are cutting, they are limiting their cuts to trees over 12 inches in diameter, and where the stand is larger than this, they are leaving seed trees, which automatically re-seed the cut-over land, and where protected from fire shows remarkable results. They are establishing large paper mills so as to eliminate every waste possible. They are taking their tree-tops and under-sized part of the tree and using it for pulp purposes. They are conducting their turpentine operations on a scientific basis. One large undertaking at Bogalouza, La., is conducting an operation which is planned for an operation in perpetuity, and they are satisfied that this can be done. The State of Louisiana is pioneering in assisting in the protection and growth of timber by making contracts with private owners on a basis of stabilizing taxes in the parishes or counties at three dollars per acres, which with a thirty mill tax would be nine cents per acre per year. The taxes remain on this basis for ten, fifteen, or twenty years and when the timber is cut off a gross income tax or yield tax is paid to the State government, which tax is used in part for fire protection. Where the land, of course, is more adaptable for agriculture, this is not being done. Many farmers, with large acreage, could, with profit, grow trees on the least valuable of their agricultural land. The State of Michigan, the evidence shows is doing admirable work in the conservation line, but they could do more by studying some of the plans adopted by other States.

While the Committee has not completed its hearings, and will not for some months to come, I think enough information has developed to show that our people are going to grow forests, and with continued Federal aid and co-operation see to it that our timber supply does not become exhausted.

POSSIBILITIES for re-foresting the cutover Michigan pine lands will be investigated this summer by the special committee of the Senate which is considering a national reforestation policy, Senator James Couzens announces.

Mr. Couzens, a member of this committee, has returned from a two weeks' trip through lumber regions adjacent to the Gulf of Mexico, where the situation is similar to that in Michigan. He is enthusiastic about the advantages, both industrially and in tax revenue, which effective re-forestation would produce.

Mr. Couzens suggests that the Michigan Legislature should consider immediately the Louisiana system of taxing areas being reforested.

How They Do It

The fundamental of the Louisiana law is the reducing of taxes on lands during the unproductive period of re-forestation, the revenue being reimbursed to the state later by a tax of 10 per cent or more on the ultimate lumber yield. In return for this concession, land owners bind themselves not to cut any growing timber until the trees have reached a specified size, and then to limit their cut so that the re-forestation process will be continued permanently.

Originally these Louisiana re-forestation areas were valued for taxation at \$1 per acre, but this valuation now has been increased to \$3. That is to say, if the state tax rate is three mills to the dollar, the annual tax on the land is 9 cents per acre.

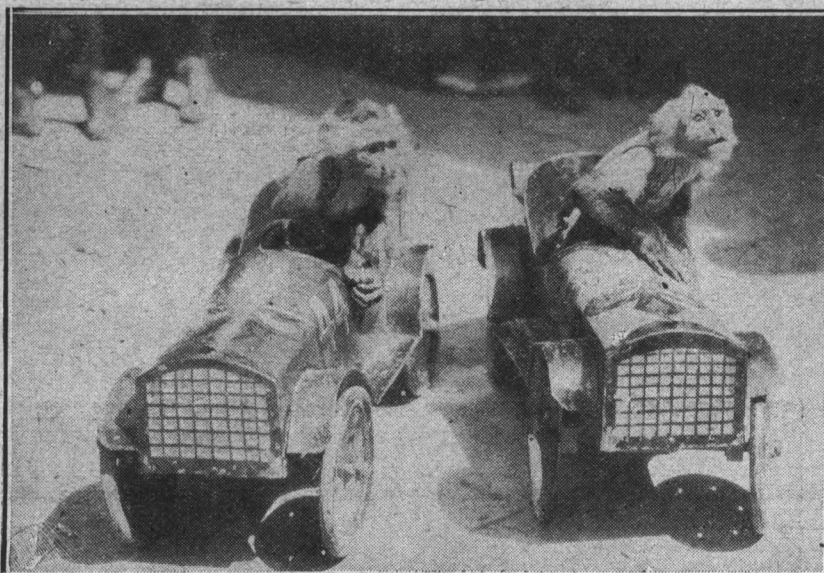
The one serious weakness of the Louisiana law, as developed in the Senate committee hearings, is its failure to provide for dividing the tax revenue between the state and the counties. The law specifies that the contracts between the land owners and the state must be approved by the county boards of supervisors, but fails to allow the counties any part of the revenue.

The counties, in effect, are asked to strike the re-forestation lands from their tax rolls, without any compensatory return. The natural result has been that the county authorities have been slow to approve re-forestation contracts.

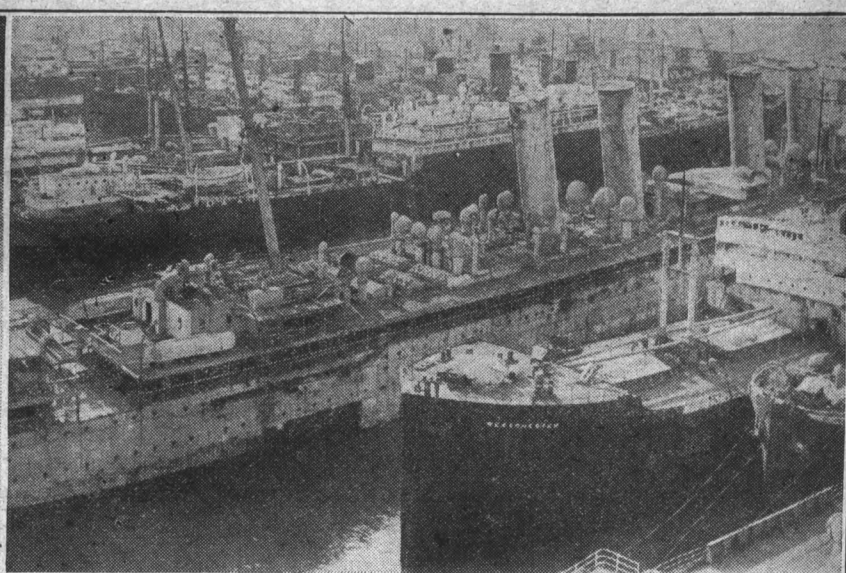
Mr. Couzens believes the tax return to the state during the re-forestation process should be limited to a sufficient fund to maintain an adequate conservation system, to provide fire protection and such supervision as is necessary to insure compliance with the contract. The remainder of the current revenue he would turn over to the counties, the state, however, to receive a liberal division of the tax yield when the timber finally is harvested.

Experts who appeared before the committee estimated the amount of denuded timber lands—that is, land from which virtually all of the trees have been removed, and which is not in use for farming and other purposes, at 81,000,000 acres. There also are considerable areas where most of the timber has been removed but sufficient trees left to provide for natural re-seeding. Of the latter sort, all that is necessary for re-forestation, the experts held, is assurance that the lands will be left undisturbed and adequately protect-

PICTURES FROM FAR AND NEAR



THE SPEED CHAMPS OF MONKEYLAND.—Left to right: "Man O' War" and "Spark Plug", as they will appear in the monkey race championship to take place at Venice Beach, California, on July 4th. It is to be hoped that the monkeys will not assert their independence and refuse to race—unless more money is assured them. They would be no different than many human professional athletes if they did that.



AWAITING THEIR FATE IN "UNDERTAKERS ROW" HOG ISLAND.—These costly vessels and many others, representing millions of dollars spent feverishly by America during the war, lie idle awaiting a purchaser. Although they are offered at a small fraction of their cost no one will buy. Wouldn't it be better for Uncle Sam to operate them as a merchant marine rather than allow them to rot down?



HIS FIRST BITE IN TWO DAYS.—A ravenously hungry and ragged little Hungarian child who is tasting the stale loaf of bread, the first bite he has had in two days. The poverty stricken populace face starvation and disease unless immediate aid is given.



SMALLEST CHURCH IN THE WORLD.—It is so tiny that only three, besides the preacher, can pray in it at the same time. It is probably fitted to the needs of the congregation. Many years ago a monk named Father Otto built it for his brother devotees at Mount Casino, Kentucky.



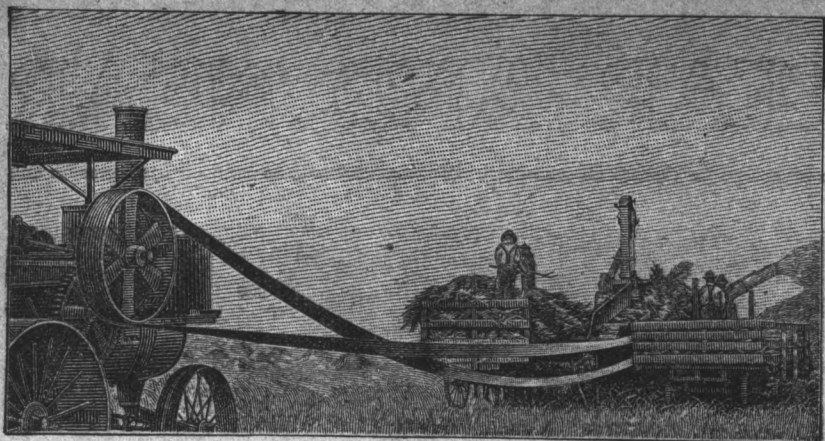
HIGHEST PAID WOMAN PLAYER IN WORLD.—Lizzie Murphy, of Eddie Carr's All Star Team, Boston, Mass., who pulls down \$300 weekly for her services as a star baseball player. This young lady is a real first sacker and takes her turn at the platter, asking no favors.



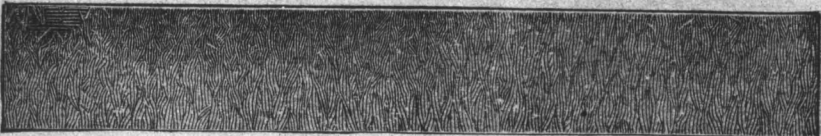
THE FALL OF A PRINCE.—The Prince of Wales took a tumble at the water jump in the Army Point-to-Point meet held at Arborfield. Note the "sorrowful" expression on the faces of the bystanders. The Prince of Wales as a sportsman has endeared himself to the people of Great Britain.



PRIEST CONVICTED OF MURDER.—Father Charles Dillon, until April 12th, assistant pastor of St. Augustine's Church at Kalamazoo, Michigan, who has begun serving a life sentence in the state penitentiary at Marquette, for the murder of his superior, Father Henry O'Neill. The convicted man claims that the cruel treatment accorded him drove him to the deed.



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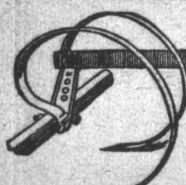
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AGREEMENT IS BINDING

I am writing for some advice. Some time ago I enrolled with a school of domestic arts and sciences to learn dressmaking. The application blank read as follows:

"I send herewith \$5 and agree to pay \$5 each and every month hereafter from date of this application until I have paid \$65." I find that I am not able to make the payments and I haven't the time to study the lessons. I have written to the school several times and explained it to them, but still they keep writing me for payments. I have paid \$15 on the course and have received five lessons. Will you kindly advise me if they can hold me to such an agreement?—Mrs. S. M., Bangor, Mich.

—Such an agreement would be valid, and binding upon both parties. You could not avoid your liability under the contract on the ground that you haven't time to study the lessons.

When you entered into the contract, you agreed to perform certain acts, and in consideration thereof, the company should refuse to send the number of lessons agreed to send, or should otherwise to perform their part of the contract, you would feel that you had a right to hold to their contract. Likewise, when you fail to perform your part of the contract, they should have a right to hold you to your agreement.

The facts you have given me do not indicate that there was any fraud or mistake which would relieve you of your duty to perform, and if the company has done its part under the contract, they could compel you to do your part, or to pay them damages for your failure to do so.

The proper time to consider the nature of your obligation, and whether or not you will be able to perform, is before you attach your signature to the contract. I would admonish you at all times, to think carefully before signing your name to any paper.—Asst. Legal Editor.

NOT RIGHT TO SET TRAPS ON YOUR LAND

I would like to know through the columns of your valuable paper if a neighbor has a right to place a dead carcass and set traps around it on my farm, after I have forbidden him to do so? He claims he can set traps wherever he likes. Thanking you for your trouble I remain.—H. Mc. K., Alpena, Michigan.

—Your neighbor would have no right to go upon your land and set traps without your permission.—Assistant Legal Editor.

THINNING VARNISH STAIN

Will you please inform me thru your columns, how I may properly thin varnish stain? I have a quart can that had not been tightly sealed and has thickened to the consistency of heavy molasses.—Mrs. J. L. P., Curtis, Michigan.

—I would advise that you let the can of stain in a dish of hot water, add about 1/8 to 1/4 pint of turpentine. Then thoroughly stir until all dissolved then strain through cheese cloth or a very fine screen.—S. B. Howard, College Painter, M. A. C.

INSURING SCHOOLHOUSE

Our local agent for old line insurance companies tells me the attorney general has made a ruling making it unlawful for us to insure schoolhouse in the Farmers Mutual Insurance Co. Is this true and if so has he the right to do so when the charter of our insurance company gives it the right to insure in Benzie, Manistee and Mason counties? Schoolhouses is enumerated as among the forms of property to be insured.—J. M., Bear Lake, Mich.

—The statute authorizing the organization of farmers' mutual insurance companies was amended in 1919, and in its amended form does not include schoolhouses as property that may be insured. As to whether or not this limitation applies to companies already organized, or only to those hereafter organized would depend on the interpretation of the

statute. I would suggest that you write to the attorney general's office to ascertain if he has recently made a ruling on this matter.

When a charter is granted to a corporation by the state, it usually contains a provision which reserves to the state the right to repeal it by subsequent legislation.—Asst. Legal Editor.

APPLY TO STATE HIGHWAY COMMISSIONER

Am writing for information as so many others are doing. I live on a mail route where the roads are almost impassable part of the year. At such time it is impossible to get a doctor, were it necessary. There has been no work on this road, of any account, for not less than ten years and which ever way I go must travel over one and one-half miles to reach a good road. Some three years ago \$1,000 was voted to repair this road and the money was used elsewhere and we are still wading mud. Have complained to the officials but they are absolutely indifferent and evade the issue. Now, is there anything that can be done to compel those in authority to build a road which will be fairly decent? We do not expect a paved thoroughfare, but would like a square deal. Our highway tax has gone to build goods roads elsewhere. Now would like some of the benefits at home. Is there any way in which we can get it?—A. H. Y., Alma, Michigan.

—If your county or township officials will do nothing apply to the state highway commissioner at Lansing. We are sure he will assist you if possible.—Editor.

PERSONAL PROPERTY

Can manure be moved off rented land? A rents land from B. There was no contract. A feeds his stock on B's land. Can A haul manure off B's place?—Subscriber, Sault Ste Marie, Mich.

—Manure in the barnyard is personal property, and a tenant who furnishes the feed which it was produced from would have a right to remove it.—Assistant Legal Editor.

SIGNERS OF APPLICATION FOR DRAINS

In making application for a county drain or dredge drain how many names are necessary on the application and is it necessary the names should be of those along the banks of the stream to be dredged, or in other words can free holders who pay or are liable to pay but very little tax sign the application and put a dredge through when but a small per cent of land owners along the stream are in favor of such dredge, and in case such a dredge goes thru is it right that those along the stream pay the debt of the tax when free holders miles back sign said petition to put it thru? After the drain is surveyed and blue print out is it possible to stop said drain providing said drain is liable to bankrupt the farmers along the drain?—A. S., Perry, Michigan.

—Section 1 of Chapter 3 of the Drain Law provides that the application for the establishing, widening, deepening or extending of the drain shall be signed by not less than one-half of the freeholders whose lands are traversed by such drain. It is impossible for a taxpayer to stop the proceedings have been regular and in accordance with the provisions of the statute unless the drain commissioner and others interested were willing to discontinue the proceedings.—H. H. Partlow, Legal Adviser, State Highway Department.

COULD COLLECT INTEREST

I have a question to ask. I would like to have you to answer through your paper. In October 15, 1918, I entered a contract with a party for the sale of my place. Principal and interest was to be paid every six months, but he has paid only the interest the last two years, and a hard time to get that. I started the contract wrong. He paid \$500 down (Continued on Page 10)



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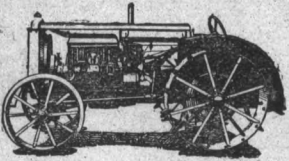


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The Hunted Woman

By James Oliver Curwood

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

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(Continued from April 28th issue)

CHAPTER XXI

FOR a minute, perhaps longer, John Aldous stood staring at the photograph which he held in his hand. It was the picture of Culver Rann—not once did he question that fact, and not once did the thought flash upon him that this might be only an unusual and startling resemblance. It was assuredly Culver Rann! The picture dropped from his hand to the table, and he went toward the door. His first impulse was to go to Joanne. But when he reached the door he locked it, and dropped into a chair, facing the mirror in his dresser.

The reflection of his own face was a shock to him. If he was pale, the dust and grime of his fight in the cavern concealed his pallor. But the face that stared at him from out of the glass was haggard, wildly and almost grotesquely haggard, and he turned from it with a grim laugh, and set his jaws hard. He returned to the table, and bit by bit tore the photograph into thin shreds, and then piled the shreds on his ash-tray and burned them. He opened a window to let out the smoke and smell of charring paper, and the fresh, cool air of early evening struck his face. He could look off through the fading sunshine of the valley and see the mountain where Coyote Number Twenty-eight was to have done its work, and as he looked he gripped the window-sill so fiercely that the nails of his fingers were bent and broken against the wood. And in his brain the same words kept repeating themselves over and over again. Mortimer FitzHugh was not dead. He was alive. He was Culver Rann. And Joanne—Joanne was not his wife; she was still the wife of Mortimer FitzHugh—of Culver Rann!

He turned again to the mirror and there was another look in his face. It was grim, terribly grim—and smiling. There was no excitement, nothing of the passion and half-madness with which he had faced Quade and Rann the night before. He laughed softly, and his nails dug as harshly into the palms of his hands as they had dug into the sills of the window.

"You poor, drivelling, cowardly fool!" he said to his reflection. "And you dare to say—you dare to think she is not your wife?"

As if in reply to his words there came a knock at the door, and from the hall Blackton called:

"Here's MacDonald, Aldous. He wants to see you."

Aldous opened the door and the old hunter entered.

"If I ain't interruptin' you, Johnny—"

"You're the one man in the world I want to see, Mac. No, I'll take that back; there's one other I want to see worse than you—Culver Rann."

The strange look in his face made old Donald stare.

"Sit down," he said, drawing two chairs close to the table. "There's something to talk about. It was a terribly close shave, wasn't it?"

"An awful close shave, Johnny. As close a shave as ever was."

Still, as if not quite understanding what he saw, old Donald was staring into John's face.

"I'm glad it happened," said Aldous, and his voice became softer.

"She loves me, Mac. It all came out when we were in there, and thought we were going to die. Not ten minutes ago the minister was here and he made us man and wife."

Words of gladness that sprang to the old man's lips were stopped by that strange, cold, tense look in the face of John Aldous.

"And in the last five minutes," continued Aldous, as quietly as before, "I have learned that Mortimer FitzHugh, her husband, is not dead. Is it very remarkable that you do not find me happy, Mac? If you had come a few minutes ago—"

"Oh, my God! Johnny! Johnny!" MacDonald had pitched forward over the table, and now he bowed his great shaggy head in his hands,

and his gaunt shoulders shook as his voice came brokenly through his beard.

"I did it, Johnny; I did it for you an' her! When I knew what it would mean for her—I couldn't, Johnny, I couldn't tell her the truth, 'cause I knew she loved you, an' you loved her, an' it would break her heart. I thought it would be best, an' you'd go away together, an' nobody would ever know, an' you'd be happy. I didn't lie. I didn't say anything. But Johnny—Johnny, there weren't no bones in the grave!"

"My God!" breathed Aldous.

"There were just some clothes," went on MacDonald huskily, "an' the watch an' the ring were on top. Johnny, there weren't nobody ever buried there, an' I'm to blame—I'm to blame."

"And you did that for us," cried Aldous, and suddenly he reached over and gripped old Donald's hands. "It wasn't a mistake, Mac. I thank God you kept silent. If you had told her that the grave was empty, that it was a fraud, I don't know what would have happened. And now—She is mine! If she had seen Culver Rann, if she had discovered that this scoundrel, this black-mailer and murderer, was Mortimer FitzHugh, her husband—"

"Johnny! John Aldous!"

Donald MacDonald's voice came now like the deep growling roar of a she-bear, and as he cried the other's name he sprang to his feet, and his eyes gleamed in their deep sockets like raging fires.

"Johnny!" Aldous rose, and he was smiling. He nodded.

"That's it," he said. "Mortimer FitzHugh is Culver Rann!"

"An'—an' you know this?"

"Absolutely. Joanne gave me Mortimer FitzHugh's photograph to destroy. I am sorry that I burned it before you saw it. But there is no doubt. Mortimer FitzHugh and Culver Rann are the same man."

Slowly the old mountaineer turned to the door. Aldous was ahead of him, and stood with his hand on the knob.

"I don't want you to go yet, Mac."

"I—I'll see you a little later," said Donald clumsily.

"Donald!"

"Johnny!"

For a full half minute they looked steadily into each other's eyes.

"Only a week, Johnny," pleaded Donald. "I'll be back in a week."

"You mean that you will kill him."

"He'll never come back. I swear it, Johnny!"

As gently as he might have led Joanne, Aldous drew the mountaineer back to the chair.

"That would be cold-blooded murder," he said, "and I would be the murderer. I can't send you out to do my killing, Mac, as I might send out a hired assassin. Don't you see that I can't? Good heaven some day—very soon—I will tell you how this hound, Mortimer FitzHugh, poisoned Joanne's life, and did his worst to destroy her. It's to me he's got to answer, Donald. And to me he shall answer. I am going to kill him. But it will not be murder. Since you have come into this room I have made my final plan, and I shall follow it to the end coolly and deliberately. It will be a great game; and I shall play it happily, because Joanne will not know, and I will be strengthened by her love."

Quade wants my life, and tried to hire Stevens, up at Miete, to kill me. Culver Rann wants my life; a little later it will come to be the greatest desire of his existence to have me dead and out of the way. I shall give him the chance to do the killing, Mac. I shall give him a splendid chance, and he will not fail to accept his opportunity. Perhaps he will have an advantage, but I am as absolutely certain of killing him as I am that the sun is going down behind the mountains out there. If others should step in, if I should have more than Culver Rann on my

(Continued on Page 12)

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Plant Certified Seed for Better Potato Crop

Growers Fail to Realize Amount of Money They Lose Through Planting Diseased Seed Potatoes

By H. C. MOORE

(Assistant Extension Specialist in Potatoes, M. A. C.)

LAST year over 1,000 growers in Michigan planted Michigan Certified Seed Potatoes in comparison with uncertified seed. A summary of the results reported by these men showed that the average increase in yield secured from the certified seed was 45 bushels per acre, and that the quality of the crop grown from certified seed was far superior to that from ordinary seed. Many growers reported that approximately 90 per cent of the potatoes produced from certified seed were marketable while only 60 per cent or so of the crop from uncertified seed could be marketed. In all cases the certified seed was planted under the same conditions and handled in the same manner as the uncertified seed. The reason for the better yield of high quality potatoes from the certified seed was that it was free from serious diseases and was from vigorous high yielding strains, while the uncertified seed was generally infested with disease and was lacking in vigor.

If growers realized how diseases such as mosaic, leaf roll, spindling sprout, etc., reduce the yields and lower the quality of potatoes, they would make every effort to plant nothing but disease free high quality seed. All of the diseases here named live over in the seed potatoes and produce weak hills and plants of abnormal growth which have low yields of poor quality tubers. It is quite common for fields planted with ordinary seed to show 25 per cent or more of these diseases.

The planting of certified seed can be considered a very good form of potato crop insurance for this seed when planted in good soil and grown under good cultural conditions will produce a satisfactory crop of good quality potatoes. Uncertified or ordinary seed potatoes contain a high percentage of diseases and may produce a very poor yield even when grown under the best conditions.

The initial cost of poor seed may be very low but the results it gives in poor yields and poor quality makes it too costly for any potato grower to plant. There is no reason this year for planting poor seed when high quality certified seed is available at very low cost.

In 1922 Michigan growers bought only 22 per cent of the certified seed that was offered for sale in Michigan. Seventy-eight per cent of the seed was sold outside of the state. Pennsylvania last year took 52 cars of Michigan Certified Seed. This seed gave the Pennsylvania planters 50 per cent greater yields than did the uncertified seed with which it was tested. This season Pennsylvania has already bought over 150 cars of certified seed from Michigan.

Ohio, Indiana, Illinois, Maryland, Virginia, Missouri, New Jersey, Connecticut and West Virginia are other states that are buying considerable

quantities of Michigan seed potatoes.

Certified potatoes are shipped in bags containing 150 pounds. Each bag is sealed with a lead and wire seal to which is attached the official green tag of the Michigan Potato Producers' Association. Upon receipt of the potatoes they should be emptied from the sack and should be put in a cool well ventilated place where they will not be exposed to frost.

During warm weather seed potatoes are often injured by being left in sacks for several days. If they are spread out on the cellar or barn floor they will not become heated and their sprouts will not be injured.

There has been noted a tendency among growers to be too economical with certified seed. Since the cost of the certified seed is a little greater than that of ordinary seed many of them are apt to cut the seed so that it will cover as large an acreage as possible. Certified seed should be cut so that each "set" weighs approximately 2 ounces. Each seed piece should contain one or two strong eyes. If the sets are cut square or "blocky" they will handle well in the planter and will not dry out quickly in the soil. One should figure on planting 15 bushels or more of seed to the acre.

During the past few months several car loads of certified seed have been bought by Michigan farmers. In some of the counties the farmers have placed their orders for certified seed with their County Farm Bureau, Local Cooperative Associations of local dealers and have thus been able to get the potatoes on the basis of car load rates and have made considerable saving in freight charges.

Those interested in securing certified seed potatoes should write to the Secretary of the Michigan Potato Producers' Association, East Lansing, Michigan.

SEEK LIME NEED OF FARMS

FINDING the lime requirements of every farm in the state, in order to take the "guess" out of the important work of liming Michigan soils, is the ambitious program which has been adopted this spring by the soils department at the Michigan Agricultural College.

Accomplishment of the extensive testing operation has been made possible by the perfection of a simple yet accurate method of testing soils, developed by Prof. C. H. Spurway of the college soils staff. This is called the Soiltex Method, and in using it a farmer, or his wife or children, can determine in one short operation whether or not a soil needs lime, and just about how much.

The Soiltex testing outfit, which is distributed from the college soils section on request, contains enough material for at least 200 tests, together with detailed directions.

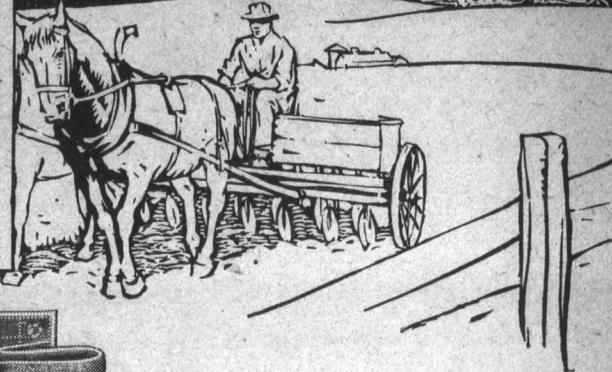
ROUGE REX

More Mileage Shoes
Double-Tanned—Double Wear

It will be three years this Fall since I bought your Rouge Rex shoes and after having put three pairs of new soles on them, they are good yet. I wore them most of the time. They are the best fitting and easiest walking shoes I have ever worn. They are certainly made to stand the wear and tear such as farmers give shoes, and are always soft and pliable summer and winter.

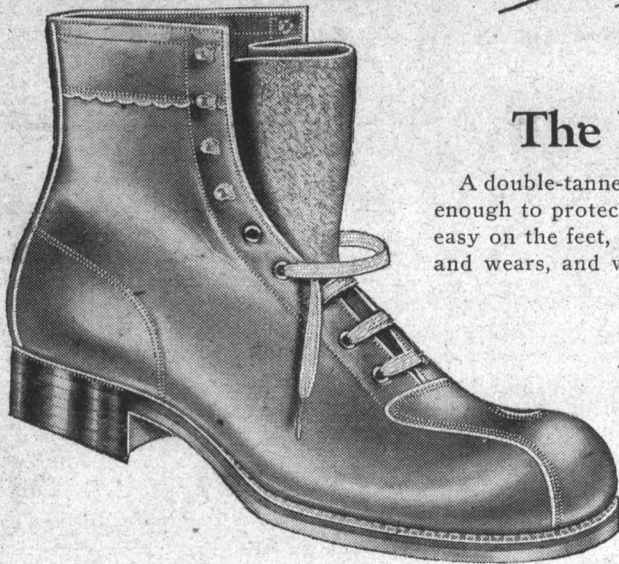
There are six of us and we are all going to buy your shoes. My neighbor asked me when I was going to wear this pair out and I told him that if I knew that I could get another pair, I would do so. He said he would too.

Yours truly,
(Signed) WALTER HOFF,
West Saginaw, Mich., R. No. 1
Feb. 18, 1921.



The Planter

A double-tanned horsehide shoe, high enough to protect the ankles. Soft and easy on the feet, but a shoe that wears, and wears, and wears.



Ask for Stock Nos.
4127, 442, 4126

Horsehide—Double Tanned That Always Stays Soft

We make a specialty of work shoes, made exclusively of double-tanned horsehide. Our double tanning process is an exclusive method of tanning this most durable leather so it always stays soft and pliable as buckskin.

Horsehide is known as the toughest of all leathers. It is the only leather used to cover league baseballs, because it is the only leather tough enough to stand the pounding. We double-tan it, increasing its durability yet making it so flexible that you can wear it all day, day after day, and it never tires your feet.

And it stays soft. Wet it, soak it, wear it through mud and water, it will dry out just as soft as when new. It never grows hard like other leathers.

We use only the choicest horsehides, and we use only the best part of each hide in making the Rouge Rex — the butts, where

the fibre is closest and toughest. Men who have worn Rouge Rex shoes say they never thought leather could last so long, or keep its softness after wetting.

You'll note how thick the leather is in Rouge Rex shoes. Then you'll marvel at its velvet-like flexibility. We make a Rouge Rex 1000 Mile Shoe for every work purpose. For field and factory, for oil field, camp or lumbering. And every shoe is horsehide through and

through.

You'll say, after wearing a pair of Rouge Rex, that this is the most economical shoe you ever bought. For it outlasts all other shoes, and it gives the satisfaction of perpetual comfort and ease.

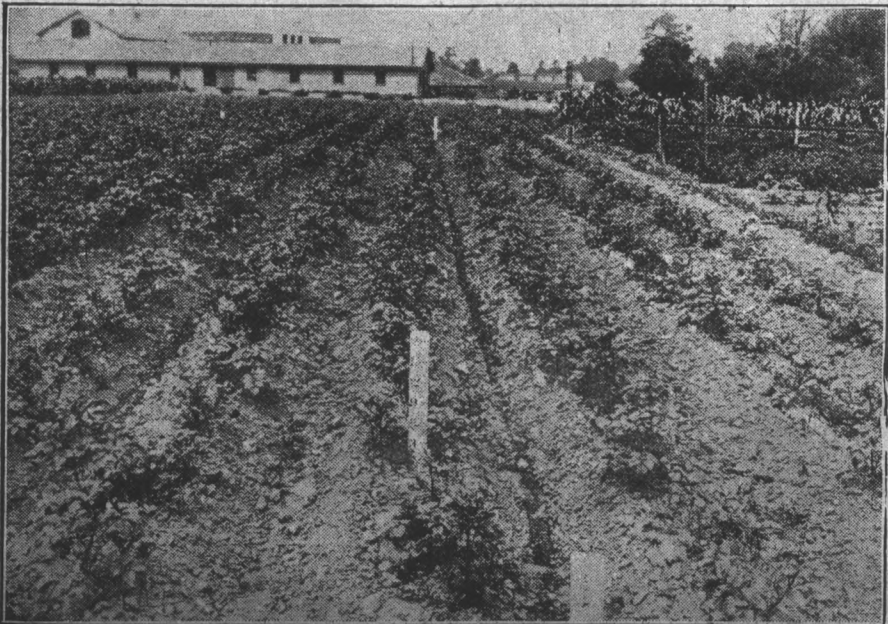
If your dealer hasn't the Rouge Rex we will see that you are supplied through our nearest dealer. Write us for his name.

Rouge Rex Comfort Shoe



This Rouge Rex is so pliable and soft you can double it up like a moccasin. It wears like iron but you'll hardly know you have a shoe on, it is so soft and easy.

For tender feet, or where you do not encounter wet weather, wear this Comfort Shoe. You'll find it a blessing to the feet.



Counting from right to left the first seven rows in the field were planted without fertilizer, the others received proper application. Although one is unable to see the fertilized rows in such a way as to make a proper comparison, you can plainly tell there is a considerable difference.

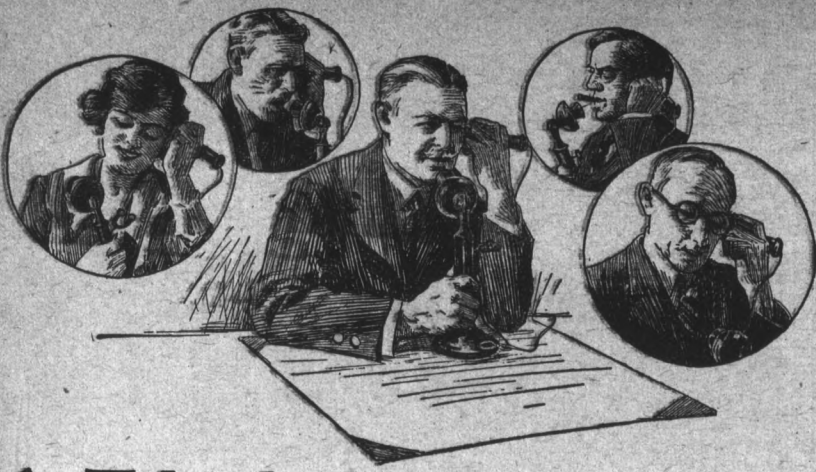
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Grand Rapids, Mich.



A Telephone Personality

In your face to face contacts with people, your appearance, your bearing and many other things help you to make the right impression. But in your telephone contacts there is only one thing by which you can be judged—your speech.

An effective telephone personality is to-day a business and social asset. Everybody appreciates the person who speaks distinctly and pleasantly, neither too fast nor too slow, with a clear enunciation of each word, with lips facing the mouthpiece and speaking into it. In business, this is the telephone personality which induces favorable action on the part of the listener. To the salesman it may mean the difference between an order and no order; between an interview granted and an interview refused.

Curiously enough, people who are careful to make themselves effectively heard and understood face to face, often disregard the need for effectiveness in their telephone speech. Perhaps they shout, perhaps they mumble, perhaps they hold the mouthpiece far from their lips. And frequently they never realize that their carelessness has defeated the purpose of their talk.

The Bell System maintains for telephone users the best facilities that science, modern equipment, skilled operation and careful management can bring to telephone speech. But these facilities can be fully effective only when they are properly used.



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AMERICAN TELEPHONE AND TELEGRAPH COMPANY
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One Policy, One System, Universal Service, and all directed toward Better Service

Apples—Peaches and other Fruits

State Experiment Stations, Horticulturists and Farm Papers now acknowledge that Nitrogen is the limiting element in successful Fruit Growing and are recommending the use of

Nitrate of Soda

2 to 10 pounds per tree to furnish this Nitrogen because it is immediately available.

Your own station will advise you how to treat your own orchard. My Free Bulletin Service will give you much useful advice on fertilizing all kinds of crops. If you wish to receive it send me your name and address and to identify this advertisement add the number 1719

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

Cured Her Rheumatism

Knowing from terrible experience the suffering caused by rheumatism, Mrs. J. E. Hurst, who lives at 608 E. Douglas Street, C-489, Bloomington, Ill., is so thankful at having cured herself that out of pure gratitude she is anxious to tell all other sufferers just how to get rid of their torture by a simple way at home.

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

PLANTS AND SEEDS

SPECIAL OFFER—300 STRAWBERRY Plants, 150 Senator Dunlap, 150 Warfield, \$2.00 postpaid. Satisfaction guaranteed. J. E. HAMP-SON & SON, 29, Bangor, Michigan.

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I offer Business Farmers genuine, guaranteed new stock, CORD TIRES, of standard makes:

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Write me for equally low prices on other sizes.

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Oversize Cords.....\$13.95
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EARN \$110 to \$250 MONTHLY, EXPENSES paid, as Railway Traffic Inspector. Position guaranteed after 3 months' spare time study or money refunded. Excellent opportunities. Write for Free Booklet G-165. STAND. BUSINESS TRAINING INST., Buffalo, N. Y.

MONEY TO LOAN ON FIRST CLASS Central Michigan farms. 5% interest net to Co. amounts of \$5,000 and up. CONVIS & SMITH, Ithaca, Michigan.

FORDSON TRACTOR FOR SALE—GOOD as new. Cheap. C. BRIERLY, Highland Park, Michigan. General Delivery.

PRINTED STATIONERY, 200 SHEETS, 100 envelopes with your name and address on both. \$1.00. THE BENTE PRINT SHOP, Kalamazoo, Michigan.

FRUIT AND ORCHARD

Edited by FRANK D. WELLS

SPRAY RINGS IMPROVE FARM ORCHARD PRODUCTION

THE co-operative spray ring, developed in connection with demonstrations in orchard spraying, is solving the problem of spraying the small home orchard, for an increasing number of farmers, according to reports to the United States Department of Agriculture. While the plan has been used most extensively in Iowa, farmers in Minnesota, Missouri, Wisconsin, Illinois, and Ohio find it a good method, and on the Atlantic Coast several counties in Connecticut and New Jersey organized rings in 1921. In Iowa, the number of counties reporting the organization of spray rings increased from 16 in 1921, to 31 in 1922. Seven counties in Illinois report new spray rings in 1922. Stark County, Illinois, which organized two rings in 1921, has become so interested in the care of the farm orchard that six power-machine rings and five hand-machine rings were organized in the summer of 1922, serving more than 100 home orchards.

The plan of organization of these rings is kept as simple as possible. The men interested in spraying get together at one of the extension meetings and decide to try co-operative spraying. Usually a written agreement covering the method of managing business matters and the ownership of equipment of the ring is prepared and signed. The kind of equipment, hand and power, is selected and the cost apportioned, a schedule is made out, and the members decide whether each man will do his own spraying with the co-operative equipment, whether some one member will spray all the orchards for an agreed labor price, or whether an outside person will be hired to do the work. Each of the three plans has proved satisfactory. In Poweshiek County, Iowa, they have found it most convenient to do the work individually; in Stark County Illinois, the same plan is followed. In Union County, Iowa, the sons of two farmers operated the power machine last season, one furnishing a team and the other a gasoline engine. They sprayed 14 orchards, some 1,500 trees, completing each spray in two days, the members giving little or no attention to the work. Students of Runnells Consolidated School in Polk County, Iowa, sprayed practically all the orchards in their community. Advice as to sprays and time of applying is usually obtained from the county agent.

The size of the ring varies, averaging from 3 or 4 members in the smallest ones to 20 or more in the larger. The cost of operation depends, of course, on several factors, the type of equipment, whether labor is employed or the work done by members for themselves, the distance between orchards, the number of sprays put on, and similar items. For one orchard in Webster County, Iowa, where 4 sprays were applied, the average cost of material per tree was 37c, labor 33c, depreciation on machinery 5c, making a total cost of 75c per tree for the four sprays. A Union County, Iowa, ring spent \$210 for equipment, material, and the labor of two men and teams, and sprayed 1,500 trees four times. A twelve-orchard ring organized in Johnston County, Iowa, several years ago, spends about 15c per tree per spray. The results, according to the owners, more than justify the small expenditure. In every case where the spraying was done as advised last season, the work accomplished its object and the members had plenty of clean, sound homegrown apples to store for winter use. The Webster County orchard produced 99 per cent clean fruit. Fayette County, Iowa, reports in the sprayed orchards 75 per cent of the fruit as clean and sound, and 25 per cent scabby and wormy; the unsprayed orchard 15 per cent sound, clean fruit and 85 per cent scabby and wormy. Walworth County, Wisconsin, spray ring members figured in 1922 a return of \$852 for each dollar spent in spraying. The bearing trees were sprayed three times.

Results of spray ring work in Hardin County, Iowa, in fact, were so good in 1922 that the disposal of

the surplus fruit was a problem, as none of the members had had any experience in picking, packing, or grading apples. Twenty-five men were shown by extension workers how to pick and pack their apples, using homemade equipment, and the surplus apples were put on the market in baskets and boxes packed according to market grades.

COULD COLLECT INTEREST (Continued from Page 6)

on October 15, 1918, and was to pay \$150 every six months thereafter that would make his first payment after April 15, 1919, October 15, 1919. I dated it April 15 to October 15, 1919, but I should have dated it October 15, 1918 to April 15, 1919 thereafter, giving him credit as though it was paid in advance. He took a bank mortgage on his place several days ago. I gave him deed and abstract but was unable to collect the last 5 months interest because he says it shows he paid up until April 15, 1923. Would I be able to collect interest under these conditions by going to court? It is written with pen and ink.—A Subscriber, Oakwood, Michigan.

—You say the contract was entered into on Oct. 15, 1918 and required the purchaser to pay \$150.00 every six months thereafter. I don't see how that would make this first payment fall due on October 15, 1919, computing the time, as you say, from April 15, 1918.

If the contract was dated Oct. 15, 1918, and the first installment was paid on April 15, 1919, according to its terms, I am of the opinion the interest on this installment could be collected, as well as interest on all other installments which were not actually paid in advance.—Asst. Legal Editor.

RUNS INTO COW

When driving home one evening I ran into a cow with my car. I had good lights, but it was storming, and the cow was not being driven by any one. My car was damaged considerable. Can I collect damage for my car? The cow had been at liberty to run on the road for some time and in all kinds of weather. She ran in front of the car, too close for me to stop. This happened about 10:30 at night.—A. C., Milka-do, Michigan.

—There is a statute in Michigan prohibiting owners from letting their cattle run at large on the highways, except in those townships in which it is permitted by the township. If the by-laws of your township do not allow cattle to run at large, I am of the opinion you could collect from the owner of the cow for damages done your car.—Asst. Legal Editor.

SKUNK HIDE TANNING FOR ROBE

Will you please let me know through your next issue how to tan skunk hides for a robe? I am a subscriber and like the paper very much. I am always ready to read when it comes.—G. V., Kingsley, Mich.

—The method recently explained for tanning small fur pelts is all right which is as follows:

Flesh the skins carefully, then soak say two hours in the following liquor: Four gallons of cold, soft water; one-half ounce borax; one half pint salt; one ounce of sulphuric acid. This will prepare the hides for the tanning liquor. Now take two gallons of cold, soft water; one-fourth pound of pulverized oxalic acid; one quart of salt. Put the skins in this and leave them there about two days or until no dense spots are to be seen. When tanned remove the skins, wring them dry, then hang them in the shade and pull and work while drying as this tends to make the hide soft. Skunk hides are usually pretty greasy yet if the hides when working with them appear harsh and dry grease with unsalted butter.

When making the first liquor add the sulphuric acid last, pouring it in slowly and stirring all the time. The quantities of the various articles mentioned are sufficient to tan from six to a dozen skunk hides depending on the size.—Fur Editor.

THE UPPER ROOM REVELATION

A SERMON BY REV. DAVID F. WARNER

Read Acts 1:6-14; 2:1-4.

TEXT: "But ye shall receive power, when the Holy Spirit is come upon you; and ye shall be my witnesses both in Jerusalem, and in all Judea and Samaria, and unto the uttermost parts of the earth."—Acts 1:8.

SUNDAY School folks for six months have been following our Lord to the "upper room." But how many entered? How many joined the inner circle with Peter, James, John, and the rest?

But interest and curiosity have led many Oriental travellers to seek the location of the "upper room." Tradition has built there a Christian church. We may not know the site accurately; but we do know the Bible makes the "upper room" a place of more than ordinary interest and significance. And Acts deepens our interest if we understand that this "upper room" is the founding place of corporate Christianity, or the Church. Christianity began when John exclaimed "Behold, the Lamb of God, that taketh away the sin of the world." But the church as spiritually organized and set apart, began in the "upper room" at Pentecost. Here the disciples waited, prayed, and expected until they were endued with a spiritual revelation; the promised power.

This empowering was unto service; unto witnessing. "And they began to speak with other tongues." "O, for a thousand tongues to sing my dear Redeemer's praise." But have you put into faithful use the one tongue you have? Do you remember when you were baptized in the Holy Spirit? Did you feel personally saved? Were you satisfied with that? But we are not to be satisfied until the "uttermost parts" are saved. And now, how about your city—your "Judea and Samaria?"

Well, how may we know when the "uttermost parts" come within the horizon of our spiritual vision and within the reach of our help? The summer days were long and sometimes lonesome in a Michigan grocery store. My merchant friend, being a Christian, prayed "without ceasing." Hours were spent with his Bible. And, lo! one day there rushed in on the plane of his vision the sight of the "uttermost parts;" of sinning, suffering men. He heard the call of God to every man. But for him it meant to live and labor with a foreign folk. And he did. Even so, our horizon is to be extended as to include, sacrificially, "Greenland's icy mountains and India's coral strands." This has to do with vision; and vision has to do with providence, and prayer. "A Christian on his knees," says Griffith Thomas, "sees farther than a philosopher on his tip-toes."

But, according to our text, we are empowered to witness to the Truth. "What is truth?" The world is ever repeating Pilate's question. Perhaps in no other day has there been such a widened quest for truth. Yet most folks are straddlers. If truth means a sacrifice of comfort, money, prestige, or pleasure, error is more welcome.

But when Christ said "I am the Truth," He did not refer, in the first intention, to what was written in text books, taught in the schools, or worked out in the laboratories. The opinions of men may and do have some truth, but Christ meant originally and now, the truth about the mission and destiny of men, about this life and the next; even the truth about God.

Now, regarding these things, the War brought a decided awakening. Bibles could hardly be made fast enough. The late war may be called one of religions. Or as vice-president Marshall said at the time, "a war between Bethlehem and Berlin." The moral forces of this war revolved about the character of God. Was he a God that had decreed that the masses of men were but chattels to be manipulated at the will of political overlords? Or was he a God who made man in his image and all men equal and brothers? That provided for the healing of the sick, the return of the prodigal, and the deliverance of the oppressed? This is the revealed Truth that we are called to vindicate.

Note the happy abandon in which

the early church went to work. What an example of brotherliness! "And the things he possessed was his own." "There is not one single race of men," said Justin Martyr, in the second century, "whether barbarians or Greeks, or whether they be called nomads or vagrants, or herdsmen dwelling in tents, among whom prayers and giving of thanks are not offered thru the name of the crucified Jesus." What magnanimous surrender to Truth! And in our day a missionary who was offered a three-fold increase in salary to teach school, declined, saying "China must have the Gospel tho I starve." This is the kind of service that impresses one as devotion to Christian truth.

Does devotion to others pay? A little Welsh boy lay dangerously ill. The mother walked five miles in the night to get a doctor. The physician hesitated. "Will it pay," said he to himself. "If the baby gets well he will be but a poor laborer." But professional duty conquered and he went. The boy got well and became Lloyd George of England. Did it pay to save a prime minister, who in the time of a world crisis, made a passionate public appeal for the ushering in of the reign of the Prince of Peace on earth? Our Lord's call to every man out of this night of world confusion, is a faithful discharge of duty as Truth lights the way, and some day he shall understand it paid.

Yes, Christ is the truth. Yet, as a religious leader, he was the most calamitous failure the world has ever known; measured by the standards of his own generation. Why? Because of his adherence to Truth. "To

this end have I been born, that I should bear witness to the truth," said he. (And so have you my friend). But measured in the thought of our own generation, this man is irresistible as the incarnate truth of God. To be sure, there is yet much error and a lot of pharisaism and hypocrisy. What is hypocrisy? It is burlesquing truth before the world. It is making life a stage performance. And every man who is ambitious for his OWN success, has fallen heir to this temptation. But Jesus was not anxious for personal success nor desirous of a broad field. He cared only to be an uninterrupted channel of truth. He knew he possessed the gift of a world redemption, and unparalleled power to achieve it. He knew men stood in crying need of the personal and social salvation that he, only, could provide. (And they do yet.) So he must witness to this truth, though he had to pronounce some of the church leaders of the day as snakes, liars, and murderers; and lose the understanding and sympathy of friends. And were he to make a second advent today, can you imagine what he would say to quarreling church factions, unsocial religious leaders, and all the enemies of revealed truth?

At Camp McArthur, a regiment was at the depot to entrain for France. A good, but very ordinary man who had helped the soldier boys much, was there. He asked the commanding officer if he might pray for the boys? He did so while all was quiet. Then, stepping forward, the officer said, "Men, I have never been a Christian, but I want here and now to acknowledge my allegiance to Jesus Christ as my Lord and Savior."

This man of just the common garden variety, had been in the "up-

per room" with Christ. And true to its demands he became a living witness to Truth as he had experienced it, robbing life of hell in his own narrow field.

Are you ready to stand, my friends, along side of Him, who through living in the midst of error and hypocrisy, even among a set of despicable liars and murderers, stood calm and reposed upon the impregnable rock of truth? You will find power in the "upper room."

"I built my soul an upper room,

A place of prayer;
Where, free from all disturbances,
From doubt and care,
Serene it rests. And thou, dear Christ
Art always there.

God grant that when I leave this room

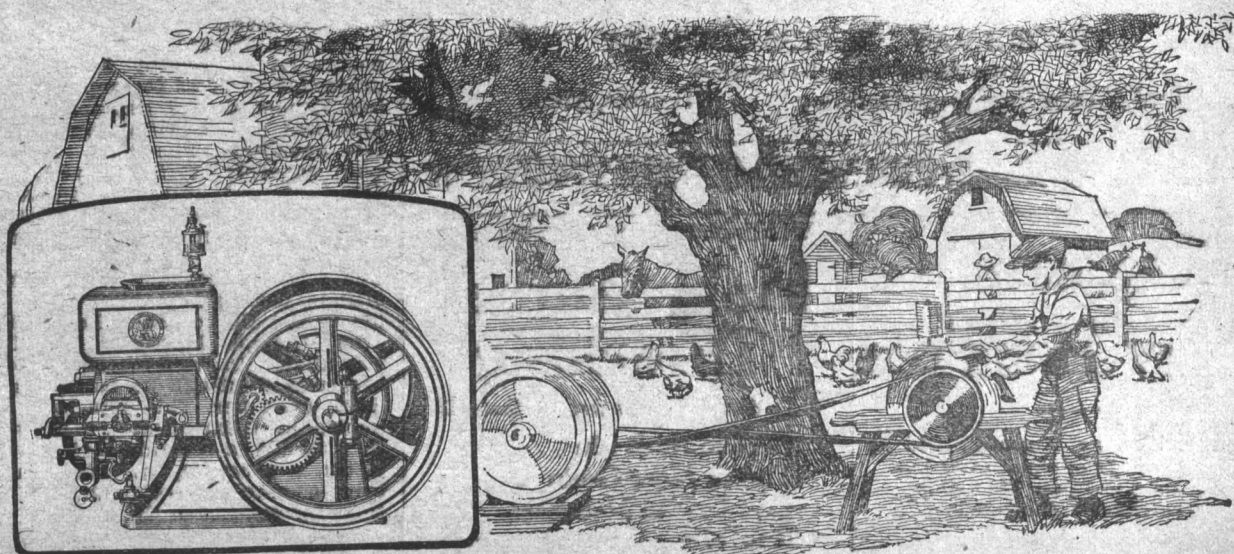
For tasks below;
The peace that I have found may from

My spirit flow,
Till those I meet build upper rooms
And thither go."

GRAIN CROPS OF ARGENTINA
FIRST official estimates of 1922-1923 grain production in the Argentine have just been received by the Department of Commerce from Consul General W. Henry Robertson and shows a production of 5,281,718 metric tons of wheat, 1,175,575 tons of linseed, oats, 793,484, barley, 130,171 and rye, 64,197. While there is a natural variation in the yields of the various provinces, the whole crop of grains is thought to be satisfactory.

A LAUDIBLE AMBITION

"I want to do something big and clean before I die."
"Wash an elephant."—News from Home.



"The best hired help I ever had"

WATSON RISELEY, of Wittenberg, N. Y., is one of many farmers who are making a Hercules pay for itself over and over again in wages saved and in fuel. A year ago he bought his Hercules, expecting to use it only for sawing and threshing.

"However," he writes, "I have found that it does my work so easily and relieves me of so many chores that I had to do before, that I have time to help my neighbors with their work. This engine is the best hired help I ever had. Uncomplaining, economical, it gives me time to use it to my profit."

Mr. Riseley's Hercules exceeded his expectations. He bought it for a definite purpose. Then he found that there were scores of jobs that the Hercules could do better, more quickly and more easily than they had ever been done before.

The latest type of magneto is part of the Hercules' equipment, eliminating entirely all fussing with batteries. Rain, shine or snow it keeps the engine on the job. Weather conditions have no effect on it. A boy can start and operate the Hercules. You can get your Hercules with either magneto or battery. We recommend the magneto equipment.

It costs no more to own a Hercules. In fact the price is less than most standard types of engines. They range in size from 1½ to 12 H. P. And behind every one is the five-year guarantee of The Hercules Corporation.

There is a Hercules dealer near you. If you can't find him drop us a postal. Let us tell you how the Hercules will do the drudgery on your farm.

THE HERCULES CORPORATION

Engine Division, Dept. L

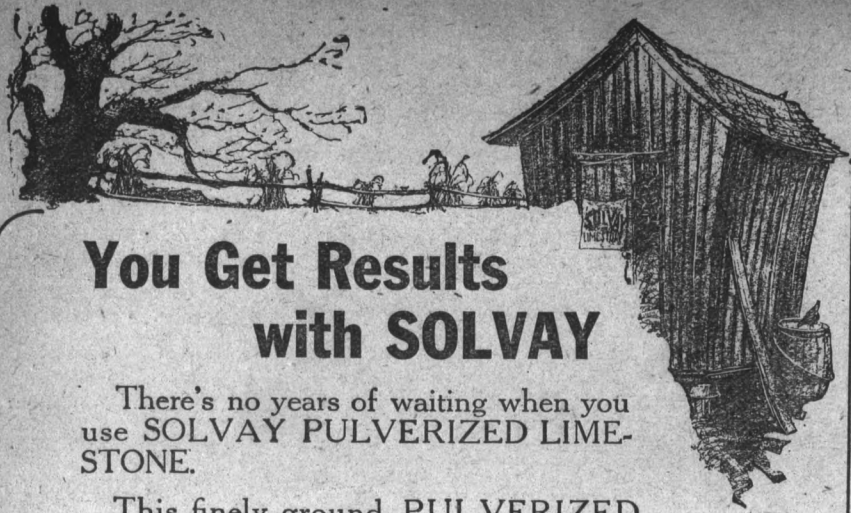
Evansville, Indiana

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"The Gasoline Engine
on the Farm"

May we send you this free book? It tells, completely and interestingly, all that every farmer wants to know about the use of the engine on the farm. Written by H. Hayward, formerly Dean of Delaware Agricultural College. Send for it today.



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Sales Agent, Wing & Evans, Inc.

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WHEN WRITING TO ADVERTISERS PLEASE MENTION MICHIGAN BUSINESS FARMER

THE HUNTED WOMAN (Continued from Page 8)

hands—why, then you may deal yourself a hand if you like, Donald. It may be a bigger game than One against One."

"It will," rumbled MacDonald. "I learned other things this afternoon, Johnny. Quade did not stay behind. He went with Rann. DeBar and the woman are with them, and two other men. They went over the Lone Cache Pass, and this minute are hurrying straight for the headwaters of the Parsnip. There are five of 'em—five men."

"And we are two," smiled Aldous. "So there is an advantage on their side, isn't there, Mac? And it makes the game most eminently fair, doesn't it?"

"Johnny, we're good for the five!" cried old Donald in a low, eager voice. "If we start now—"

"Can you have everything ready by morning?"

"The outfit's waiting. It's ready now, Johnny."

"Then we'll leave at dawn. I'll come to you to-night in the coulee, and we'll make our final plans. My brain is a little muddled now, and I've got to clear it, and make myself presentable before supper. We must not let Joanne know. She must suspect nothing—absolutely nothing."

"Nothing," repeated MacDonald as he went to the door.

There he paused and, hesitating for a moment, leaned close to Aldous and said in a low voice:

"Johnny, I've been wondering why the grave were empty. I've been wondering why there weren't somebody's bones there just to give it the look it should 'a' had, an' why the clothes were laid out so nicely with the watch an' the ring on top!"

With that he was gone, and Aldous closed and relocked the door.

He was amazed at his own composure as he washed himself and proceeded to dress for supper. What had happened had stunned him at first, had even terrified him for a few appalling moments. Now he was superbly self-possessed. He asked himself questions and answered them with a promptness which left no room for doubt in his mind as to what his actions should be. One fact he accepted as absolute: Joanne belonged to him. She was his wife. He regarded her as that even though Mortimer FitzHugh was alive. In the eyes of both God and man FitzHugh no longer had a claim upon her. This man, who was known as Culver Rann, was worse than Quade, a scoundrel of the first water, a procurer, a blackmailer, even a murderer—though he had thus far succeeded in evading the rather loose and poorly working tentacles of mountain law.

Not for an instant did he think of Joanne as Culver Rann's wife. She was his wife. It was merely a technicality of the law—a technicality that Joanne might break with her little finger—that had risen now between them and happiness. And it was this that he knew was the mountain in his path, for he was certain that Joanne would not break that last link of bondage. She would know, with Mortimer FitzHugh alive, that the pledge between them in the "covey," and the marriage ceremony in the room below, meant nothing. Legally, she was no more to him now than she was yesterday, or the day before. And she would leave him, even if it destroyed her, heart and soul. He was sure of that. For years she had suffered her heart to be ground out of her because of the "bit of madness" that was in her, because of that earlier tragedy in her life—and her promise, her pledge to her father, her God, and herself. Without arguing a possible change in her because of her love for him, John Aldous accepted these things. He believed that if he told Joanne the truth he would lose her.

His determination not to tell her, to keep from her the secret of the grave and the fact that Mortimer FitzHugh was alive, grew stronger in him with each breath that he drew. He believed that it was the right thing to do, that it was the honorable and the only thing to do. Now that the first shock was over, he did not feel that he had lost Joanne, or that there was a very great danger of losing her. For a moment it occurred to him that he might turn the

law upon Culver Rann, and in the same breath he laughed at the absurdity. The law could not help him. He alone could work out his own and Joanne's salvation. And what was to happen must happen very soon—up in the mountains. When it was all over, and he returned, he would tell Joanne.

His heart beat more quickly as he finished dressing. In a few minutes more he would be with Joanne, and in spite of what had happened, and what might happen, he was happy. Yesterday he had dreamed. To-day was reality—and it was a glorious reality. Joanne belonged to him. She loved him. She was his wife, and when he went to her it was with the feeling that only a serpent lay in the path of their paradise—a serpent which he would crush with as little compunction as that serpent would have destroyed her. Utterly and remorselessly his mind was made up.

The Blacktons' supper hour was five-thirty, and he was a quarter of an hour late when he tapped at Joanne's door. He felt the warmth of a strange and delightful embarrassment flushing his face as the door opened, she stood before him. In her face, too, was a telltale riot of colour which the deep tan partly concealed in his own.

"I—I am a little late, am I not, Joanne?" he asked.

"You are, sir. If you have taken all this time dressing you are worse than a woman. I have been waiting fifteen minutes!"

"Old Donald came to see me," he apologized. "Joanne—"

"You mustn't, John!" she expostulated in a whisper. "My face is afire now! You mustn't kiss me again until after supper—"

"Only once," he pleaded.

"If you will promise—just once—"

A moment later she gasped:

"Five times! John Aldous, I will never believe you again as long as I live!"

They went down to the Blackton's, and Peggy and Paul, who were busy over some grownig geraniums in the dining-room window, faced about with a forced and incongruous appearance of total oblivion to everything that had happened. It lasted less than ten seconds. Joanne's lips quivered. Aldous saw two little dimples at the corners of her mouth fighting to keep themselves out of sight—and then he looked at Peggy. Blackton could stand it no longer, and grinned broadly.

"For goodness sake go to it, Peggy!" he laughed. "If you don't you'll explode!"

The next moment Peggy and Joanne were in each other's arms, and the two men were shaking hands.

"We know just how you feel," Blackton tried to explain. "We felt just like you do, only we had to face twenty people instead of two. And you're not hungry. I'll wager that. I'll bet you don't feel like swallowing a mouthful. It had that peculiar effect on us, didn't it, Peggy?"

"And I—I almost choked myself," gurgled Peggy as they took their places at the table. "There really did seem to be something thick in my throat, Joanne, dear. I coughed and coughed and coughed before all those people until I wanted to die right there! And I'm wondering—"

"If I'm going to choke, too?" smiled Joanne. "Indeed not, Peggy. I'm as hungry as a bear!"

And now she did look glorious and self-possessed to Aldous as she sat opposite him at that small round table, which was just fitted for four. He told her so when the meal was finished, and they were following the Blacktons into the front room. Blackton had evidently been carefully drilled along the line of a certain scheme which Peggy had formed, for in spite of a negative nod from her, which signified that he was to wait a while, he pulled out his watch, and said:

"It isn't at all surprising if you people have forgotten that to-morrow is Sunday. Peggy and I always do some Saturday-night shopping, and if you don't mind, we'll leave you to care for the house while we go to town. We won't be gone more than an hour."

A few minutes later, when the door had closed behind them, Aldous led Joanne to a divan, and sat down beside her.

"I couldn't have arranged it better

myself, dear," he exclaimed. "I have been wondering how I could have you alone for a few minutes, and tell you what is on my mind before I see MacDonald again to-night. I'm afraid you will be displeased with me, Joanne. I hardly know how to begin. But—I've got to."

A moment's uneasiness came into her eyes as she saw how seriously he was speaking.

"You don't mean, John—there's more about Quade—and Culver Rann?"

"No, no—nothing like that," he laughed, as though amused at the absurdity of her question. "Old Donald tells me they have skipped the country, Joanne. It's not that. It's you I'm thinking of, and what you may think of me a minute from now. Joanne, I've given my word to old Donald. He has lived in my promise. I've got to keep that promise—I must go into the North with him."

She had drawn one of his hands into her lap and was fondling it with her own soft palm and fingers.

"Of course, you must, John. I love old Donald."

"And I must go—soon," he added. "It is only fair to him that you should," she agreed.

"He—he is determined we shall go in the morning," he finished, keeping his eyes from her.

For a moment Joanne did not answer. Her fingers interweaved with his, her warm little palm stroked the rough back of his hand. Then she said, very softly:

"And why do you think that will displease me, John, dear? I will be ready!"

"You!"

Her eyes were on him, full, and dark, and glowing, and in them were both love and laughter.

"You dear silly John!" she laughed. "Why don't you come right out and tell me to stay at home, instead of—of—'beating round the bush'—as Peggy Blacktop says? Only you don't know what a terrible little person you've got, John. You really don't. So you needn't say any more. We'll start in the morning—and I am going with you!"

In a flash John Aldous saw his whole scheme shaking on its foundation.

"It's impossible—utterly impossible!" he gasped.

"And why utterly?" she asked, bending her head so that her soft hair touched his face and lips. "John have you already forgotten what we said in that terrible cavern—we told ourselves we would have done if we had lived? We were going adventuring, weren't we? And we are not dead—but alive. And this will be a glorious trip! Why, John, don't you see, don't you understand? It will be out honeymoon trip!"

"It will be a long, rough journey," he argued. "It will be hard—hard for a woman."

With a little laugh, Joanne sprang up and stood before him in a glow of light, tall, and slim, and splendid, and there was a sparkle of beautiful defiance and a little of triumph in her eyes as she looked down on him.

"And it will be dangerous, too? You are going to tell me that?"

She came to him and rumbled up his hair, and turned his face up so that she could look into his eyes.

"Is it worse than fever, and famine, and deep swamps, and crawling jungles?" she asked. "Are you going to encounter worse things than beasts, and poisonous serpents, and murderous savages—even hunger and thirst, John? For many years we, dared those together—my father and I. Are these great, big, beautiful mountains more treacherous than those Ceylon jungles from which you ran away—even you, John? Are they more terrible to live in than the Great African Desert? Are your bears worse than tigers, your wolves more terrible than lions? And if, through years and years, I faced those things with my father, do you suppose that I want to be left behind now, and by my husband?"

So sweet and wonderful was the sound of that name as it came softly from her lips, that in his joy he forgot the part he was playing, and drew her close down in his arms, and in that moment all that remained of the scheme he had built for keeping her behind crumbled in ruin about him.

Yet in a last effort he persisted. "Old Donald wants to travel fast

—very fast, Joanne. I owe a great deal to him. Even you I owe to him—for he saved us from the 'coyote.'"

"I am going, John."

"If we went alone we would be able to return very soon."

"I am going."

"And some of the mountains—it is impossible for a woman to climb them!"

"Then I will let you carry me up them, John. You are so strong—"

He groaned hopelessly.

"Joanne, won't you stay with the Blacktons, to please me?"

"No. I don't care to please you." Her fingers were stroking his cheek.

"John?"

"Yes."

"Father taught me to shoot, and as we get better acquainted on our honeymoon trip I'll tell you about some of my hunting adventures. I don't like to shoot wild things, because I love them too well. But I can shoot. And I want a gun!"

"Not a toy—but a real gun," she continued. "A gun like yours. And then, if by any chance we should have trouble—with Culver Rann—"

She felt him start, and her hands pressed harder against his face.

"Now I know," she whispered. "I guessed it all along. You told me that Culver Rann and the others were after the gold. They've gone—and their going isn't quite 'skipping the country' as you meant me to understand it, John Aldous! So please let's not argue and more. If we do we may quarrel, and that would be terrible. I'm going. And I will be ready in the morning. And I want a gun. And I want you to be nice to me, and I want it to be our honeymoon—even if it is going to be exciting!"

And with that she put her lips to his, and his last argument was gone.

Two hours later when he went to the coulee, he was like one who had come out of a strange and disturbing and altogether glorious dream. He had told Joanne and the Blacktons that it was necessary for him to be with MacDonald that night. Joanne's good-night kiss was still warm on his lips, the loving touch of her hands still trembled on his face, and the sweet perfume of her hair was in his nostrils. He was drunk with the immeasurable happiness that had come to him, every fibre in him was aquiver with it—and yet, possessed of his great joy, he was conscious of a fear; a fear that was new and growing, and which made him glad when he came at last to the little fire in the coulee.

He did not tell MacDonald the cause of this fear at first. He told the story of Mortimer FitzHugh and Joanne, leaving no part of it unbarred, until he could see Donald MacDonald's gaunt hands clenching in the firelight, and his cavernous eyes flaming darkly through the gloom. Then he told what had happened when the Blacktons went to town, and when he had finished, and rose despairingly beside the fire, Donald rose, too, and his voice boomed in a sort of ecstasy.

"My Jane would ha' done likewise," he cried in triumph. "She would that, Johnny—she would!"

"But this is different!" groaned Aldous. "What am I going to do, Mac? What can I do? Don't you see how impossible it is! Mac, Mac—She isn't my wife—not entirely, not absolutely, not in the last and vital sense of being a wife by law! If she knew the truth, she wouldn't consider herself my wife; she would leave me. For that reason I can't take her. I can't. Think what it would mean!"

Old Donald had come close to his side, and at the look in the gray mountaineer's face John Aldous paused. Slowly Donald laid his hands on his shoulders.

"Johnny," he said gently, "Johnny, be you sure of yourself? Be you a man, Johnny?"

"Good heaven, Donald. You mean—"

(Continued in May 26th Issue)

THE WRONG MAN

A rookie was reading an article about the Kaiser which compared him to Nero. "Who was Nero, Bill?" he asked a fellow rookie. "Wasn't he a man that was always cold?" "Naw," was the reply, "that was Zero, another guy altogether."

A NORWEGIAN BOY'S ESSAY ON THE FROG

"What a wonderful bird the frog are When he stand he sit, almost; When he hop, he fly, almost; He ain't got no sense, hardly; He ain't got no tail, hardly either. When he sit, he sit on what he ain't got, almost."

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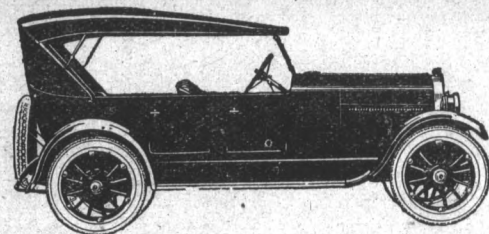
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WHEN WRITING TO ADVERTISERS PLEASE MENTION MICHIGAN BUSINESS FARMER

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"The Farm Paper of Service"

AGRICULTURAL OUTLOOK GOOD

WASHINGTON, May 5, 1923.—The general agricultural outlook now is probably the best it has been in three years says the United States Department of Agriculture in its regular monthly review issued to-day. The domestic market for farm products is reported to have improved measurably as a result of increased prosperity in urban communities, but that the prospective foreign demand for American farm products is not as good this year as it was a year ago.

"When labor is fully employed and wages high," the department says, "farm products find a readier sale and better prices. This is what has helped to sustain the price of hogs this spring, likewise lambs, cattle, dairy products, eggs, and certain vegetables."

THE SAME OLD STORY

OF course it had to happen! They had been in session so long, and tried to do so much!

But Governor Groesbeck vetoed the gasoline tax bill, (which had passed both houses with enough votes to prove that the legislature knew what they wanted) and of course, any measure which he would sponsor must be assassinated and promptly buried by the "bitter-enders."

And that was exactly what did happen in Lansing last Saturday.

The House voted down the Smith Automobile Weight Tax Bill by a vote of 56 to 41, and in so doing they sacrificed their own two pet measures, the Byrum Income Tax and the Meggison Primary School Fund Bill, because everyone knew that if the House voted down the Weight Tax Bill, the Senate would get immediate revenge in refusing the passage of the two bills mentioned.

Now it appears that in order to complete, or even to keep abreast of the highway requirements of the state, it will be necessary for the Governor to call an extra session, and before long, because the people of Michigan will demand that the expensive road system now completed be maintained, and that some of the uncompleted units in the state trunk lines be filled in.

The Business Farmer is still convinced that the most profitable of public improvements is the building of good roads, and that the maintenance of these roads is important, but we are equally convinced that some method of taxation must be arrived at, which will make those who use the roads pay the greater part of their upkeep, whether this should come from a gasoline tax, as it does in a great many states, or from an increased weight tax, is in our opinion of lesser importance than that we tolerate no costly procrastination in our good roads program.

Whether we must have a gasoline tax or a weight tax to make the automobile owner pay the greater part of the good roads tax, the fact remains that the people of Michigan will not permit this vital question to go unanswered, and it is regrettable that to answer it, the state must now be put to the expense of an extra legislative session, simply because of stubbornness.

DOCTOR FRIDAY STILL OPTIMISTIC!

DAY by day, in every way, Dr. Friday, President of the Michigan Agricultural College, becomes more convinced that the present trend of farmer boys and farm labor to the city,

attracted there by the high prices paid in the automobile and other industrial plants, will in the end rebound to the improvement of agricultural conditions in Michigan and other states.

An interview just published quotes Dr. Friday as saying that present conditions "are merely verifying what I have been predicting all along, that the balance will soon be restored between the cost of what a farmer has to buy and the price he will receive for his products. And they indicate, also, that the coming season is to be one of great prosperity for the young men who are willing to remain on the farm and can produce within their own labor resources; granting, of course, that they grow crops that are in demand here in Michigan."

Probably no man in America enjoys a higher reputation than Dr. Friday as an economist, and after all, an economist is only a prophet of future conditions, based on past experience. Michigan is indeed fortunate to have such a man at the head of its agricultural college, and whether or not the average farmer has in the past believed in watching foreign markets and crop conditions throughout the world, he is doing so now after the disastrous experience which pitched him headlong into the basement of farm produce prices the past two years.

The encouraging sign is, that agricultural products are showing an increase in export, but this does not mean that the farmer in Michigan should grow any crop which depends on the export market for its sale.

Michigan is rapidly developing as an industrial state, as Dr. Friday pointed out in a recent article which we reprinted completely in The Business Farmer. There is no longer any need for our farmers trying to compete as wheat growers with Argentine and the Ukraine.

There is a market, in Detroit and other industrial centers of Michigan which are growing at an unprecedented rate, for a great proportion of the agricultural products of the state. Already a milk shortage in the Detroit area is promised should we have a dry summer.

The hopeful thing about all of this is, that the farmers of no state in America, are in a better position for making money out of their farming operations in this year, 1923, than are the farmers of our own state!

REFORESTATION IN MICHIGAN

AS Senator James Couzens so ably states on page four of this issue, one of the most necessary guarantees for the future prosperity of the state of Michigan, can be secured through reforestation.

Fortunately, the Michigan Legislature, just before closing its hectic session, joined hands in unanimously passing the Meggison-Sargent Bill, which provides for a deferred tax on forest growth.

Under the terms of this bill the owner of any timber land, or lands chiefly valuable for the growth of timber, within this state, may apply to the Commissioner of Agriculture to have such property set apart for the growth of timber. If, after investigation his application is approved by the Commissioner of Agriculture the land shall thereafter be taxed at the rate of 5 cents per acre annually.

After a twenty-five year period, the timber would be subject to cutting, under general control of the Commissioner of Agriculture, who would guard against wasteful methods. At this time the owner of the timber would be assessed a tax equal to 25% of the stumpage value of the timber cut, to be paid into the state treasury. There is a provision in the bill which would prevent it from working a hardship on any local unit, as it provides that "The State Administrative Board may, in its discretion, advance to the township in which any forest preserve lands lie, a sum each year out of the general fund of the state, as will compensate them for the amount of taxes which would be collectible from any such forest preserve lands had they not been registered."

It is seldom that a legislative body can be made to look so far ahead as twenty-five years, and Michigan has taken a forward step which will place it among the leaders of conservation in the United States.

THE CASE BILL PASSED

THE Business Farmer is being given some credit at Lansing for its last minute appeal in favor of the Case Bill to prevent unlawful discrimination in the purchase of potatoes, and very wisely an amendment was made which makes it include grain and beans. That our readers made themselves known at Lansing is proven by the fact that this bill passed the House by a vote of 85 to 3.

As was pointed out in the last issue this bill was intended primarily to protect the cooperative elevators and farmers marketing organiza-

tions from the unfair competition practiced by the old line dealers. It has been the common practice by a few unscrupulous dealers to temporarily pay more than the market price in a town where a small or cooperative elevator was trying to get a start. These dealers were able to pay this higher price, for a short time, in a few localities, because they were paying the farmer much less than the market price in localities where they had no competition.

The only thing that will make this law effective is for the farmer to report cases which infringe on this law. There will be no police force or system of inspection to make this law effective other than the direct report of the officers of marketing organizations or their members. This is, in our opinion, one of the most practical and helpful laws passed for the benefit of the farming business in Michigan by the present legislature.

FAIR CARNIVALS ARE EXPENSIVE

OUT in Oklahoma the Agricultural College made a survey of that state which showed that 41 County fairs had carnivals as part of their attractions last fall. These carnivals furnish the complete midway, a whole street of attractions on the Michigan State Fair midway pany and travel as a unit. These 41 carnivals took \$114,800 out of the counties in which the fairs were held.

There are no available figures showing the number of these amusements held in Michigan or the amount which they take out of the country, but we would venture the statement that more than this amount was collected by the attractions on the Michigan State Fair Midway alone last year.

We do not hope to see the midway abandoned on our state or county fair grounds for the very obvious reason that they contribute largely to the support of the fair, and it will take a daring fair management to eliminate this or any other profit producing attraction.

The responsibility rests with the management of the fairs. Every feature of every show or attraction on the midway should be investigated prior to and continually during the fair by a personal representative of the management.

Too often everything appears all right for the first day or two, but if the crowds are not coming as they should and the fair management has been appeased, the Barker passes along the word, "the sky is the limit" and soon the sign hangs on the outside of the tent "standing room only!"

We want to see clean, entertaining, and instructive fairs in Michigan this fall, and we make "clean" our first requirement because we believe that it is the feature in which most of our fair have been lax.

THE SAVING IN STANDARDIZATION

THE automobile manufacturers of America have taught the industrial world a lesson which is so far-reaching in its importance to all users of machinery that it cannot easily be measured.

The automobile manufacturer proved that by standardizing every part down to the smallest bolt or screw the machine could be manufactured at half the cost where standardization was not practiced. The automobile today is an outstanding example of what standardization has done. Compare, if you please, what a thousand dollars would buy ten years ago and you will find that your dollar today, while it will purchase only a fraction of what it would in 1913 in clothing, shoes, or what-not, will buy much greater value in an automobile or truck.

The International Harvester Company have just made the announcement that for the past two or three years they have been diligently reducing every line of their machinery to the fewest number of pieces and a standardization in parts which makes it possible to secure repairs on the shortest notice.

If the manufacturers of farm machinery generally are following the lead of the Harvester Company and bolts, nuts, screws and the hundred and one small parts of farm machinery are being made standard and thus interchangeable it will be one of the best contributions ever made to the farming business.

THE SUGAR STRIKE

WOMEN'S organizations in each state have begun a buyer's strike on sugar, the same as was practiced during the war. Sugar has climbed over the ten cent mark and President Harding has approved the efforts of the agitators to thus reduce the consumption of sugar.

We have an idea that the strike will get nicely under way about the time the beet growers have a big crop to market. At least we predict that the manufacturers will report such a condition on or about the date set to determine the price paid for the farmer's beets!

PUBLISHER'S DESK

AMERICAN HORTICULTURE COMPANY QUILTS

MANY Business Farmer readers have tried to collect claims against the American Horticulture Company, of Des Moines. We have had a large number of these claims on file, and we are sorry to announce that the company has gone into bankruptcy and we are placing these claims in the hands of F. E. Campbell, of Des Moines, who has been appointed receiver.

The American Horticulture Company opened up a spectacular business career a couple of years ago and advertised in an unusual manner with puzzle pictures. They received more business than they could handle, and then the depression period struck them. Before they could adjust their affairs, they were hopelessly in arrears and altho they struggled along, hoping to be able to take care of their creditors this spring by supplying stock to compensate their customers, they had to quit.

Fred Wright, the president of the American Horticulture Company, started another company, known as the Fred Wright Company, which tried to make enough money to pay off the indebtedness of the American Horticulture Company, but had little success.

It is understood that the liabilities are around \$75,000 and the assets only a few thousand, so our hope of satisfying our readers claims is meager indeed. Luckily none of the individual claims are large.

STOCK TO PAY FOR ITSELF!

Dear Mr. Slocum: Do you know anything about — Coal Mining Company, at —, Michigan? An agent of theirs came here with one of our friends who claimed he had been to the mine and that they were all right, and wanted us to sign a note for stock in the company. The agent claimed we would never have to pay a cent out as the company was paying 2% a month dividends, so my husband signed a note for 100 shares, \$1,000, but I did not sign the note. We have 40 acres. We have a joint deed of the place. Now they claim the agent was a fraud, and that he should not have promised the dividends. We have witnesses that he said they were paying dividends, also that we would not have to pay any money out, that the dividends would pay the note and interest. That was the 19th of January. We have not received any shares. Is there any way of getting the notes back, as I think they are a fraud? Will you please investigate? Please let me know by private letter.—Mrs. P.

I have written my reader that she had best place this claim in the hands of a local attorney immediately, because it will be money well invested to have legal protection from such sharks. What a pity it is that people will swallow such exaggerated statements as the foregoing.

Does it not stand to reason that if a company could pay 2% per month, or even 1% per month, that their entire stock issue would be taken up in a few minutes in any money mart?

Many times a legitimate manufacturing institution will have to secure additional capital for its business and because there is an element of speculation involved they must go to the general public to raise the funds. Many men have some savings which they can afford to speculate with, wisely or unwisely, but the minute a stock salesman starts making an extravagant claim, he ought to be shown the door, and mighty quickly, too.

"THAT MAN SILVERMAN!"

A couple of years ago the Business Farmer began receiving complaints regarding a man named Silverman on the Detroit market, who was advertising for produce, accepting it and then refusing to pay for it, through one subterfuge or another.

Securing no satisfaction we took it up with the Post Office Department, because most of the business had been done by mail, and although no criminal action was secured, apparently this man has disappeared from

local haunts. This will answer one or two of our readers who have recently inquired about "that man Silverman."

WARREN McRAE'S FARM AGENCY

A reader advises that she has had a letter from the Chief of Police, Loganport, Indiana, in which he advises that he could find no office of the Warren McRae Agency, that McRae was making his home at a rooming house, and that he advised her not to send any money as "they were after the money and probably would not sell the farm." Have any of our readers heard from McRae lately, or has the Business Farmer made it too hot for him to do business in Michigan?

FROM ONE UNFORTUNATE

Having read in your excellent paper the way in which you have helped your readers, I am writing to see if you can help us. We read Warren McRae's ad and thinking we might dispose of our farm we did not wish to go to the city but the farm is too large for one man to work and it is next to impossible to get help, we wrote to him and he answered saying there were several farmers in his state who wished to look at Michigan farms so we sent him \$10 as a listing fee when we received the communication which I will inclose and naturally we have heard no more from him. We realize now how foolish it was to trust some one we knew nothing about and am sorry your warning came too late for us. I think we have learned so next time we will write you for advice first. Am simply writing to ask if any thing can be done to get us back our ten dollars. Please do not publish our name, we don't wish our friends to know we were so "gullible."—S. B., Washtenaw County.

WORKERS' SERVICE BUREAU, JACKSONVILLE, FLA.

Regarding this and other similar companies which advertise to pay a fixed sum for home addressing, and other home work, let me repeat my advice, to have nothing to do with a company which requires a down payment in order to secure some sort of employment.

RESULTS!

Received your card that you had taken up my claim and yesterday received my check, and a letter which I am enclosing. I am very thankful for your service. We have been readers of your wonderful farm paper for many years and think it a necessity in every farm home. I again thank you for your trouble, as I am positive I should not have received my money without your assistance.—Mrs. W. H., Harvard, Mich.

You surely get results when you go after things. I just got your card and by the same mail got check paying back my money they have kept three months. We surely appreciate what you are doing for your subscribers and surely expect to always take your most excellent paper.—Mrs. A. J. P., Jones, Mich.

I want to thank you for the prompt settlement made me. They did not hesitate to come to a settlement after receiving your letter. I am glad there is a way to wake them up. Thanking you again, I remain, Mrs. A. J. V., Gaylord, Mich.

I wish to thank you again for the quick settlement you secured for me from three different firms, during the past winter, which had owed me a great sum of money. Mrs. H. M. W., Fennville, Mich.

In regard to my camera, I received it after about three weeks delay. As they could not find my own they sent me a new one. Thank you very much for your services.—Mrs. L. F., Avoca, Mich.

I have today received the enclosed letter from Dr. containing check for \$4.65. Thank you very much for your trouble.—J. W. H., Chase, Mich.

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Deep down in your own mind you know that Federal first mortgage real estate bonds are undeniably of superior calibre and safety.

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No commissions—Low interest rates. No stock investment. Unusually prompt and satisfactory service. If your loan will meet these requirements, write us.

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\$7.50 After 30 Days Free Trial

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



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

No Money Down!

Catalog tells all—write.

Caution! U. S. Bulletin 201 shows that vibration of the bowl causes cream waste!

The Melotte bowl is self-balancing. Positively cannot get out of balance therefore cannot vibrate. Can't remix cream with milk. The Melotte has won 24 Grand and International Prizes.

Catalog FREE

Write for new Melotte catalog containing full description of this wonderful cream separator and the story of M. Jules Melotte, its inventor. Don't buy any separator until you have found out all you can about the Melotte and details of our 15-year guarantee which is infinitely stronger than any separator guarantee. Write TODAY. How many cows do you milk?

The Melotte Separator, H. B. Babson, U. S. Mgr., 2843 W. 19th Street, Dept. 33-05 Chicago, Ill.

Runs so easily, bowl spins 25 minutes after you stop cranking unless you apply brake. No other separator has or needs a brake. Bowl chamber is porcelain lined.

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30x3	\$1.90	.90	32x4	\$3.75	\$1.95
30x3½	2.00	.90	32x4½	3.75	1.95
32x3½	2.50	.90	34x4	4.00	1.95
31x4	2.75	.90	35x4	4.25	1.95
32x4	3.00	1.40	36x4	4.25	1.95
33x4	3.25	1.40	35x5	4.25	1.95
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SEND ONLY \$1.00 for each tire shipped. Balance C.O.D. Sent section unwrapped for inspection. Tires guaranteed eight months. Another tire given at half price for any not perfectly satisfactory. Business and Agents wanted everywhere. WHITE-BUSH ORDERS.

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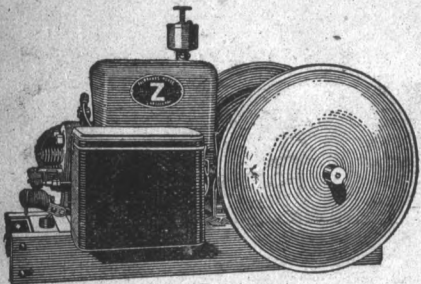
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SEE PAGE 28

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34x4	11.95	1.95
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What the Neighbors Say



MUCH PESSIMISM—SOME TRUTH

MAKING it easier to slide deeper in debt is not going to cure a chronic disease gnawing at the very vitals of our agriculture, the cradle of a free people and the very first and last stand for hungry bellies. No loan or increased acreage yield will right the situation. What is needed is a cure not a deadener.

With agriculture the real giant in a business sense, and no voice in setting the price upon its products, but a never failing cost plus price upon his every purchase; bled white by marketing tolls is a real complicated disease that will not yield to cocaine treatment from Washington nor even Mr. Coue's suggestions.

With no voice in regulating the price of their products; forced willfully to supply their wants in a home market protected by the highest tariff barriers in the world—thanks to the farm block support for which the farm world received a string of glass beads. The farmers are skinned from heel to head by the very system they helped to create with their vote.

The selling price of our products, in most cases produced by robbing the soil, contending with frosts, drowths, cyclones, floods and bugs is governed in the main by the selling price in the world's competing market under normal conditions, while our protected industries and transportation interests depend mainly upon the home market for its fat picking.

The only hope for brief periods of prosperity for our farm world is in foreign crop failures.

As our farm world must rely upon misfortune abroad for its occasional silver lining, one need not wonder why the farm game is losing its lure.

How a tree is to remain vigorous and bear fruit annually while continually starving its roots is just a little beyond my think tank.

Some how or another, the word "square deal" should carry a real meaning—and a jail sentence even in legislative halls when using it for bunk purposes.

Being half Irish, I am naturally an optimist—but not on the land question, unless I had reason to believe there was a little oil or mineral below.

I can not help but believe, unless some Moses appears upon the scene real soon, and this does not mean a plaster paris farmer, the peasant

stage in America is just around the corner, and for this decaying situation, no one class of voters is more responsible than the cock-sure farmer, buncoed by the magic word "protection" in the childish belief that all property is distributed down from the top layers of society.

I haven't the least doubt but what this same view point was held sacred by old King Tut's well disciplined field slaves.—John G. Krauth, Presque Isle County.

WOW!!

THE Editor The Business Farmer—Yes, the gasoline tax went down in defeat, tho not inglorious. It was Groesbeck and Detroit who made inglorious asses of themselves. Two-thirds of the population of Michigan stood for the gas tax but Groesbeck and Detroit bullied and bossed till it was defeated.

If the weight tax becomes a law, our car stays in the garage till Michigan has a decent form of government; or we can move. We prefer to move.

Michigan boasts of progression, intelligence and good government. I wish we might see the effect of these fine qualities somewhere.—G. E. Wise, Hart, Mich.

A FOOL TARIFF TO FOOL FARMERS

NURSERYMAN Harry S. Cooper, of Wisconsin, says in the last issue of M. B. F. that practically all we need is the scum of Europe to work on our farms and we will all sit in the shade as farmers and just pick our teeth and count our money.

Now, let's look at the actual results of the present fool tariff, for and against the farmer. Hardly ten days ago the experts of the Farm Bureau Investigation Committee gave us in the Country Gentleman the exact facts.

On account of the tariff it costs the farmers of America a round million dollars a day for excess cost of manufactured goods, over a year ago. That means the farmers are "skinned" over two hundred million dollars a year on this "hos-trade."

Now I hear some protection tariff farmer say, "Oh! that supports the government," when the fact is any high school boy, even with Republican parents, knows a prohibitive tariff, (and our present one is the highest and most prohibitive every passed) never supports our government because nearly nothing moves our way under a prohibitive tariff, which

Uncle Rube Spinach Says:



I'M AGIN SIR WM. ORPEN'S JUDGEMENT

WHEN we speak of woman's beauty there's quite a considerable to think about. Beauty—real beauty is a thing 'at natur' gives to a woman jest the same as she gives to a flower or a bird or anything 'at's as natur' makes it.

Sir William Orpen, great portrait painter of Paris, sez there's no beautiful women. "In my twenty-five years of painting," he sez, "I've never seen a perfect model nor a really pretty woman."

"Ten or fifteen years ago artists had but little trouble to select paintable arms an' legs, but now they have to search for weeks," he sez.

Well now, I wonder if arms an' legs is all there is pretty 'bout woman? Why I can show ol' Bill Orpen more beautiful women 'an he ever dreamed of—not only here in my own little town but in other places in our good ol' state. Beauty does not consist of arms an' legs entirely—it's a thing that can exist without 'em.

I am aware 'at most all the beauty contests, as shown in the papers durin' the past two or three years, has consisted of arms an' legs—that's 'bout all some young women care to have pictured these days—but friends the real beauty of women is more 'an that.

When you see the lovelight in their eyes, the motherhood in their faces—the real womanliness 'at God has given, pictured in every line of their face and features, then you've got real beauty! An' I can see it

every time I look on the street. Maybe some of 'em silvered with age, some just a youthful glow, nevertheless, in the lovelight, the motherhood, shine out they are beautiful. Maybe they have arms, maybe legs, I never stop to think of it—it's that something that age can't take off nor paint put on 'at makes women altogether lovely. An' I know so many 'at are jest that way—wonderful women an' beautiful 'cause they live as God intended 'em to live; living for the purpose they were created for an' doin' the best they can at it.

Now maybe Bill Orpen knows a lot 'bout beauty but in my foolish judgement he don't know much 'bout the beauty of women if he judges 'em only by their arms an' legs. An' yet I'm wonderin' if some of our young women ain't kinder got some of his notions? The way they've been displayin' legs an' arms for two or three years, I'm most decided to think 'at's 'bout all they've got. An' yet I do see many most beautiful an' lovely girls, girls 'at dress nicely an' becomin'ly an' show the real beauty that lies within. They know they have somethin' besides arms an' legs to recommend 'em an' they really are beautiful in every sense of the word.

We don't care what William Orpen of Paris sez, do we women friends? He don't know everything. An' let me tell you something: the real beautiful women of the next few years will be the ones 'at keep 'emself as natur' made 'em.—Cordially yours, UNCLE RUBE.

gives the manufacturer's Union, (ten times more expensive to farmers than any labor union) all the monopoly they can wallow in and "wallow" is the only fit word, for if there is a bigger hog on earth than our protected manufacturer under this Harding Administration, then as the Judge says, "May the good Lord have mercy on your soul."

Of course Harding was elected largely by women who though keeping out of the front door of the League of Nations was our only world-salvation, and now he's at the back door; but Hardings campaign-millions came from the protected Manufacturers' Union of the U. S. A. and today they get those millions back every week from Friend Farmer, in exchange for political "soft-soap." How will you have your "soap," boys?—C. H. Merrifield, Van Buren County.

PRESENT CONDITIONS AND A POSSIBLE (?) REMEDY

IKNEW there was something that I missed when I got home. It comes to me now, when I received your card that it was the M. B. F. Sure thing, I must have it. Send it along and send me the bill if I'm in arrears, it will be paid.

It is a long time since I heard from you or you from me, so I'll send you a few thoughts on the signs and conditions of the times and the future outlook, for our people and the country. We all know that we are in a peculiar condition—financially, politically, and morally. We can not all agree upon the different questions that arise from time to time, we all know, we are in a precarious condition and it doesn't appear to be getting better fast, at least not for the farmers and the producers. There seem to be a lot of would be helpers—but when you come to analyze their mode we discover, it is only to get us in deeper. They promise legislation to help the farmers. You get that from all of the office-seekers, and the papers from all over the country. But when you come to find it out the farmers must pay the bill, in the end, with interest.

The question is: "What or where is the trouble?"

In the first place interest on money is too high, and our circulating medium is not based on actual products of labor and necessities of life, which is the only actual basic wealth of the country.

Lincoln said "this nation can not exist one half slaves." We are now 90 per cent or better slaves under the bonding system, which not only enslaves us, but the coming generation, for they will have to shoulder and to pay our enormous bonded indebtedness. Now this does not only apply to the farmers, it applies to all our citizens, excepting a few speculators, financiers and grafters.

Is it possible that the people of these United States, the descendants of those men that liberated this land from a foreign yoke, and wrote that wonderful instrument of Independence and afterwards, defended that act by driving from our shores the oppressors who sought to enslave them. Are we now willing to let a group of unscrupulous grafters and profiteers enslave us and our children? Is it possible that we have so degenerated that no one among us dare to stand up for the right of the people? Are there no Washingtons or Lincolns or any of that liberty-loving spirit left in the land.

Is it possible we are all willing to stand by and see the people robbed of the fruits of their labors and products of this wonderful country by a few speculators and financiers, the majority of whom, do not even spend their time or money here at home? As a rule they travel abroad, live among royalty in foreign lands. They spend our money with lavish hand in Paris, Rome, London and Monte Carlo. Sure, they have their agents and lobbyists here. They keep well posted and their business interests are well looked after and protected. We have been looking back at the monarchical form of government and congratulating ourselves on the fact that we are living under a government by the people and for the people, when in reality we are at the mercy of a more cruel, merciless and unscrupulous bunch of profiteers than any monarch that ever did exist. They employ all manner of nefarious schemes and ways, bribery and even murder is not too low for them to carry out their schemes. The news-

papers which as a rule, they either own or control and by that they practically control our elections.

Now let us look, I'll give you a few of my thoughts along remedial lines in it there may be some repetitions, but some of it surely needs repeating, so that our people may get posted on the actual existing conditions.

First, let us consider a few facts relating to our commercial and financial business—of the nation. During my 50 years of business experience I found that interest on money was the slickest and easiest way of getting it. All that is necessary is to get good security and then you can sit right on you haunches and make a fine living and plenty of money, without producing a single thing, except some trouble for the other fellow—for if you are a good money lender and collector your game is to get all you can, and if you get the right fellows in the proper shape it is your business to profit by their misfortunes. Now that doesn't only apply to the individual money lender, that is the game of all our big financial concerns. Our financial resources are controlled by so very few, that it is entirely within their power to withhold and depress credit. In other words, to make money dear to the people that must have it to do their business with.

This brings me to a little investigation as to the total indebtedness of this nation.

Our debt on July 1st, 1921, was \$23,427,772,447, or a per capita of \$216.75. Now our interest bearing debt on that date was \$23,738,900,084. The annual interest charges are \$1,017,500,000. Next comes the different states, bonds, and indebtedness which amounts to \$1,167,204,809. Now, these are our state and national indebtedness and does not include municipalities, such as counties, townships, highways, schools, cities, corporation bonds, etc. Next take into consideration the real estate mortgages, private and individual obligations, which will amount to many times the National and state indebtedness above referred to. Naturally, we might commence to wonder where the money is going to come from to pay even the interest, let alone the principle. It must all come out of the producer, in some shape. Now, as near as I have been able to find out by investigations, we have in actual money \$1.78 for each \$1,000 of our actual debt. Now, look at that, surely the thing is commencing to look like a crazy-quilt. If we were foreclosed and sold out, at our assessed valuation and proceeds pro rated among the creditors, that is to say, if we took all the money in the land, our creditors could only get \$1.78 on every \$1,000 that we owe. (That is on a single standard measuring our wealth by gold.) Now, with such a small amount of actual money to do such an enormous amount of business, it has become an easy matter for a comparatively few to control the finances of this nation, and practically speaking, the entire civilized world has been enslaved through that system. We have become in bondage to such an extent that we couldn't pay the interest with actual cash (gold) for three months, and where has this tremendous debt fallen? What class of our people must pay? The answer, of course, is the producers, and actually we are not paying it in money, it is on paper. It is not a matter of good headwork and fine bookkeeping by the money lenders.

Now you can perceive, the producers have got some tall hustling to do. I presume that everybody that has studied upon this subject have some ideas of a remedy, I know I have and of course it is a radical proposition, but sooner or later some different system will have to be adopted. We are not going to get out of this mire by getting deeper in debt. This hollering about giving the farmers more credit will only bury him deeper. Now, I'll throw out one or two suggestions, which in my humble way of thinking might let us down a little easier and not break all the bones in the carcass, by a sudden drop like Germany got, which before that time a few, years ago was the richest and most prosperous country. I had the pleasure, a few years before that happy thought struck them, that they were the mightiest power on earth, to travel through that wonderful country and I thought something like Roosevelt, but, of course,

I didn't get the chance to tell his ribs over there, that I thought he could lick the world, and I guess Roosevelt did and he believed him, and, of course, "Down went McGinty" but going back to my remedy for our ills—First, get the law upon our statute books, a law strong enough to make it a criminal offense equal to the crime of highway robbery to hereafter charge over 3% per annum on any kind of indebtedness. Have that law made broad enough so that by no hook or crook anyone could hereafter make contracts in any way conflicting therewith.

Now, that surely would be royalty enough for them lords who have not produced even a fraction of their own wealth. Now, you may say, you wouldn't get money enough to do business with at that rate. To that I will say, establish warehouses and elevators throughout the length and breadth of this great country, wherein to store our staple grains and produce. Issue warehouse certificates not only for the produce but for the warehouse if necessary, and make them a legal tender in the realm and then let the speculators play with the gold on the outside if they want to. Now this is not a new scheme at all, as a matter of fact, it is as old as the Bible. In the time of King Pharaoh and Joseph, it was tried out, and afterwards during the time of King Frederick the 7th of Denmark, along about the year 1840. It was carried out in a

very successful manner along the very lines alone stated. It was the beginning of the prosperity of that little country. Now the actual basic wealth of a nation is its force of labor, its raw material and its ability to produce the necessities of life.

Now, why should not our wealth be based upon those things? But as it looks to me, our house is built upon the sand and if we do not look after it and repair the foundation it might be washed away.

Now, you think that I, myself, am in some financial difficulty, but that is not the case at all. I have benefited to some extent financially by the existing conditions, but I did not really understand what the final results would be and from my point of view it does not look bright. Think this over and improve upon it and as Crabtree says, "Let us help one another." Success to your valuable paper.—Chas. Kerr.

KILL GAME AND POULTRY-KILLING BIRDS AND ANIMALS

THIS is the season of the year when a few days spent in shooting game and poultry-killing birds and animals will repay the effort later on. If farmers, trappers and sportsmen would concentrate on a few bad species, the chief natural enemies of useful and game birds, and poultry, would receive such a set-back that the annual saving throughout the country would run into millions of dollars.

Among predatory birds, the crow

occupies the worst place. The Board of Game Commissioners of Pennsylvania say that he "destroys individually more birds of all kinds, more birds' eggs and young poultry than any other bird that ever flapped a wing". The great horned owl is another bird of prey, so voracious and destructive to useful wild life that he should be killed. This species destroys annually large numbers of partridges, pheasants, fur-bearing animals, rabbits, other game and poultry. It is especially an enemy of the quail.

Noxious hawks are another species which take a heavy toll from the farms each year. Two of these, Cooper's hawk and the sharp-shinned hawk, which might be called a miniature of Cooper's hawk, are ferocious predatory birds of prey, ranging nearly everywhere throughout the country and the damage they do is estimated, in the aggregate, to exceed that done by nearly all other birds of prey. Remains of wild birds and poultry were found in nearly every stomach of Cooper's hawk, examined by the Biological Survey. When the stomachs of them contained birds, ranging from quail, morning doves and flickers—which are as large as the sharp-skinned hawk itself—down to birds as small as warblers and chickadees.

During the next few months, game birds and other beneficial wild birds will be hatching, and great numbers of them can be saved if their natural enemies are checked now.

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Five Passengers

\$935

f. o. b. Factory



Five Disc Wheels and Nash Self-Mounting Carrier, \$25 additional

The Nash Four five-passenger touring type is a model pre-eminently fitted for the hard work a farmer requires of his motor car. Every inch of it and every unit is fashioned ruggedly to withstand the wear and tear of continuous driving under load over rough roads. Advanced achievements in automobile engineering have increased the vigorous volume of power and at the same time heightened its flexibility, smoothness and economy.

FOURS and SIXES

Prices range from \$915 to \$2190, f. o. b. factory

The Nash Motors Company, Kenosha, Wisconsin

THE STORY OF OUR NATIONAL HYMN

It was a gloomy day in February, 1832, that Dr. Samuel F. Smith, turning over the pages of a German book of songs, came across the English air "God Save the King." He liked the tune.

Half an hour later he produced the words of the national hymn of the United States "America," or, as some called it, "My Country 'Tis of Thee," which he fitted to the melody of "God Save the King."

Dr. Smith was born in Boston, 1808, and was a theological student. It was in his home town, in the old Park Street Church, that his composition was sung in public for the first time. That was on the Fourth of July, 1832.

The words of the great song were written on a scrap of paper that the composer picked up from the table near which he was sitting when he first thought to write them. They are substantially the same today as when he first jotted them down.

Never was "America" recognized generally as a song that greatly inspired patriotism until the opening of the Civil war. Since that time it has been accepted by the world as one of the greatest of national anthems.

Dr. Smith died in 1895 at the age of 87 years.

ANSWER TO PUZZLE IN LAST ISSUE

On man was a broker, another a baker, the third an engineer, and the fourth a grocer.

OUR GIRLS AND BOYS

Dear Uncle Ned—Maybe you don't think I was surprised last Friday when I came home from school and found the letter from you, saying I had won the prize. I could hardly believe it for I had always thought it was hard to win a prize. And, say Uncle, you must have known that I am taking lessons in dress-making. I like the scissors fine and I am sure I will make good use of them. I will close thanking you for the scissors. So, good-bye, from your niece, Katie Prowant, Durand, Mich. —I am pleased to know that the prize was appropriate. Must be some little bird told me what you wanted, eh?

Dear Uncle Ned—I am writing this letter to let you know I would like to join your merry circle, "The Children's Hour." I just adore reading the M. B. F. magazine after my work is done. I am very interested in the continued story, "The Hunted Woman," and can hardly wait for the next issue of the magazine to come. I live 2 miles west from the village of Temperance. Our house stands on a hill. Near the house is an old apple orchard. Across the road is a forest. We gather pussy willows there. I live with my mother and older sister, Mary. I also have two younger sisters. One is called Clara and the other we nicknamed "Snowball." There are five of us children but one is married and lives in Toledo, Ohio. We have two horses, one is called Patty and the other Jim. We also have 3 cows and a heifer. The cows we named Bessie, Jessie and Katie. The heifer's name is Peggy Jane. My mother and my older sister and I do the farm work during the winter and summer while my dad works in town. It is real hard to handle a team of horses and do the work a man is supposed to do, but it is better to be industrious and know how to work than to be lazy. Don't you think so Uncle Ned? I will describe myself and end this letter to you for it is getting too long. I am 16 years old, I was born October 17, 1906, am 5 ft. 3 in. tall. Have dark brown hair, and grayish blue eyes. My hair is bobbed. —Stella Violet Nowak, R. 2, Box 106, Temperance, Mich. —Yes it must be hard for a woman to handle horses and do the work a man is supposed to do, but as you say, it is best to be industrious.

Dear Uncle Ned and Cousins—May I enjoy your merry circle? I am five feet three inches tall, and seventeen years old. I am very much interested in the letters the children write and I would love to hear from some of them. I would surely answer their letters.

Perhaps you would like a descrip-

tion of myself. I have auburn "bobbed" hair, and blue eyes. We have a radio. I think this invention a wonderful thing. Don't you? Ours has a loud speaker. Well I must close now, hoping I hear from some of you very soon. With love to Uncle Ned and Cousins, Ruth Bower, North Branch, Michigan.

—Yes a radio is wonderful. In one evening you can hear talking or music from east, west, north and south, places hundreds of miles apart, while you sit in your own home. I hope some day that every farmer in Michigan can afford one.

Dear Uncle Ned—I wrote about 2 weeks ago and I have received 12 letters giving the answer to that riddle, but one was wrong and her name is Wilma McTaggart. One girl called up on the telephone, her name was Dorothy Casey. If I answered them all I would have to write 12, but I hope you will print this because I cannot answer all of the letters I received and I am going to answer them all in one and I want you to publish, Uncle Ned. The answer to that riddle I asked is "a candle." I will write a story about a trip to Detroit.

When we left Elkton, it was a nice sunny day, but when we got half way between Elkton and Detroit it started to rain real hard, and I saw more than one barn and house that was on fire on account of being

struck by lightning. When we were going to get off the street car we told the conductor where to leave us off and I guess he misunderstood us because after he left us off the street car we had to walk 5 blocks up to my grandma's house. The third day I was there we went over to Belle Isle on a ferry boat and saw many animals such as bear, alligator, ostrich, monkey, and many others. We came back in a bus and when I got home mamma told me to go down to the store and get a bar of soap and some bananas and she gave me 75c. So I took the money and went to a store where some Italians clerked and they could not understand what I meant when I said, "I want a bar of soap and the rest of my money in bananas." So they gave me the soap and 50c worth of bananas and gave me 50c back. When I got home that time, mamma told me to go back and get the rest of my bananas, so I went and got them and when I got home I found out I had \$1 worth of bananas and the soap for 75c. When we started to Detroit it was awful warm weather, but when we got back to Elkton it was cold weather and my uncle was there to meet us with coats for us all because we did not take any and we went to his place for supper and he drove us home in the car after supper. I made a mistake in the letters which I wrote to some of the girls by saying we had to walk one block when we had to walk five. Say,

AIDS TO GOOD DRESSING

RIBBONS were never used more plentifully by the dressmakers than this season. Frocks and jackets are made entirely of wide ribbon fagotted together. Some of the new georgette frocks show countless bands of ribbon by way of embellishment and a very wide, substantial ribbon is often chosen to form the bustle effect on afternoon or evening frock.



ALL PATTERNS 12c EACH—3 FOR 30c POSTPAID

Order from this or former issues of The Business Farmer, giving number and sign your name and address plainly.

ADD 10c FOR SPRING AND SUMMER FASHION BOOK

Address all orders for patterns to Pattern Department THE BUSINESS FARMER Mt. Clemens, Mich.

4342. Fashions Latest Blouse Style—Charmingly developed in figured silk with bindings of crepe satin in a contrasting color, this style shows new and attractive features. It is also a good model for infants, printed georgette or voile. The Pattern is cut in 7 Sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38 inch size requires 2 yards of 36 inch material.

4340. A Popular Model—This is a season of short coats. The style here portrayed will look well with a plaited skirt of plain cloth, or it may be part of a two or three piece suit. Taffeta, figured silk, pongee or linen would be attractive for its development. The Pattern is cut in 7 Sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38 inch size requires 2 1/2 yards of 40 inch material. For collar and vest of contrasting material 1/2 yard is required.

4348. A Popular Suit Style—For Little Boys—This model will be fine for linen, galatea, poplin and jersey. The sleeve may be in wrist or elbow length. The trousers are made with side closing. The Pattern is cut in 5 Sizes: 2, 3, 4, 5 and 6 years. A 4 year size requires 2 1/2 yards of 36 inch material.

4346. A Neat Little Frock For The Little Miss—For this dainty model one may use any of the wash fabrics now in vogue. The sleeve may be finished in wrist- or elbow length. As here illustrated the design was developed in pongee with fancy wash braid in colors for decoration. The Pattern is cut in 4 Sizes: 1, 2, 4 and 5 years. A 4 year size requires 2 1/2 yards of 27 inch material.

4349. A Very Dainty Dress For "Mother's Girl"—Embroidered voile and organdy were chosen for this pleasing model. It is also nice in silk, gingham and crepe. Dotted Swiss and organdy could also be combined for this style. The bertha trimming may be omitted. The closing may be at the centre back, as illustrated or on the shoulders. The Pattern is cut in 4 Sizes: 6, 8, 10 and 12 years. A 10 year size will require 3 yards of one material 40 inches wide. If made as illustrated, 1/2 yard of contrasting material, and 2 1/2 yards figured material is required.

4354. A Pretty Frock For The Growing Girl—Printed crepe and crepe de chine are here combined. One could use printed and plain voile in combination or tissue gingham and linen. The trimming panels may be omitted. The dress slips over the head. The Pattern is cut in 3 Sizes: 12, 14 and 16 years. A 14 year size requires 4 1/2 yards of one material 32 inches wide. To trim with contrasting material as illustrated requires 1 yard.

4338. A Stylish Frock—Here is a smart style in over blouse effect. The girle section is part of the shaped front, which has small inserted pockets at the tab extensions. Tissue gingham in green and white, with bindings of green organdy will be pleasing for this model. The Pattern is cut in 7 Sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38 inch size requires 4 1/2 yards of 32 inch material. The width of skirt at the foot is about 2 1/2 yards.

4331. A Pretty Gown—Here is a very pleasing model, with a new sleeve effect. It is a style that is attractive for combinations of material. Lace and silk, linen and gingham combined would be pleasing. The Pattern is cut in 8 Sizes: 34, 36, 38, 40, 42, 44, 46 and 48 inches bust measure. A 38 inch size will require 5 yards of 36 inch material. To make panel and sleeve draper of contrasting material, will require 1 1/2 yard 36 inches wide or, 2 1/2 yards 18 inches wide. The width of the skirt at the foot is 2 1/2 yards.

Uncle Ned, will you write your address at the top of the Children's Hour, because some of the girls asked me it and I am writing this letter to the M. B. F. I have 4 sisters and no brothers. Their names are: Gladys, Ilene, Hattie and Mary.—Hazel Baker, Elkton, Mich.

—I am glad to print your letter, not just so the cousins can read the answer to your riddle but because it is interesting. My name and address is just Uncle Ned, Michigan Business Farmer, Mt. Clemens, Mich., and a letter with that on will come to my immediate attention. Tell your friends that I shall be pleased to hear from them, will you?

Dear Uncle Ned—This is my first time writing to the Children's Hour. My father takes the M. B. F. and likes it very much. I like to read the letters and so I thought I would write, too. I live on a small farm just a short distance from town and I go to town school and am in the sixth grade. Our room had 100 per cent joined the Audubon Club and expect to study a book called "Bird Study." We also have studied the story entitled "The Legend of Sleepy Hollow." Thursday afternoon our room went to Alma to the theatre and saw the story in pictures. It was very interesting. Here are some riddles: Why does a man wear a large watch and a woman a small one? How does water get into a water melon? Why is a woman and the sole of a shoe alike? What is the largest word in the dictionary? If any of the cousins guess these riddles please send the answer to the Children's Hour. As my letter is getting long I will close hoping to hear from some of the nieces and nephews, Your Niece, Ferns Irvin, St. Louis, Michigan, Route 4, Box 3.

—I know you will enjoy "Bird Study" and I'll bet you found "The Legion of Sleepy Hollow" very interesting. I know I did. I have never seen the moving picture of it but as you say it is interesting. I will go the first opportunity I have.

Dear Uncle Ned—I have been a silent reader of the Children's Hour for sometime and I thought you would like to hear from another of your nieces. Would you? I will describe myself. I am a girl 12 years old and am in the 6th grade at school. I have brown eyes, dark hair and have freckles. I live on a 98 acre farm. I have 4 brothers and 2 sisters. I have 1 mile and a half to go to school. I think the best department in the Business Farmer is the Farm Home Department and the best department for a man is "Poultry for Profit." Well I will have to close now and leave room for other cousins to write. I would like to get a letter from some of my cousins. I will answer all letters I receive. My birthday is October 18. Have I a twin? I will say good-bye now, Uncle Ned at I cousins.—Thelma Crosby, Edenville, Mich. Box 77. —Glad to hear from you, Thelma. Come again.

Dear Uncle Ned: I have never written to you before, but have read the Children's Hour and enjoy it very much. My father takes the Business Farmer and likes it very much. I am a girl 13 years old, am in the sixth grade at school. I live about one-half mile from school. I live on an 80-acre farm. I have one sister, her name is Mary. She is 22 years old. I also have one brother. His name is Walter and he is 25 years old. We have 2 mules, 1 horse, 4 cows, 2 calves and 65 chickens. For pets I have 2 cats. Their names are Tabby and Tom. My letter is getting a little long so will close with a riddle. Would like to have some of the cousins write to me. Use me well and I am everybody? Scratch my back and I am nobody? Answer: A looking glass. Your niece.—Ernestine Frick, Coleman, Mich., R. 4, Box 46

Dear Uncle Ned:—I noticed in the Children's Hour that you are going to give prizes to the one that found the most interesting article in this issue. I thought mine would be Market Flashes, because the farmers all want to see the price of their crops and see if they are high or low. My Address is—Miss Gladys Hanson, R. F. D. No. 1, LeRoy, Mich

FARM MECHANICS

PROPER SIZE PULLEY

SIMPLE rule given for figuring diameter and speed needed for efficient operation.

The use of the proper-sized pulleys has a lot to do with the efficient operation of belt-driven machinery. How to select the proper sizes is not as difficult as some people think.

In every case one knows, or can find out, two facts about one of the pulleys—its diameter and its speed. One also knows at least one fact about the other pulley—either how fast it should run or how large it actually is.

An example shows how to figure the unknown quantity better than explanation.

Take an engine running at 600 revolutions a minute. The engine pulley is twelve inches in diameter. You desire to run a feed grinder at 900 revolutions a minute. What size pulley should you get? You know the engine pulley's speed is 600 revolutions and its diameter is 12 inches. You know but one thing about the grinder pulley, its speed, which is 900. How can you find the diameter?

Multiply together the two things that you know about one pulley and divide by what you know about the other pulley.

In the above example, 600 multiplied by 12 makes 7,200. Dividing this by 900 gives 8. Therefore, an eight-inch pulley is needed on the feed grinder.

The result will not always come out even, and as pulleys are sold only in certain sizes it is necessary to select the next larger or smaller pulley. When computing the diameter of a driven pulley, select the next size smaller. When computing the diameter of a driver pulley, select the next size larger.—Farm, Stock and Home.

CHANGING TIMES

By JOHN T. BARTLETT

BETTER FARM WANT ADS

I HAVE noticed this: When individual farmers advertise nowadays, their advertising is usually much better than average farm advertising of only a few years back. Take daily and weekly newspaper want ads as an illustration.

The want ads are convenient and efficient business aids, as farmers have realized for years. But there are good ways and poor ways of writing want ads. Only a few years ago, it was a most uncommon thing to find a farm want ad written with real advertising skill. The formula was about like this: Write, "For Sale," and then what you offer, in the briefest possible words. "For Sale—Cow," "For Sale—Alfalfa hay," and similar "want ads" were common.

Contrast these with recent want ads noted by the writer.

A farmer whose want ad on apples informs the reader that he has eight seasonable varieties, at stated prices. Moreover, that "every buyer this week receives a free pumpkin."

A farmer's "cow for sale" want ad which states the breed, age, weight, amount of milk given, when to freshen, and offers to sell on trial.

A farmer's want ad offering setting eggs for sale which informs us this farmer sold 300 settings to "satisfied customers" the year before; that his flock last year earned \$2.50 per head; that 90 per cent fertility is guaranteed.

These are good want ads. They say something which makes the reader, if he is remotely in the market, feel like investigating further. They emphasize that though a want ad seems a little thing, plenty of thought and pains can be put into it, and ample reward obtained. Thus a fruit district selling fruit on the trees to city people, uses several keen want ad selling plans. One orchardist advertises he will call for customers in his flivver, and take them to his farm and at the end of the day, home. Another man features the size of his trees—how easily picked. Still another arranges with a downtown store to exhibit his fruit, and urges readers to view this exhibit—then come out and pick. All these advertisers state price in their want ads—something which always should be done

if the price is reasonable, and conducive to sales.

POULTRY COLOR SCHEMES

ALWAYS, it seems there is opportunity for the individual, adapting methods to his special conditions, to gain desirable results by doing something in a novel, different way. Poultry color schemes observable at Tulare, a Western district—the single large flock, ranging through orchards, showing buff and white, or white, black and brown hens—are an interesting illustration of this. There is a reason for these flocks of these different varieties, and it is intimately associated with profits.

Big poultry flocks usually are of one color. There is a reason—it pays the poultryman best to handle one breed alone. At Tulare a single flock will contain two or three varieties. Buff and white may be Buff Leghorns and White Leghorns. White, black and brown will be White Leghorns, Anconas, and Brown Leghorns.

Tulare adopts the color schemes as part of a plan for increasing the total agricultural production of a single man. One farmer is told about who handles 70 acres of alfalfa, milks four cows, and attends to 1,000 hens. He is able to do this because of labor-saving methods with the poultry. The chickens roam over many acres. Mammoth hoppers, placed here and there, are filled only once in several days. The

chicks are bought of a large hatchery, saving the farmer a great deal of labor.

One year one color will be bought, the next year another color. The early years of a hen's life are the most productive, so Tulare ships hens to market at two years or three years. If at the end of two years, then two colors are kept; if at three years, then three colors. The color identification of age is a big time-saver over the leg-band method—that is why different colors are kept. When the time comes to cull, there is no laborious examination of leg-bands. One glance at the feathers tells.

It is a mistake to believe the period of method origination is past in American agriculture. New ways of doing things are establishing themselves right along, and someone always profits.

HOW SHALL FERTILIZER BE APPLIED FOR POTATOES?

(Continued from Page 4)

ways of applying fertilizer for potatoes. The first of these is by means of a fertilizer attachment on the planter. These attachments have been carefully designed by most of the manufacturers, and are the result of considerable study. Properly adjusted, they mix the fertilizer with the soil so that it does not come into contact with the seed pieces. The fertilizer attachment is generally placed ahead of the seed hopper

in such a manner as to apply the fertilizer before the seed is planted. Generally adjustment can be made to either put the fertilizer below the seed with soil between, or to plant the seed in the fertilizer-mixed soil. The limited experiments that have been conducted on the exact method of placing fertilizer favor distributing it below the seed. The second method of applying fertilizer in the row is by means of a separate fertilizer distributor before the crop is planted. This method seems to be growing in favor, particularly where large quantities of fertilizer are used. A two-row distributor opens the furrows for two rows, applies the fertilizer in about any method desired in the furrow, and mixes the soil and fertilizer together. The rear covers leave a mark to follow in planting. From the standpoint of thorough distribution this method is excellent but it has the disadvantage of involving a separate operation.

There is a common impression that fertilizer in the row causes bunching of the roots. Careful investigations carried on by both the Wisconsin and Michigan Experiment Stations on corn indicate that hill application of fertilizer on corn does not cause the bunching of the roots. While the results of these investigations cannot be applied definitely to potatoes, there is ground to believe that the objection to row fertilization is not so important as it once seemed.

McCormick-Deering Primrose BALL-BEARING Cream Separators



PPRIMROSE Cream Separators have been making a good name for themselves in all the dairying sections of the country. Their good work is usually taken for granted, but if you will turn in wherever you see the sign "Primrose Cream Separator Used on This Farm," and make inquiries, you will find liberal praise for the Primrose. Everywhere is proof of close skimming, long wear, and easy operation. Read this evidence:

Mr. C. W. Coon, Colesburg, Ia., Feb. 26, 1923.
McCormick-Deering Dealer, Colesburg, Ia.

Dear Sir:—You will no doubt be interested in knowing about the Primrose Cream Separator which you sold me 5 years ago and is today giving such splendid satisfaction.

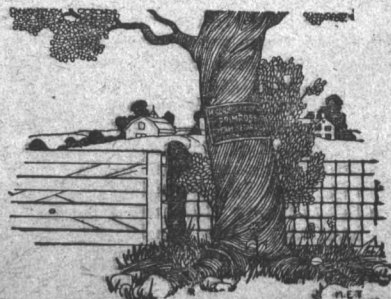
I just returned from the Colesburg creamery and was told that my cream test was the highest in a year's average over the 300 other patrons bringing their cream to this station. The cream test averaged 44% during the year 1922 which is 3% higher than the next highest average test.

At the same time our skimmilk test was less than 1-100 of 1%, so we were sure that the Primrose was getting all the cream.

The repair expense on this Primrose separator has been only \$1.50. Anybody looking for a close-skimming, economical cream separator does well to buy a Primrose—for it's a machine that can't be beat. Yours very truly, [Signed] J. W. Platt & Son.

I At Custer, Michigan recently the dealer held a Primrose Service Day and had a factory expert on hand to give whatever help might be needed. Of 200 Primroses sold locally in the past ten years, only 11 were brought in needing repairs or adjustment. Of this number the biggest repair bill was 89 cents. Such a record speaks for itself.

THAT is the sort of work the Primrose has been doing for farmers. See the note at left also. Now, with ball bearings and other improvements, the McCormick-Deering Primrose Cream Separator is all the more qualified to save cream and money and time for new owners. Made in 5 sizes: hand and power operated. The McCormick-Deering dealer will show you this ball-bearing machine.



INTERNATIONAL HARVESTER COMPANY

606 So. Michigan Ave.

of America
(Incorporated)

Chicago, Ill.

MAY

MAY shall make the world anew;
Golden sun and silver dew,....
Money minted in the sky,
Shall the earth's new garments buy.
May shall make the orchards bloom;
And the blossoms' fine perfume
Shall set all the honey-bees
Murmuring among the trees.
May shall make the buds appear
Like a jewel, crystal clear,
'Mid the leaves upon the limb
Where the robin lifts his hymn.
May shall make the wild flowers tell
Where the shining snowflakes fell;
Just as though each snow-flake's
heart,
By some secret, magic art,
Were transmuted to a flower
In the sunlight and the shower.
Is there such another, pray,
Wonder-making month as May?
—Frank Dempster Sherman.

THE PRISONER AND THE FLOWER

THERE is a beautiful story in French of a prisoner who became attached to a flower. He was put in prison by Napoleon because he was supposed to be an enemy of the government. Walking one day in the yard adjoining his cell, he saw a plant pushing up between the stones. How it came there he could not tell. Perhaps someone carelessly dropped the seed or perhaps it was blown over the wall by the wind. Charney (for that was his name) felt a great interest in the little plant, and spent much time looking at it. He soon saw some buds. He watched them as they grew larger and larger, and longed to see them open. And when the flowers came at last, he was filled with joy. They were beautiful and with a delightful fragrance.

He guarded the plant with great care from all harm, and one day shielded it from a hail-storm by bending over it as long as the storm lasted. It was something more than a pleasure and comfort to him, for it taught him some things that he had never learned before—although he was a very wise man. As he watched the development of the plant—it taught him more than he had ever learned from the wise men of the earth, it taught him that there was a God. He felt that no one but God could make that flower.

The plant proved of great service to him, for the Empress Josephine hearing of his care and love for the solitary little plant in the prison yard, and being a great lover of flowers herself, interested herself in his behalf and persuaded the Emperor to grant him his freedom.

And when Charney left the prison he took the plant with him, for he was loth to part with the little companion of his prison life, that had taught him such lessons of wisdom.

THE GARDEN LETTERS

First Prize

I WANT to tell you something about my plans for this season.

I belong to that class that are renters and it is necessary to move now and then. Most landlords have other things to think of besides setting out shrubbery and building fences to keep out the chickens, and tenants often say, "Well, who knows whether I will be here another year so if the pigs rut up the front yard and the horses and cows eat off the shrubbery and flowers, all well and good."

I like pretty things and do enjoy flowers and it surely doesn't cost a penny to keep the pigs and the cows and horses in the pasture. I want flowers for my tables and I want my children to grow up to enjoy nature and be happy and how else can this be taught better than working with clean surroundings, and flowers.

Now for our campaign. We thoroughly clean the yard. We have so much shade in front that our flowers are in the back part of the yard.

On the east side of the house about two feet from the foundation, we will spade up along the house to put in our dahlias, a few gladiolus and later set in asters. We will also do the same on the west side. On the West side is a porch and we are planting morning glories here.

We build a trellis of several feet to hide the toilet and here plant climbing nasturtiums, then we have beds of zinnias, maragolds, 4 o'clock. We have blossoms till frost, and all hardy enough that the chickens won't bother much after they get a



A Department for the Women

Edited by MRS. ANNIE TAYLOR

MOTHER'S DAY

IN our last issue I mentioned Mother's Day and find it falls on Sunday, May 13th. Let us not forget Mother this year. Maybe she would just love a nice rest day and with a little effort on our part we could give her that happiness that comes with thoughtfulness. I think it is wonderful to have this special Day set aside for her. It sort of checks up on every other day and if we have forgotten, which we should not, we are telling her by our actions how dear Mother is to us. Try and make some special dish or little remembrance that will tell the story of our love for her. Do not forget her if she is not with us any more. A flower or a prayer in remembrance of one we dearly love. It is the custom to wear a white flower for the mothers who have passed on and a colored flower for the living.

Your Friend,
Mrs. Annie Taylor

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

start, until then we cover with brush. We also have a big vegetable garden. We always buy most of the garden seed and a few flower seed, but this year all we will be out is a few nails and a package of climbing nasturtiums.—Mrs. M.

Second Prize

MOST everyone loves to see a beautiful lawn in the summer, and I know of no other place which can show the more beautiful and artistic landscape work than in the country.

The first thing to do is to rake your lawn thoroughly and free it of the small branches and other things which might have blown there during the winter, and if you are a lover of flowers, the following suggestions might add a wonderful appearance to your home.

Make a round flower bed in the middle of the lawn of Canna flowers use as a border, Forget-me-nots, or middle sized stones. For a handsome and showy display they are unrivaled. And if you do not happen to have permanent hedges, for a border around your lawn, buy a small package of Four-o'clocks, they are a handsome plant, grow very rapidly if properly taken care of. At full growth they are about two feet high, covered all summer with hundreds of bright colored, showy, sweet scented flowers.

Or, if you do not care for these, you might buy a small package of Kochra or Summer Cypress known by either name. This annual plant grows rapidly, at full growth two feet high. The leaves, very slender, of light pea green, until fall, and then changing to blood red, either plants are very beautiful for stationary borders.

And for a flower bed in front of the house, I suggest, sweet peas, pansies, a flower of the smaller type, and if you have rose bushes, don't forget to trim them this spring, also the shade trees if any and don't neglect to keep your lawn cut this summer.

The next thing is how we are going to improve our vegetable gardens. Most every farm home should have a small garden near the house separately from the one in the fields. I suggest that you have a border of asters around the garden. This looks very beautiful, especially when there is green onions, lettuce, beets, carrots, etc., vegetables of the smaller type, and don't forget to keep those horrid weeds out of sight. You not only beautify your garden, but also your home, having a vase of asters on your parlor table. At the most, these flower seeds would not cost over fifty or sixty cents, and with a little labor, your home can be wonderfully improved. — Florence Hondorf, R1, East Lansing, Mich.

Third Prize

I WONDER if any of our readers have tried planting Four-o'clock seed to beautify their door-yard? I spaded a strip about 3 feet wide close to the house at the front and along one side and planted the seed as soon as ground was warm, also put a row at the side of the lawn near the drive-way, and stretched a string across until plants were well started this keeps people from driving on front lawn. It does not seem very long until we have a mass of beautiful blossoms which open every day about four o'clock and bloom until about noon the following day. These varicolored flowers will continue to bloom after most others have died, and frost often finds them still giving pleasure to all who love flowers. This seed can be had from any seed firm and costs very little. The plants are hardy and if too thick can be transplanted.—Grace Phare Davidson, R2, Fenton, Mich.

HOW TO MAKE STAIR RUG

I WILL tell how my sister made a good stair carpet that has been in daily use for about thirty years and is not worn out yet.

She cut burlap as wide as she wanted the carpet to be, when it was hemmed on the sides, then with a big hook, pull rags through the meshes. Cut the rags about two inches long and one half inch wide. Pull one end through half its length, then miss two threads of burlap and pull the other end of the rag through so they will be of equal length on the top side. Have the rags not over one half inch apart the closer together they are the better it will wear. Do not trim the top. My sister used sacks that had been covers for sugar sacks. She used hit or miss rags. If one wanted to make it more fancy one could run a white thread along the side about three inches wide the length of the carpet and use one color for that. It takes a lot of rags to make it.—M. S.

THE FARM-WIFE MAKING EXTRA MONEY

THE woman on the farm who feels she can spare the time from her family and household duties has every right to try and increase the family income. There are a great many ways that this can be accomplished.

I have received a great many letters telling about crocheting and tatting. This is a very good way and a pleasant one.

For the women folks that live near a town of any size at all, the raising of chickens and selling the eggs, and making good fresh butter, has always been a safe way to make money. In our town there are quite

a number of women who bring in fresh things from their gardens and sell it to a number of customers that they keep supplied from week to week. Just think of the amount of rhubarb that is starting up right now and when the flower season starts, sell pretty bunches of them. It is surprising how much money can be obtained this way.

I would like very much to receive any letters telling how some of our women folks that live away from the towns can make a few extra dollars. If you have an idea pass it on and help others with the good suggestion. A letter came into my office from Illinois and I thought so fine that I am giving it to you.

Making Money At Home—Velvet and plush hats and Tam O'Shanter for little girls. I usually earn from \$125 to \$150 every fall by making little hats and tams for girls from 1 to 12 years old. I buy remnants of all colors during spring and summer of plush and velvets, fancy trimmings and tassels, by watching for special sales. I live near a city where there are two factories who make uniforms and lodge regalia and can buy small pieces by the pound of velvets and plush and linings. By cutting the Tams in eight section pieces, also so many little hats are made with 6 sections and turn up rim. I also make a square top hat, always using up small pieces. Linings are cut same as outside but of cheaper material in cotton goods. Bands are trimmed with a narrow beaded or fancy braid. A button mold covered with velvet at top and a nice tassel completes the hat or Tam. Red and black, orange and black, gray and blue, purple and gray are nice in two colors, then I also make them in solid colors of red, green, purple, black, blue, gray, etc. I usually cut my own patterns and watch for new ideas. In September and October I go to town or city with a large box usually 20 or more hats in box and stop at any house where I see little girls. I can only go Saturday afternoons when girls are not in school, and usually sell 8 or 10 and more at \$1.00, \$1.25 and \$1.50 each. I live on a farm and am 60 years old, so I think I do fine. My hats and Tams are well made and tasty of good materials. I have made and sold them for 5 years, and can always sell again to same customers, who wait and watch for me. Any woman who is handy and tasty could make them for her own family and friends and thus save many dollars. I make them any spare time I have and by fall I have them all ready. If one lived near town they could go and sell after school. One can buy hat patterns at any pattern counter, or perhaps our Editor would furnish some.—Mrs. M.

—This article on making money at home is a good one and would like very much to thank Mrs. M. and hope more of our readers will pass along their ideas on how to make extra money.

Mothers Problems

PERSISTENCY PAYS

PERSISTENCY pays—in bringing up children as well as in anything else. Many a mother has started her baby out right in life by studying every available authority on baby care and doing nothing for her child which would not come under the head of "scientific care and feeding." She has brought her baby safely through those all important first weeks of his life; she has seen him safely through his first summer, and breathed a sigh of relief when the first set of teeth has been entirely cut. And then—oh, how many times it happens!—she seems to think he has got past the period when care must be taken with him. She grows careless about the food he eats, about the condition of his stomach and bowels, about his hours of sleep and the amount of excitement to which he is "treated." The child now, she thinks, is, in a measure, big enough to take care of himself!

But no child is big enough, either at four or five or six, to take care of himself, and decide what he should eat, when he should go to bed, and how many nights he shall be up late. To have as healthy school-age children as you have fat babies, there is but one rule to follow, and that is, "keep everlastingly at it!" Don't grow lax in the care of the older ones! Train them in right eating habits so that they may not become one of that vast army of undernourished children that fill our public schools! Insist upon the early bedtime hour that nerves may not be shattered by too-little sleep. Throw windows wide at night that lungs may be filled with health-giving, health-keeping oxygen while the children sleep.

Even though your children rank high in physical examinations, even though you know they are exceptionally well, don't relax in your efforts to maintain that fine standard of health. Keep at it, at it, at it! Your duty is not done when you have seen your children safely through babyhood, nor is it done when they are safely launched in childhood. Your goal is, or should be, strong, healthy, vigorous men and women. Persistency alone will fulfill that ambition. Persistency pays!—Margaret Bartlett.

GET YOUR FAVORITE RECIPES AND HOME REMEDIES READY

FOR Mr. Slocum has promised that if I secure enough, home-tested recipes and home remedy prescriptions, The Business Farmer will publish them in book form exclusively for our readers. I cannot tell you all the particulars in this issue, but I do know that we are going to give some recognition to the sender for each recipe published so I want you to get together your very best cooking, baking or canning recipes and your home remedy prescriptions. Just the ones that have been passed along in your family or you have used successfully for years.

I'll tell you more about this plan in the next issue, but do start getting your very best recipes ready for me. Joyfully,

MRS. ANNIE TAYLOR.

The Runner's Bible

Our lives are hid with Christ in God (Col. 3:3). We dwell in the secret place of the Most High (Ps. 91:1). His presence shall go with us (Ex. 33:14). So shall we ward off the fiery darts of evil (Eph. 6:15-18), and need not fear what man can do unto us (Heb. 13:6). We shall be safe and can enjoy peace of mind throughout the day. We shall learn, too, that by thus daily seeking the kingdom of God, not only will things be added unto us (Matt. 6:33), but that understanding will rapidly increase because Truth will be more and more revealed. If we desire the Truth which is the remedy for every inharmonious condition, seek it with love and kindness and do not be afraid to face the bare facts.

Personal Column

Little Girl in Trouble—Your case is truly a sad one and I am afraid you will have to make the best of it by smoothing out the road with your own loving kindness. The law is that you are under age until eighteen and if you went away, your father could bring you back or send you to some school for delinquent girls. The old clothes do not mean much for unhappiness, because we all have sometime or other had a dress made over from an older sister or aunt, so little reader do not feel badly about the made over clothes. You really are young to go to dances and it is alright so long as your father is with you. I would suggest your finding some girls your own age and try associating with them. Invite them to your home. What you need is the help and companionship of some good neighborly woman and I hope you will find her. Write again.

This is a lesson for the parent readers of M. B. F. Don't put too many burdens upon our young folks and cheat them out of their childhood. It is a big problem to know how and when to scold a girl or boy of tender years, especially between the ages of twelve and eighteen. Their minds are developing fast and they need courage and lots of attentions to guide them for their future life. The girl of twelve or fourteen who works too hard at home is spoiling her future life as a mother and wife.

Request—I should like to hear from any reader who likes to piece quilts. I have some nice gingham and percale quilt pieces, more than I shall ever use. I would exchange for anything useful.—Mrs. G. W. Morgan, R. 3, Vicksburg, Mich.

Making Blankets Over—Use your thin outing flannel blankets inside of quilts in place of cotton. If double blankets are used, thin at foot and fold so thin part comes in center.—Mrs. G. W. Morgan, Vicksburg, Mich.

Briar Rose—The poem "Briar Rose" was sent to Mrs. M., and she wants to thank the subscriber who sent it in and hopes to return the favor.

Sleeveless Sweaters—I should like to receive the address of lady who makes sleeveless sweaters.—Mrs. G. M.

Canning Horseradish—I carefully clean a quantity of horseradish roots and grind them very fine with my food chopper. I fill a quart can nearly full and add four level tablespoons of granulated sugar, one teaspoon of salt and fill the can full of good vinegar. This will keep a year if kept in a dark place.—F. A. B.

One Year's Subscription for Mrs. M. E. S.—Mrs. M. E. S. has won a year's subscription on her garden letter and if we can have your full name would be glad to award it to you.

Absent—Why did he leave me, Could I put forth my arm and stay him—I would not for its God's decree, Man must work out his own destiny.

If I could but aid him now, My sorrow would be less, my happiness more, I'll let go. God can have him as before.

Thoughts are mighty, Truth works in Unity, Vibrating through ethereal space, In one grand symphony.

Prophets, Seers, Illuminati, Voiced this long before, Many in body, but One in mind, Present forever more. —Baker.

—This poem was sent in by a reader of M. B. F.

—A letter asking for recipe for canned meats came into our office and the following is from a subscriber. It sounds real good.

CANNED SAUSAGE MEAT

Here is a recipe a subscriber sent in and says it has always proved successful. I have kept sausage canned this way until Fall. Grind and season meat to taste as soon as possible after butchering so that it has no chance to taint. Stuff in links or make little patties not too thick, and just large enough to go into a quart or two quart can. For a small family one quart cans are better as the meat soon taints after it is opened. Fry sausage in frying pans on the top of the stove. The sausage should be fat enough to make half the grease required. If not, melt lard. Watch carefully and turn so that it does not burn. Fry until done and not too brown. It is then ready to put into cans that are ready, of course. Cans should be packed with sausage up to the shoulder. Pour the grease from frying pan into a small granite pan which should be kept hot on the stove. Then rinse the frying pan with boiling water to get the brown liquid. When this boils fill the can half full, then fill remainder of can with hot grease from the little pan and cover sausage with grease as the grease must cover the sausage to keep. If you have plenty of grease, all grease can be used to fill cans. It is then ready to seal.

Heat oven as for baking and cover the bottom of granite baking pans with sausage and roast in oven. Watch carefully so that they do not burn, and take pans out once and turn so that all sides are browned alike. Then put into cans and do the same as above recipe. The meat will have a better flavor by this recipe. It will keep just as well. Have tea kettle filled with boiling water while canning and can all sausage hot. Sliced meat can be canned in the same way.

—I would like very much to secure the names of people who have Buff Cochins, Partridge Cochins and Bantams to sell and their prices for same.—Mrs. Hazen Miller, Route 2, Wheeler, Michigan.

Dear Mrs. Taylor—We have had sickness all winter and are very much in need of clothing. We have two little boys, age 4 years and one

4 months. We are trying to raise our children the best we know how. If any of the readers have any garments that would help, they would be very much appreciated.—Mrs. J. C.

—Any reader that will help Mrs. J. C. can have her address upon request.

Some time ago I noticed a request for a method of removing rust stains. The lady was told to use lemon juice and salt and place in the sun. I have found that it is much easier and quicker to place the spot over the top of a steaming teakettle after dipping in the solution of salt and lemon juice. If very bad it may need a second dip. The spot will disappear in a very few moments. Ink spots may be treated the same way and then washed in the usual way to remove the color in the ink. Or they may be washed first to remove the color, then the yellow spot that is left removed with the salt and lemon.

Will some reader tell me how to mend broken dishes so that they will stay mended even when washed in warm water. I read a way to do it once with alum or ashes or both but lost the article. Also wish to ask if any of the readers have had experience in shipping rabbits or other animals to the food and fur companies in New York City and Kansas City, Mo., who offer to buy all you raise if you buy stock of them.—Mrs. E. W. B.

—Can any reader answer these questions?

The article written by Margaret Bartlett was very interesting to me. Only one thing could have made it more perfect; had the mother explained to the daughter, she was sorry she was even momentarily angry, as the daughter was suffering for a mother's mistake.

I have two daughters woman grown and we are just pals together. There has been no misunderstandings. If a difference of opinion arose, it was easily explained, because of our great love for each other. This is a secret. Love is the connecting link (not disconnecting) every time. Where love is first, there is no discord. One daughter is an artist, the other a valuable cashier for a large firm, and when they return home we trio are arm in arm as heretofore, and often they say to me, Mother, you are as young as we are, thus we have happy times together.

So much happiness is in store for us if we are not oblivious of it.

You mothers that think your heart is breaking, yes and fathers too, go within yourselves and find that glorious calm, that serenity of peace that is ever there, and see only the wonderful beauty in your sons and daughters and rest assured it will come forth and love you. This I know from my own splendid daughters. Love fulfills everything.—L. Baker.

RECIPES

CANNING SMALL FISH

"All fish must be absolutely fresh for canning. Do not attempt to can fish that has been dead more than a few hours, for it deteriorates very quickly.

To prepare fish, scale or skin, remove head, fins and entrails. They will scale more easily if dipped for a moment into boiling water. If they are large, remove back bone. Soak fish in brine made of 2 tablespoons salt to 1 quart water, from quarter of an hour to an hour, according to the thickness of the pieces. This draws out the blood. Drain, out into lengths or pieces desirable for packing and serving. Pack into jars, add hot brine made of 1½ tablespoons of salt to 1 quart of water. Partially seal, process pint jars 60 to 90 minutes of 15 lbs. steam pressure, seal. Canned fish may be served boiled, with sauce, rolled in meal or crumbs and fried, baked and basted with butter, deviled, scalloped, croquettes, fish cakes, salads and in many other ways. The above directions may be used for all varieties of fish.—Mich. Agri. College.

RHUBARB CONSERVE

Many people have more rhubarb in their patch than they can use up in sauce for immediate consumption. Why not convert this into conserves? The following recipes are good:

Rhubarb and Prune Conserve

One quart rhubarb cut in small pieces.
One cup prune pulp.
Three cups sugar.
One lemon, juice and grated rind.
One-half cup English walnuts, chopped. Cook the rhubarb, the prune pulp and the sugar until the mixture is thick. Add the lemon juice and rind and the nuts. Cook slowly until the conserve has a rich, red color.

Note—One cup chopped raisins may be added.

Rhubarb and Pineapple Marmalade

Three pounds red rhubarb.
Two pounds sugar.
Two lemons, juice and rind grated.
One cup grated pineapple.
Cook the mixture slowly until it is thick and clear. Turn into glasses and seal.—Home Economics, Colorado Agricultural College.

RHUBARB SHORTCAKE

Mix and sift together two cups of flour, four teaspoons of baking powder, one-half teaspoon of salt and two-tablespoons of sugar. Rub in one-third cup of shortening and add one egg and enough milk to make a very soft dough. Spread the dough evenly in two small greased layer cake pans and bake in a hot oven—400 degrees—for ten minutes. Remove from pans, cool slightly. Spread stewed rhubarb very thick between and on top of the layers and serve with hard sauce, custard sauce or whipped cream.

RHUBARB JELLY

Wash rhubarb and cut into small pieces. Mix with just enough water to keep the rhubarb from burning. To each pound of rhubarb add juice of one orange and one lemon and the finely-chopped rind and inside white peel. Cook slowly until tender and pour into a jelly bag to drip. When all the juice has dripped through, measure and allow one pound of sugar to each pint of juice. Heat to boiling point and boil five minutes. Add sugar and boil until the mixture jellies from the spoon. Pour into sterilized jars and seal with paraffine.

—if you are well bred!

In public—only in crossing the street the boy takes a girl's arm.

The man always walks on the outside, even walking with two girls or more girls. Always acknowledge acquaintanceship with bow or slight smile.

When in town do not walk more than three abreast on the sidewalk.

Patterns will be found on page 18.



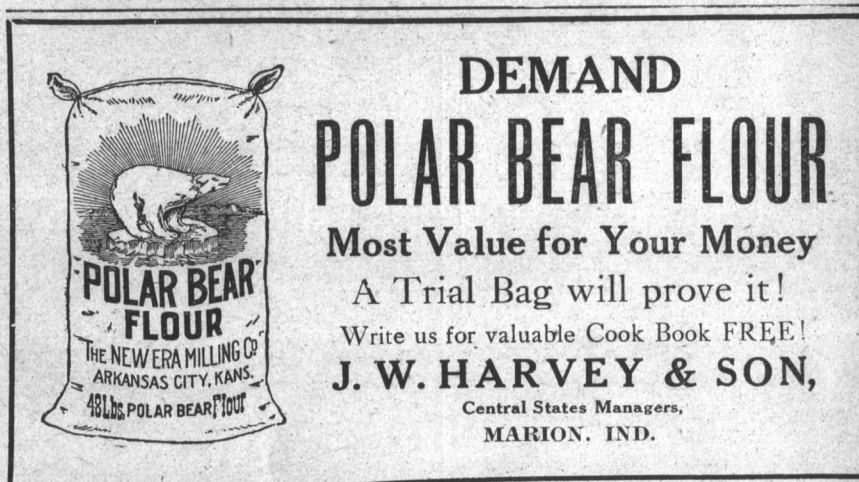
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DAIRY and LIVESTOCK

SPRINGTIME IS PIGTIME

SPRINGTIME is pigtime on most farms. It is the season when more can be done than at any other time of the year to make pork production profitable, for a pig well started may be said to be well on the way to market. After he is a few weeks old and has successfully passed the weaning period he is pretty well able to take care of himself if he is given access to plenty of the right kinds of feed. Therefore, says the United States Department of Agriculture, we should take particular care at this time in order to make the job easier later in the season and the profits greater. A pig that grows well from start to finish is always the desirable and most profitable one no matter whether the price of hogs is high or low.

It should go without saying, although, unfortunately, it still needs repetition, that first of all the pig in order to be profitable must be well bred and of good type. He must have in his veins the blood of animals that have had the capacity to turn a minimum quantity of feed into a maximum quantity of meat. But even a pig starting with these advantages may be a poor piece of property if he is badly handled or if fed improperly. He may get a bad start in competition with his litter mates; he may be stunted at weaning time; worms may sap his vitality; the pasture provided may be insufficient for his needs; or, if precautions have not been taken, cholera may whisk him to an untimely and unprofitable end. But among these possibilities there is none that can not be guarded against.

The opinions of hog raisers vary widely as to the age at which pigs should be weaned. Some of them take the youngsters away from their mothers at 5 weeks, others at 12 weeks, while still others may make them shift for themselves at any age between these extremes. In exceptional cases breeders will leave pigs with the sows even when they are more than 3 months old. Unless there is some special reason for so doing, says the department, pigs should not be weaned until they are at least 10 weeks old, and a sow that will not suckle her litter for this period is undesirable as a mother and should be discarded from the herd.

Some farmers and breeders wean the pigs at an earlier age in order to get two litters a year. The department considers it better practice to give the pigs a stronger start and raise only 3 litters in 2 years. It is better to raise fewer pigs and have them well grown than to raise a larger number and have many of them stunted.

When a litter is to be weaned attention must be given to the sow's condition as well as to the pigs. To bring about a favorable condition for weaning, the quality and quantity of her feed should be reduced for 4 or 5 days before the pigs are to be taken away. This will result in a reduced flow of milk and tend to prevent udder troubles. The sow should be removed from the pigs rather than the pigs from the sow; the youngsters being left in the quarters to which they are accustomed and having access to a self feeder which they should have learned to use several weeks earlier. In case a sow's udder after she has been taken away becomes so distended with milk that it is painful she may be returned to her family for a short time for relief. It will seldom be necessary to return her more than once.

When the pigs are weaned do not change the ration. Leave them on good pasture, with access to the self feeder containing corn and shorts or middlings. If during the suckling period or after skim milk or butter milk is added to the ration, commence feeding it in small quantities, gradually increasing it from day to day. Sudden changes are always to be avoided.

Something may as well be said here concerning the question of raising 2 litters a year, since it is closely related to weaning. Just what a hog grower's practice should be depends upon his geographical location, his equipment for handling pigs during winter, and the kind of farming he is doing. Fall pigs require a great deal of attention and most farmers are not prepared to care for

as many at this time as in the spring. In the northern half of this country pigs should not be farrowed after October 15 as they must have a good start before severe weather sets in. A large percentage of spring pigs are farrowed in March and April and most of the fall pigs come in September and October.

If a sow farrows March 15 and the pigs suckle 10 weeks they will be weaned May 24. If the sow is in good condition she may be immediately rebred, that is within 3 or 4 days after the pigs are weaned. If she were rebred on May 28 she would farrow again about September 16, and the pigs would be weaned November 25, making possible re-breeding for March 20 farrow. It is not always possible, however, to keep to such a schedule, and the raising of 2 litters a year and having them all come at the proper time is impossible. If, however, the pigs are allowed to suckle 10 weeks it should be easily possible for a sow to raise 3 litters in 2 years, and it is probable that more profit would be made this way than by crowding the sows too hard.

TWO NEW CHAMPIONS IN MICHIGAN

TWO Michigan Holsteins have out-classed former records of production for their age and length of test making them new state champions, one of them taking first place in two divisions.

Canary Maid Prometheus Champion is declared highest producer in Michigan as a senior three-year-old in both the seven day and thirty day division.

She is owned by the State Hospital at Newberry. In seven days she produced 674.5 pounds of fat or 34.87 pounds of butter. Her thirty day record is 2639.1 pounds of milk and 106.796 pounds of fat or 133.495 pounds of butter.

Segis Cornucopia Pauline, owned by W. C. Cornwell, Saginaw, Michigan, is a third new state champion. At full age in the ten months division she produced 22832.8 pounds of milk and 766.71 pounds of fat equal to 958.38 pounds of butter.

PRIZE COW AT M. A. C. SETS NEW MILK RECORD

PAULINE Jane Pontiac, a pure bred Holstein-Friesian cow owned by M. A. C., has set a new high mark for seven-day milk and butter fat production among all the state agricultural college herds in the United States.

She produced 731.1 pounds of milk, containing 36.58 pounds of 80 percent butter in the seven days of her official test.

That Pauline's performance is merely the result of careful breeding is pointed out by J. E. Burnett of the M. A. C. dairy department, who supervised the testing. Pauline was sired by Pauline Sir Pontiac, one of the best of the M. A. C. herd.

Another of his daughters, Pauline Segis Fayne, produced more than 21,000 pounds of milk as a junior two-year-old and still another, Pauline Colantha Fayne, produced 19,800 pounds of milk at the same age.

VETERINARY DEPARTMENT

HORSE HAS POLL EVIL

I have a horse four years old with a sore about as big around as a small lead pencil located in the edge of his ear. It runs probably two table-spoons of thick yellow pus in twenty-four hours. Has been like that for sometime. Am of the opinion that there is a pipe in there. It isn't sore in the least around it and the horse acts all right and is doing well. What would you advise me to do for it?—H. B. H., Brant, Mich.

In all probability this horse is suffering from poll evil, a disease which causes necrosis of the anterior part of the ligament that passes along the top of the spine of the cervical vertebrae. Two methods of treatment are commonly used by veterinarians for this disease. The one is to enlarge the opening and pack it with a fistula paste which is left in position for about a week or until the pipe or fistulas canal sloughs out. The

BREEDERS DIRECTORY

Advertisements inserted under this heading for reputable breeders of Live Stock at special rates to encourage the growing of pure-breds on the farms of our readers. Our advertising rate is Thirty Cents (30c) per square line, per insertion. Fourteen square lines to the column inch or \$4.20 per inch, less 2% for cash if sent with order or paid on or before the 10th of month following date of insertion. SEND IN YOUR AD AND WE WILL PUT IT IN TYPE FREE, so you can see how many lines it will fill. Address all letters, BREEDERS DIRECTORY, MICHIGAN BUSINESS FARMER, MT. CLEMENS, MICH.

CLAIM YOUR SALE DATE

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

May 15—Holsteins, C. E. Bone, Walled Lake, Michigan.
May 16—Holsteins, E. W. McNitt, Howard City, Michigan.
May 31—Shorthorns and Berkshires—Simon G. Maiche, Middleville, Michigan.
June 14—Holsteins, Wm. F. Sheehan, Howell, Michigan.
Oct. 18—Holsteins, Howell Sales Company of Livingston County Wm. Griffin, Sec'y, Howell, Mich.

HOLSTEINS

32 LB. SIRE—25 LB. DAM. HAVE A 15 mos. old Pontiac Korndyke, King Segis bull. Sired by a 32 lb. grandson of a 35 lb. Michigan Champion. Dam, a 25 lb. 4 yr. old, King Segis breeding. Calf well grown, straight, nicely marked. Herd federally tested—clean. Price, \$100, delivered anywhere in lower peninsula. R. JONES White Pigeon, Michigan.

REG. HOLSTEIN BULL CALF. HIS SIRE Dam has a record of 124 pounds per day milk, and 34 pounds butter per week. A state record. Thired to sell. GEORGE O. MERRITT, Carson City, Michigan.

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FASCINATION FARM, VASSAR, MICHIGAN. Holsteins, registered fully accredited 32 1/2 lb. sire. Write your want.

GUERNSEYS

FOR SALE—REGISTERED GUERNSEY HEIFERS at reasonable prices, also choice bull calves of May Rose breeding. H. W. WIGMAN, Lansing, Mich., Box 52.

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

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

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Young Cows with calves by side consisting of blood from America's foremost herds at prices that enable them under Earle-ripe Hereford Beef Plan to pay for themselves within a year to 18 mos. Bulls including prize winners at the larger shows at practical prices. Herds headed by Straight Edge 1169788, one of two sons of famous Disturber.

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

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

ANGUS

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

SHORTHORNS

Richland Shorthorns

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

C. H. Prescott & Sons.

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

SHORTHORNS

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

Write Central Michigan Shorthorn Breeders Ass'n, Greenville, Michigan for list of Milking Shorthorns, all ages, priced to sell.

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

JERSEYS

FINANCIAL KING BULLS OF SERVICEABLE AGE

Buy a Financial King Jersey bull from register of merit cows. Why not own a real bull that is sure to breed wonderful sons and daughters. Terms to responsible parties. Prices reasonable. Write to Emil Anderson, Coldwater Jersey Farm, Coldwater Mich. Mich. home of Financial Kings.

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

BROWN SWISS

FOR SALE—VEL VERDE BROWN SWISS Cattle, registered. Bull, cows and calves. Write ED. GRISWOLD, R. 1, Bellaire, Michigan.

RED POLLED

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

First Pure Bred Auction Sale, Thursday May 24

Rain or Shine—Sale begins 9:30. Andy Adams, Auctioneer

Registered Holstein Cattle—15 bulls with 7 and 365 day record backing. Five of the bulls are sired by Sir Pietertje Armsby Mercedes 40th and six by Charlevioz Marbury.

19 Females—15 of them bred to the best Holstein bulls in the state. Four open.

20 Registered Duroc-Jersey Hogs—17 bred sows—6 bred to TOPMAST SENSATION—3 young serviceable boars.

Belgian Horses—1 pure-bred stud, 2 grade geldings and 2 grade mares.

LOEB FARMS, Charlevoix, Mich.

wounds is then allowed to heal by second intention.

The other method of treatment and the one that proves most successful in the majority of cases is a surgical operation which consists in removing the diseased portion of the ligament. I would advise you to put your horse under the care of a competent veterinarian for treatment.—John P. Hutton, Assoc. Prof. of Surg. and Med., M. A. C.

SHEEP HAVE ACUTE INDIGESTION

I am writing to you in regards to my sheep and hope you will please inform me what to do. The sheep refuse to eat, stand around and stretch their front legs out forward and the hind legs backward, and the back seems to cave in. Some live a week and some longer. Urine alright but no bowel passage. None have lambed but are with lamb. Thought at first that was the trouble but the bucks are the same as the ewes. I am feeding fine timothy hay and alsike clover mixed. I have fed bean fodder. They have plenty of salt and I am feeding bran and linseed meal.—A. P., Gladwin, Mich.

From the symptoms which you describe, I believe that your sheep are suffering from some form of acute indigestion. This may be due to some spoiled or mouldy feed, or it may be due to timothy stalks irritating the bowels, or even penetrating them, as they sometimes do.

I would advise that you give each one of these sheep about one-half pound of epsom salts as soon as the trouble is discovered, remove the timothy hay from the ration, and feed only clover hay and bean fodder as roughage.—Geo. A. Brown, Prof. of Animal Husbandry, M. A. C.

COW SUFFERING FROM CHRONIC MASTITIS

I have a cow, 3rd generation from purebred bull. She gave a good lot of milk twice a day. Unusual for this county. Toward end of her milk season her milk got a little stringy in right hind quarter. I milked her out good for sometime, after about 8 weeks dry she calfed. Always was an easy milker, now that same quarter gives a small stream of milk, milks very hard and seems to be sore and tender. Can you advise me?—C. M., Roscommon, Mich.

The cow is suffering from chronic mastitis, a chronic inflammation of the gland of that quarter. The treatment of cases like this is often very unsatisfactory. Milk out the affected quarter every two hours, massage well with a mixture of sweet oil, one ounce; turpentine, one dram; and fluid extract of phytolacca, one dram three times daily. Give internally one ounce of artificial carlsbad salts night and morning for two weeks. If you have a good veterinarian in your locality I would suggest that you put the case in his hands and let him treat it as he will be able to treat the case much more satisfactorily than can be done by mail.

—John P. Hutton, Asso. Prof. of Surgery and Medicine, M. A. C.

SYMPTOMS OF PIN WORMS AND BOTS

I would be pleased to know what are the symptoms of worms in horses, both pin worms and bots, also what is best to rid them of same.—C. M. R., Elkton, Mich.

Pin worms (Oxuris curvula) are parasites that live in the large intestine of the horses. Frequently they are found in the rectum where they sometimes produce irritation and cause the patient to rub the root of the tail and buttocks. Sometimes as a result of catarrhal inflammation of the rectum a layer of white or yellowish dried exudate is found about the anus.

Bots affect principally colts and young horses which have been running on pasture during the summer. During the winter when the animals are stabled and on dry feed they become unthrifty and show poor appetite, sometimes intermittent attacks of colic. Edematous swelling commonly appears between the jaws. Where the invasion has been very great the patient eventually becomes very much emaciated.

When the parasite (Gastrophilus hemorrhoidalis) is present in the rectum it may cause the patient to become restless and rub its tail frequently. Whitish dried crusts sometimes appear about the anus.—John

P. Hutton, Associate Prof. of Surg. & Med., M. A. C.

COW GIVES THICK AND STRINGY MILK

Would like to know what to do for my cow. Her milk is thick and stringy from one quarter of her udder. She has been fresh about two months. She gets three quarts of ground oats twice daily and mixed clover and timothy hay. She is in fairly good condition.—G. M. P., Mackinaw City, Michigan.

This cow is suffering from mastitis the treatment of which is very often unsatisfactory. I would suggest that if possible you put the case in the hands of a good veterinarian if there is one in your locality and let him treat it. It is usually very unsatisfactory to try to treat a case of this kind by mail. If you, however, do not have a veterinarian in your community and will write and give me the particulars about the case I will be very glad to help you in any way that I can.—John P. Hutton, Assoc. Prof. of Surg. and Med., M. A. C.

NEW MICHIGAN HOLSTEIN CHAMPION

TRAVERSE Echo Sylvia Walker, a Holstein cow owned by the State Hospital at Traverse City, is declared new state champion producer in the junior two year class for production of butterfat in thirty days. This cow produced 2300.0 pounds of milk and 80.453 pounds of butterfat according to official announcement from the Advanced Registry office. This butterfat production equals 100.56 pounds of butter.

The new champion takes the place of Eden Hope, owned by G. W. Ridgeman at Vassar.

LIKE AMERICAN BUTTER BETTER

OVER fifty percent of the butter now imported into the Dominican Republic comes from the United States, while until three years ago 90 percent of the butter importations into that country were of European origin, a report from Mr. Francisco Fiol of the American Consulate at Santo Domingo informs the Department of Commerce. It is believed that American dairy and nut butters will have an increasing market in the Dominican Republic provided that they are given due publicity in papers pamphlets, calendars, etc.

THE EXPERIENCE POOL

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

CAN YOU SUPPLY THIS INFORMATION

Has any reader ever used the well boring outfit put out by the Speciale Device Co., Cincinnati, Ohio? Did it give satisfaction? Did it do all they claim it will do? I will thank anyone for any information concerning this outfit.—J. W., Mich.

WART REMOVER

I would like to suggest a remedy for warts in the case of Mr. F. H. B., Cheboygan. If he will saturate the warts thoroughly with Castor oil every two days for a couple of weeks I think they will disappear. It might not be necessary to continue the treatment that long. I have taken them from cows teats with two applications. A neighbor told me of this 15 years ago. I have used it several times and it has never failed me yet. This will not make sores where the warts were.—Sanford McElhenie, Fremont, Ind.

BEST OF ALL HE READS

I was glad to renew my subscription for 2 years for I read several papers and believe yours to be the best of them all.—Broul H. Roberts, Chicago, Ill.

Wife—"How many fish did you catch last Saturday, George?" Husband—"Six, darling—all beauties." Wife—"I thought so. That fish dealer has made a mistake again. He charged us for eight."

Like—"Swim out here, fadder I'm sinking." Also—"I can't swim. Throw papa your watch and I will pray for you."—Brown Jug.



~Cow Testers Know that DeLaval Separators Skim the Cleanest

Statements from over half the cow testers employed by cow testing associations throughout the United States, reaching over 6000 farms, give additional proof of the superior skimming efficiency of De Laval Separators.

Cow testers know best of all what cream separators are used most, which skim cleanest and last longest, because they regularly test the skim-milk from the separators owned by their members. They say:

- "I find on an average De Laval Separators skim cleaner—from a trace to .04 of one per cent. Thirteen out of nineteen separators here are De Laval." (.01 of one per cent equals one lb. out of every 10,000.)
- "Out of 48 separator users 29 use De Laval. I've found them the best skimmers for the longest time."
- "28 members have separators, and 22 are De Laval. They give the best satisfaction after considering all points."
- "De Laval Separators have no equal for quality and efficiency. 15 out of 20 are De Laval."
- "90% of the separators used by my members are De Laval. The majority skim closer than .02 of one per cent."
- "The De Laval is a very close skimmer under any and all conditions. 95% of the separators here are De Laval."
- "I have 25 members and 18 use De Laval. I have not had one test below .05 of one per cent."

*Authorities for these statements from cow testers, together with many others equally good, are contained in a booklet entitled "Cow Testers—What They Do and What They Say About De Laval Cream Separators and Milkers." Send for it—contains information about the value of cow testing associations.

The De Laval Separator Co.
NEW YORK CHICAGO SAN FRANCISCO
165 Broadway 29 E. Madison St. 61 Beale St.


You Get More, Richer and Smoother Cream from a De Laval

Sold on easy terms

Over 2,500,000 in use

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

Better than Whitewash



CARBOLA


The Disinfecting White Paint

It takes less than five minutes to mix the Carbola powder with water and have it ready to use as a white paint and powerful disinfectant. No waiting or straining; no clogging of sprayer. Does not spoil. Does not peel or flake. Disinfectant is right in the paint powder—one operation instead of two. Gives better results, costs less. Used for years by leading farms.

Your hardware, paint, seed or drug dealer has Carbola, or can get it. If not, order direct. Satisfaction, or money back. 10 lbs. (10 gals.) \$1.25 and postage; 20 lbs. (20 gals.) \$2.50 delivered; 50 lbs. (50 gals.) \$6.00 delivered; 200 lbs. (200 gals.) \$18.00 delivered; trial package and booklet 30c.

Add 25¢ for Texas and Rocky Mt. States

CARBOLA CHEMICAL CO., Inc.
810 Ely Ave., Long Island City, N. Y.



AYRSHIRES

FOR SALE—REGISTERED AYRSHIRE bulls and bull-calves, heifers and heifer-calves. Also some choice cows.

FINDLAY BROS., R. 5, Vassar, Mich.

HAMPSHIRE

HAMPSHIRE—SPRING BOARS AND BRED gilts from 25 sows to select from. Place your order now or you may be late. 10th year.


JOHN W. SNYDER, R. 4, St. Johns, Mich.

FOR SALE: YEARLING HAMPSHIRE BOAR, Spring pigs. Look out breeding.

G. W. PADBURY, Borden, Michigan.

113 Ton Silos filled in day's run


with Dick's Blizzard. "We use Dick's Blizzard on our ranch," writes Mr. Morgan. "Just keep it supplied and the cutter does the rest."



Dick's Blizzards save most labor. All 1923 models are self-feeding. Feed Roll Models have New Paddle Roll Self Feed; improved feed table, larger throat capacity, additional strength. Some models have automatic feed regulation. Blizzards are simple, safe, long lasting and economical of repair expense. Parts of wear all replaceable. Deliver most work per H. P. Unlimited elevating ability.

Write for Big New Circular
Describes all 1923 models with their wonderful new features. Also the Dick's "Famous" Feed Cutter for hand or power cutting. Standard for forty-nine years.

THE JOS. DICK MFG. CO.
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Canton, O.



Blizzard

Ensilage Cutter

DUROCS

HILL CREST DUROCS, PERRINTON, MICH. We are breeding twenty sows and eighteen gilts to a son of GREAT ORION SENSATION Yearling, spring and fall boars. **NEWTON & BLANK,** Farm 4 miles straight south of Middleton, Gratiot Co., Mich.

DUROC JERSEYS

Fall boars and gilts of quality, prices very low. Am booking orders for March pigs to ship in May. \$10, reg., short time. Satisfaction or money back. **B. E. KIES, Hillsdale, Mich.**

PEACH HILL FARM

offers choice weanling Duroc pigs, either sex. Priced very reasonable. Write us.

INWOOD BROS., Romeo, Mich.

O. I. C.

O. I. C.'S

Two outstanding wavy haired fall gilts weighing 175 lbs. Open \$25, Bred \$35 Shipped on approval. Also spring pigs. No better type and breeding. **CLARE V. DORMAN, Grover, Mich.**

MR. FARMER!

Mr. Dealer

Mr. Jobber

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Is
THE
BESTTHE
PRICE
IS
RIGHT

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

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

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

Michigan State Prison

HARRY L. HULBERT, Warden
JACKSON, MICH.

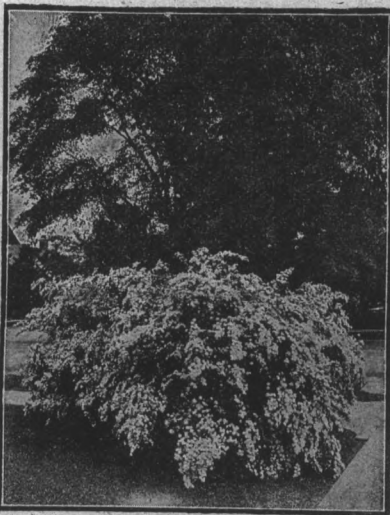
THIS BEAUTIFUL BRIDAL WREATH AND 4 OTHER HARDY ORNAMENTAL SHRUBS

Planting a few shrubs this season will soon make your home a beauty spot and a greater joy to live in. Also, if you should later decide to sell it, you will find it more salable and worth a few hundred dollars more. Our collection consists of the following five most desirable varieties. They are not little, greenhouse-rooted cuttings, such as are often given in offers of this kind. These shrubs are all field grown, healthy and thrifty, and are sure to give satisfaction. We would recommend that you accept our special offer without delay, as this offer may be withdrawn at any time.

Beautify Your Home at Our Expense

SPIREA VAN HOUTTEI (Bridal Wreath)—A leader among shrubs, and a beautiful ornament at all seasons. A round and graceful bush with arching branches, covered with white flowers in early summer. No doubt the most useful of all shrubs.

ALTHEA (Rose of Sharon)—A beautiful shrub that nearly everyone is familiar with. Flowers profusely in late summer and early fall, when few other shrubs are in bloom.



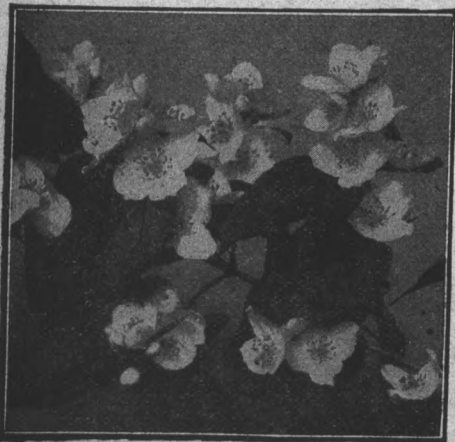
Spirea Van Houttei (Bridal Wreath)

BUSH HONEYSUCKLE—Handsome bush with pink and white flowers in the early spring, followed by beautiful and showy red berries during summer and fall.

FORSYTHIA (Golden Bell)—The first shrub to bloom in the spring, the golden-yellow flowers appearing before the leaves; frequently while the ground is still covered with snow. Branches cut off in winter and put in a vase of water will bloom in the house.

SYRINGA (Mock Orange)—One of the finest of the tall shrubs. Valuable for backgrounds, screens, grouping and specimens. Flowers white and very fragrant. Beautiful for cutting.

These are the five grandest shrubs for all climates, and will be delivered to you, by parcel post, postpaid, as per our special offer below.



Syringa (Mock Orange)

OUR SPECIAL OFFER

ALL FIVE SHRUBS, above described, shipped from our Michigan nursery, direct to your mail box, postage paid and safe arrival guaranteed, for **ONE DOLLAR**, which includes a One Year New or Renewal subscription to The Michigan Business Farmer. This may apply on your own renewal or add any new name **ONE FULL YEAR**.

Order of THE BUSINESS FARMER, Mt. Clemens, Mich.

MICHIGAN CROPS

BOOSTING THE FALL WHEAT

ROLLING the fall wheat in the spring, after the ground has become sufficiently dry, has boosted many an unfavorable field of wheat. Packers, that are now a part of the equipment on many farms, are splendid for this work. They pulverize the soil to a finer degree than an ordinary roller, and leave the top of the ground in a condition that is less subject to a crust. They break the crust that is usually forming, fill the cracks, and press the freshly pulverized earth firmly against the roots of the plants. This not only gives the wheat a start but aids in preserving moisture that is often needed later on.

Last year the writer had an opportunity to witness the benefit that resulted from harrowing a field of fall wheat. The wheat had been sowed late in the fall, with very little growing weather following. In the spring it did not appear to be worth leaving; but when a little crust began to form on the top of the ground, and before it became hard, the owner ran over the field with the spike tooth harrows. The impression the harrows made upon the ground did not appear to be sufficient to merit the time spent, the wheat soon began to show improvement, and by harvest time had attained a normal height. This field of wheat, that at one time appeared to be a failure, returned a fair yield; and it paid the owner well for the little time spent in harrowing it.

The reason that rolling or harrowing the fall wheat is not practiced on more farms is because it needs to be done at that time of the year when work is usually crowding the farmer. But, when one can increase the yield of the wheat crop from one to three bushels per acre with so little effort it would be profitable to neglect less important work in order to give the fall wheat a boost.

Running over the fall wheat with the packer or spike-tooth harrows this spring may be the making of the crop.—L. W. Silverthorn.

OAT SMUT IS PREVENTABLE

Would like to get some information regarding treatment of oats and barley smut. Has the State Department of Agriculture a formula for the treatment of oats and barley smut? If they have a formula, will they furnish the anti-smut cure? What would be the cost?—J. A. B., Tawas City, Michigan.

—This disease is caused by a parasitic fungus—a small plant which makes no food for itself but steals its living from the oat. The body of the smut fungus is made up of threads, microscopic in size, which live inside the oat plant, growing up with it, and finally producing its own kind of fruit where the oat kernel should be produced. This fruiting mass of the oat fungus is the brown "smutty" powder. It is made up of the countless thousands of exceedingly minute balls. These balls are the "seed" of the smut fungus. They are called spores.

These seed-like bodies, the spores, are mature at threshing time. They get into the crevices of the grain and adhere to the surfaces. When the grain sprouts, the smut fungus sprouts too, and bores into the young seedling. This is the only period when smut can infect the oats. Once inside, the smut grows as the oat plant grows, keeping pace with its progress. When the oat matures, the smut matures also and completely replaces the normal grain with the "smutty" powder. The seed for next year's crop becomes heavily dusted with its powder dur-

ing threshing. It is not too much to say that, year in and year out, smut destroys 8 to 10 per cent of the untreated Michigan oat crop—approximately one acre out of every ten planted. This amounts to nearly four million dollars annually.

Prevention of oat smut is possible by taking advantage of the fact that the smut can only enter the grain at sprouting time, the seed grain itself being the source of infection.

Seed treatments kill the spores on the outside of the grain, without injuring the grain itself.

Smut is now so common everywhere that untreated grain gives a heavily smutted crop; treated oats give clean, healthy plants.

Clean the oats of all weeds, chaff, and light grains by means of a fanning mill.

Treat seed oats for smut either by the well known sprinkling method or by the new concentrated formaldehyde treatment.

Mix one pint fresh formaldehyde with 40 gallons of water. Clean a place on the barn floor and sprinkle with this solution. Spread the oats in a thin layer (four inches) and sprinkle with the dilute solution of the formaldehyde. Shovel over and over until every kernel is moist. Add layer after layer, sprinkling as before. Two quarts of solution is enough to allow to a bushel. When all the grain is moistened, shovel into a compact heap, cover two hours with a blanket or canvas, then spread out to dry and air. Do not let the wet grain freeze, mould or sprout.

The grain may be planted as soon as it is dry enough to run through the drill. Make allowance for the slightly swollen condition when planting. One pint of formaldehyde will treat from 50 to 60 bushels.

The treatment may be modified by dipping the grain, one-half to one bushel at a time, in a barrel or tub of the dilute solution. Drain, cover for two hours, dry and the oats are ready for planting.

Formaldehyde Treatment

Use formaldehyde at the rate of one pint to 50 bushels of grain. For smaller amounts of grain correspondingly smaller amounts of formaldehyde. It is unnecessary and unsafe to use more formaldehyde than the amount recommended. Put the right amount of fresh formaldehyde just as it comes from the druggist, into a pint or quart hand spray or atomizer and spray the grain as it is shoveled over and over. If the sprayer is kept close to the grain and if the treatment is given in a room where there is a good draft, the penetrating odor of the formaldehyde will give no discomfort.

When the right amount of formaldehyde has been applied, shovel the oats into a heap and cover for exactly four hours with a canvas or blanket.

The grain should then be spread out thinly for a thorough airing in a warm place. Rake the grain over during this airing, then plant at once.

Wheat, barley and rye may be treated in the same way as for oats.

Injury to the wheat will result if directions are not followed, or if the grain is allowed to stand after treating. Plant the same day.

With either treatment avoid contaminating the grain with dust from old sacks or from the drill. To disinfect the sacks, soak in formaldehyde, two tablespoonfuls to a pail of water. To disinfect the drill, pour this solution through it.

Ask any druggist for fresh formaldehyde.—G. H. Coons, Botany Department, M. A. C.



White Diarrhea

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

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

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

Cause of White Diarrhea

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

Never Lost a Single Chick

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

Never Lost One After First Dose

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

You Run No Risk

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

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

Send me the () 50c regular size for () \$1 economical large size package of Walko White Diarrhea Remedy to try at your risk. Send it on your positive guarantee to instantly refund my money if not satisfactory in every way. I am enclosing 50c (or \$1.00). (P. O. money order, check or currency acceptable.)

Name _____

Town _____

State _____ R. F. D. _____

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.



POULTRY

VERY SUCCESSFUL INCUBATION

Can you give me complete directions on how to hatch chicks from incubator without losing so many large full grown chicks which die in shell? I have trouble every time. I lose about 40 out of 100 chicks or I will say I sat 135 eggs and will test out about 24 and at the end of hatch I usually get about 75 to 80, the rest die. I run a hot water heating system and also one hot air system. How many geese can you breed with one gander? Does it make difference in fertility of eggs if you use your own gander from same flock? Can you incubate turkey and geese eggs?—Mrs. C. A. S., Onaway, Mich.

—Statistics gathered from every part of the state this season indicate that the average hatch has been about fifty per cent. I note you received from 75 to 80 chicks from 135 eggs set and would consider this very successful incubation especially during the months of March and early April. Later in the season when the birds are permitted free range a few dead chicks will be found in the shell and the mortality during the incubation period will be greatly lessened.

Low hatchability of the egg involves many factors. The breeding stock should of course be in the best physical condition. Artificial illumination, heavy protein feeding, and over crowding in damp and poorly ventilated buildings all have a tendency to decrease both fertility and hatchability. Immature breeding stock frequently produces a high percentage of weak germs. The fate of the chick is more easily determined before it is produced and therefore the incubator should not be too severely criticized for the resultant low hatches early in the season. Hot water machines are usually the most satisfactory during the early months because the air at that time is relatively dry and the moisture machines, on an average, will produce more successful hatches. Later in the season, however, when the humidity of the air increases the hot air machines may excel the hot water type.

It is inadvisable to inbreed with either turkey or geese as the infertility usually runs much higher and the offspring is often lacking in constitutional vigor. It is not ordinarily advisable to use over three geese with one gander. Both turkey and geese eggs have been successfully incubated by artificial means although it is generally advisable to set the domestic hen early in the season thereby inducing the goose and turkey hen to produce as many eggs as possible. The latter can be used for incubation work later in the season.—E. C. Foreman, Associate Professor of Poultry Husbandry, M. A. C.

REQUIREMENTS OF WHITE WYANDOTTE

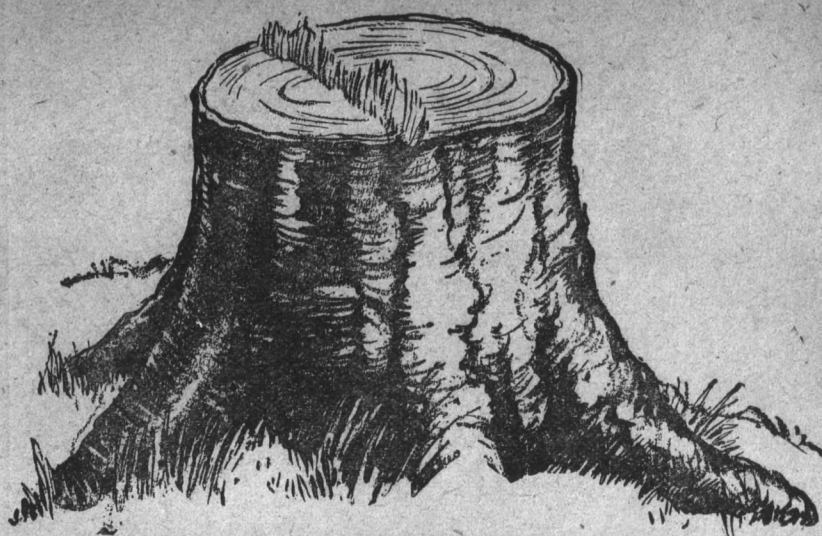
Will you please advise me the requirements of a pure-bred White Wyandotte?—S. E. D., Tustin, Mich.

—We are herewith publishing the requirements for the White Wyandotte, as given in the American Standard of Perfection.

Disqualifications: Ear lobes more than one quarter positive enamel white.

Shape: Head: short, round, broad. Beak: short, well curved. Eyes: full, oval. Comb: Rose, low, firm on head, top free from hollow center, oval, and surface covered with small rounded points, tapering to a well defined point at rear; the entire comb conforming to the shape of skull. Wattles and Ear-lobes: Wattles, moderately long, nicely rounded at lower edges, equal in length, fine in texture, free from wrinkles or folds. Ear-lobes, well defined, hanging about one third the length of wattles; smooth. Neck: short, well arched; Hackle, abundant, flowing well over shoulders. Wings: medium in size, not carried too closely to body; sides well rounded. Back: short, broad, flat at shoulders; saddle, broad, full, rising with concave sweep to tail; saddle feathers abundant. Tail: short, well spread at base; carried at an angle of fifty degrees above the horizontal; sickles, moderately long, curving

(Continued on Page 26)



Get these
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least
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FARMERS saved thousands of dollars last year by using Dumorite to clear their land. It has approximately the same strength as 40% dynamite, stick for stick, and the slow, heaving action of "20%," yet you get 135 to 140 sticks at the same price as 100 sticks of "40%."

Dumorite is non-freezing and will not cause headache. See your dealer regarding your season's supply. The Dumorite way is the easiest, quickest and usually the cheapest way to make your waste land pay you a profit.

Write us for Farmers' Hand Book of Explosives, a free 110-page book, which gives complete information covering the use of explosives on the farm.

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High Producing Vigorous PureBred BabyChicks

Capacity 150,000 healthy chicks
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Fully guaranteed, direct from Trapnested, Pedigreed Tom Barron and Hollywood Imported White Leghorns. World's champion layers. Not just a few 300-egg birds, but a high flock average egg production—that's where you make your profit. Hatched in the largest and finest Hatchery in Michigan, by those who know how. Bargain prices if you order now. We can also save you money on Brown Leghorns, Anconas, Barred Rocks, Rhode Island Reds and White Wyandottes. Satisfaction guaranteed or your money back.

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

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

STOP! LOOK! READ!

GUARANTEED BABY CHICKS

From **WORLD'S GREATEST LAYERS** and **LAYING CONTEST WINNERS**, **TOM BARRON ENGLISH S. C. WHITE LEGHORNS**, Imported stock. **SHEPPARD'S FAMOUS ANCONAS**, Direct. If we could show you our flocks and have you talk with our **CUSTOMERS** you would order **IMMEDIATELY**. Our flocks are all **CULLED BY EXPERTS** and headed with **VIGOROUS PEDIGREED MALES** of from 250 to 280 egg strain. Our chicks become wonderful **LAYERS** **YOU WANT EGGS? GET OUR CHICKS**. Write to-day for our free illustrated **CATALOG**.

SILVER WARD HATCHERY, Box 420, Zeeland, Michigan.



BABY CHICKS \$10 per 100 and UP

From selected, heavy laying, vigorous hens. White and Brown Leghorns, Anconas, 50, \$6.75; 100, \$13; 500, \$62.50. Barred Rocks, 50, \$5.50; 100, \$11; 500, \$57.50. Extra Select, \$2 per 100 higher. Mixed Chicks, 50, \$5.50; 100, \$11; 500, \$55. Well hatched in modern machines. Carefully and correctly packed and shipped. Postpaid. Full live arrival guaranteed. Bank reference and this guarantee makes you perfectly safe in ordering direct from this ad NOW. Get them when you want them. All orders have our careful personal attention. **WE WANT YOUR BUSINESS**. Catalog Free.

WINSTROM FARM & HATCHERIES, Box H 5, Zeeland, Michigan



Egg-Bred Baby Chicks

June Delivery, 10c Each. Extra selected, 11 1/2c.

ENGLISH WHITE LEGHORNS, BROWN LEGHORNS, 11 years of breeding for egg production. Highest quality chicks from tested layers. Satisfaction guaranteed. 100% delivery guaranteed. Order now. Bank reference. Catalog free.

ROYAL HATCHERY & FARMS, R. 2, Zeeland, Mich. S. P. Williams, Prop.

BABY CHICKS Postpaid to \$9 per 100 and Up

FROM HOGAN TESTED, FREE RANGE HEAVY LAYING FLOCKS. ALL VARIETIES.
WHITE and BROWN LEGHORNS. \$12.00
BARRED ROCKS and ANCONAS. \$13.00
BARRED ROCKS and R. I. REDS. \$14.00
WHITE WYANDOTTES, WHITE ROCKS, BUFF ORPINGTONS. \$15.00
BLACK MINORCAS, BUFF ORPINGTONS. \$16.00
All lots of 500 or more discounted.

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

CHICKS \$12.00 per 100 and Up

100% SAFE ARRIVAL GUARANTEED
PRICES—WHITE, BROWN and BUFF LEGHORNS, 50, \$7; 100, \$13; 500, \$60.
BARRED ROCKS, S. C. and R. C. REDS, ANCONAS, B. MINORCAS, 50, \$8; 100, \$15; 500, \$74.
WHITE WYANDOTTES, WHITE ROCKS, BUFF ORPINGTONS, 50, \$8.50; 100, \$16; 500, \$78.
SHEPHERDS 331 EGG STRAIN ANCONAS, WHITE MINORCAS, 50, \$8.50; 100, \$16; 500, \$78.
Hatched from selected heavy laying flocks that are well fed and cared for, insuring strong, livable chicks that will make a profit for you. POSTPAID TO YOUR DOOR.
ORDER DIRECT FROM THIS AD and SAVE TIME. Catalog free. Reference, Geneva Bank.
THE GENEVA HATCHERY, Box 505, Geneva, Ind.



GUARANTEED CHICKS

Hatched from High Laying Quality Fowls on free range, properly fed and housed to insure strong chicks.

BARRED ROCKS, S. C. REDS, MINORCAS, ANCONAS, 50, \$8; 100, \$15; 500, \$74.
WHITE WYANDOTTES, BUFF ROCKS, 50, \$8.50; 100, \$16; 500, \$78.
WHITE, BROWN and BUFF LEGHORNS, 50, \$7.50; 100, \$14; 500, \$65.

Postpaid to your door. 100% live delivery guaranteed. Catalog free. Bank Reference.
MORENCI HATCHERIES, Box B, Morenci, Mich. Member I. B. C. A.



CHICKS WITH PEP, \$11 per 100 and up

Selected Hogan Tested Flocks. Postpaid, full live delivery guaranteed. BUFF ORPINGTONS, WH. and SIL. WYANDOTTES, 50, \$9.25; 100, \$18; BARRED and WH. ROCKS, S. and R. C. REDS, MINORCAS, 50, \$8.25; 100, \$16; ANCONAS and HEAVY BROILERS, 50, \$7.25; 100, \$14; WH. BR. and BUFF LEGHORNS, 50, \$7; 100, \$13. MIXED, ALL VARIETIES, \$11 per 100 straight. On 500, 5% off; 1,000 10% off. Free Catalog. Member I. B. C. A.



HOLGATE HATCHERY, Box B, Holgate, Ohio.

CHICKS THAT MAKE PROFIT

\$10 PER 100 AND UP. From vigorous, pure-bred flocks on free range, selected for heavy-laying qualities and well cared for. Low prices considering exceptional quality. WHITE, BROWN and BUFF LEGHORNS, 50, \$7; 100, \$13; 500, \$62.50; 1,000, \$120. WHITE and BARRED ROCKS, WHITE WYANDOTTES, BUFF ORPINGTONS, 50, \$8; 100, \$15; 500, \$72.50; 1,000, \$140. Mixed, all varieties for broilers, \$10 per 100 straight. Postpaid to your door and full live count guaranteed. You can order now direct from this ad and get them when you want them. Bank Reference. Free catalog.



BLUFFTON HATCHERY, Box L, Bluffton, Ohio

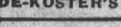
SUNBEAM HATCHERY

The Chicks that I sell are produced under my personal supervision in a good, modernly equipped hatchery which is kept in best possible condition. The parent stock is carefully selected and of best heavy laying strains, kept on free range, well housed and handled. Free from disease and properly fed. This enables me to produce strong, growing chicks which will mean PROFIT to my customers. PRICES: WHITE, BROWN and BUFF LEGHORNS, 50, \$7; 100, \$13; 500, \$62.50; 1,000, \$120. BARRED ROCKS, R. AND S. C. REDS and ANCONAS, 50, \$8; 100, \$15; 500, \$72.50; 1,000, \$140. WHITE and BUFF ROCKS, WHITE WYANDOTTES, and B. MINORCAS, 50, \$8.50; 100, \$16; 500, \$77.50; 1,000, \$145. SIL. L. WYANDOTTES, 50, \$9; 100, \$18; 500, \$87.50; 1,000, \$175. I guarantee full live delivery by prepaid post. Get your order in now and I will ship when you want them. Bank Reference. Catalog Free. H. B. Tipplin, Box E, Findlay, Ohio. Member I. B. C. A.



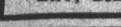
DeKoster's Hatchery

Strong, vigorous Chicks from selected heavy laying ENGLISH STRAIN WHITE LEGHORNS and BROWN LEGHORNS, 100, \$12.50; 500, \$60. THOMPSON & HOLTERMAN STRAIN BARRED ROCKS and ANCONAS, 100, \$18; 500, \$87.50. Postpaid, full live delivery guaranteed. Catalog free. Bank Reference.
DE-KOSTER'S HATCHERY, Box X, Zeeland, Mich.



BABY CHICKS

Hatched from strong and vigorous flocks of ENGLISH WHITE LEGHORNS and ANCONAS. BRED FOR HIGH EGG-PRODUCTION. We guarantee 100 per cent live chicks on arrival. Postage PAID. Prices reasonable. Instructive Catalog and prices free on request. QUALITY HATCHERY, Box A11, Zeeland, Mich.



BABY CHICKS and HATCHING EGGS

Direct from our farm at greatly reduced prices, only 9c up. Barred Rocks, White Leghorns and Anconas. Write quick for particulars and special introductory offer. MODEL POULTRY FARM & HATCHERY, Zeeland, R. 4, Michigan.

BABY CHICKS—REMARKABLE FOR SIZE and strength. Reasonable prices. Leghorns, Anconas, Rocks, Reds, Wyandottes, Orpingtons, Minorcas, Spanish, Brahmas. TYRONE POULTRY FARM, Fenton, Mich.

BABY CHICKS 12c AND UP
Member Mid-West Baby Chick Association.
THOS. G. CALLAGHAN, Fenton, Michigan

Rheumatism

A Remarkable Home Treatment
Given by One Who Had It

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

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

MARK H. JACKSON

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

CHICKS for June 19 Delivery

Improved S. C. English type White and Brown Leghorns, \$10.00 per 100; \$50.00 per 500. Extra selected \$12.00 per 100; \$67.50 per 500. From all good profitable layers, and our selected are from our very best layers.

This is our 12th year breeding, hatching and shipping chicks, and we are offering you chicks from the best layers at a very reasonable price. We pay the postage up to your door and guarantee you 100% safe arrival. Order direct from this ad to save time, for it pays to be a little ahead of time, or write for our free 32 page catalogue, Wolverine Hatchery, Zeeland, Mich.

Chicks

From select vigorous, heavy laying breeding stock. White, Brown Leghorns, Anconas, Barred Rocks. Our price is 12 cents and up. Guarantee 100% live delivery by prepaid post. Get your order in now—will ship when you want. Customers report "Big Profits" with these wonderful layers. Write today for illustrated Catalog. It's free. Reference: State Commercial Savings Bank, Member M. B. C. A. Queen Hatchery & Poultry Farm, Zeeland, Michigan

BABY CHICKS

You can now order Chicks in 11 breeds of the Pure Breed Practical Poultry that is making egg records on our customer's own farms. If you want stock that will make real money, send for our description and price list. All stock guaranteed 100% post paid. We want you to try our stock this year. It is the best practical stock you can buy.

STATE FARM ASSOCIATION
202 Chase Block Kalamazoo, Michigan.



CHICKS Barron Strain Selected White Leghorns. Produced under my personal care. Strong, vigorous chicks carefully packed to go safely. Postpaid, full live delivery guaranteed. 50 chicks, \$6.50; 100, \$12.50; 500, \$60. Get your order in early. Elgin Hatchery, Box 317A, Zeeland, Mich.

Hatching Eggs & Baby Chicks

Tompkins strain. For April and May chicks, per hundred, \$18.00. Eggs per hundred, \$8.00. Quality breeder of Rhode Island Reds, both combs. WM. H. FROHM, New Baltimore, R. 1, Mich.

White Leghorn CHICKS

Heavy Laying, pure bred, English strain. Flocks culled and 3 tested for laying ability. Strong, healthy chicks, 100 per cent live delivery guaranteed. Catalog, low prices list free. Write quick.
Catalpa Grove Hatchery, Box 4, R. 2, Holland, Mich.

WHEN WRITING ADVERTISERS
MENTION M. B. F.

REQUIREMENTS OF WHITE WYANDOTTE

(Continued from Page 25)

gracefully and closely over tail; coverts, abundant, filling out well in front, hiding the stiff feathers. Breast: broad, deep, round. Body and Fluff: Body, moderately short, deep, round; fluff, full-feathered, well rounded. Legs and Toes: Thighs, short, stout, showing outlines when viewed sideways, well covered with short feathers; shanks, short and stout, set well apart, well rounded; Toes, straight.—E. C. Foreman, Associate Professor of Poultry Husbandry, M. A. C.

FEEDING CHICKS AND CHICKENS—SOME OF MY RESULTS

WHEN chicks are first received from the company or hatched by your own hens it is not best to feed them until they are thirty-six hours old, as the yolk of the egg provided them with nourishment until they reach this age. Feeding before this time causes many deaths because the system is not ready to receive the food and bowel trouble results.

For their first meal a good feed would be a boiled egg, shell and all chopped fine mixed with three times its amount in bread crumbs. After a week or two a more suitable food for growing chicks would be rolled oats or screenings. Chicks need water constantly in summer and winter. Green fed is used as an appetizer.

After the chicks are a month old they need heavier food to build up their systems. Along with this heavier feed a soft mash should be fed. The ratio being one feed of soft buttermilk mash to every two feeds of grain.

Chicks must have animal feed, when they are on free range they can pick up bugs and worms themselves, but if they are confined you must give it to them in the form of meat scrap. Another thing they must be provided with, if confined it needs chick size grit because it is important to help them digest their food. Fine scratch sand should be provided for them if it is not possible to get grit.

After the chicks have been reared cracked corn and wheat give excellent exercise, if fed in litters from 3 to 6 inches deep so they will have to scratch for it. Hens cannot get too much exercise for if they don't have to work they get too fat and can't lay.

By feeding my chicks in this way I have raised them by having only eight deaths out of eighty. My hens have produced in the month of January, 214 eggs; February, 460 eggs; and March, 1,002 eggs, making a total of 1,676 eggs. Of these I have sold 123 dozens, besides using in our home 11 2-3 dozens and selling two settings at \$1.00 each. Selling the 128 dozens at an average of 40c. I have received \$55.73 and \$2.00 for setting making a total of \$57.73. The feed used amounted to \$23.45, netting me \$34.28.—Grant Gallup, Member Boys' and Girls' Club, Iron County, Mich.

CULLING HENS

IN many flocks a large loss is maintained every year through the keeping of unprofitable hens and it is important that culling be done regularly, but to do it right is the important thing. The two common methods resorted to for culling hens is to sell off those that have the rough, scaly legs whether or not their age is known. Scaly legs instead of indicating age, are caused by a microscopic mite known as the "scaly leg mite." This pest gets under the scales of the shank and toes and naturally the advance stages are more marked on the older chickens. This is not a reliable rule to follow in selecting the old hens.

There are two methods for marking birds, which can be followed successfully. When the chicks are newly hatched, it is an easy matter to clip the rear toenail, which if well clipped will never grow out again. This will not cause the chick any inconvenience and serves as a means of identification. To illustrate: the rear toenail of the left foot of all the chicks hatched in 1923 can be clipped. In the 1924 hatch clip the rear toenail of the right foot. In this way in the spring of 1925 all the chicks hatched in 1923 can be sold

BABY CHICKS

Best Paying, Heavy Laying, Pure Bred Tom Barron English White Leghorns, S. C. Rhode Island Red, Park's Island Red, Strong Barred Rocks, Healthy Chicks hatched from greatest and best incubator known. Chicks are given full twenty-one days and hatched under proper temperature.



Mr. Frank Fullerson, Niles, Mich., writes as follows: "From the 66 pullets we raised from your stock last year along with the thirty which we had, we got 1,610 eggs in December. Can you beat it?" We are the first and oldest importers of White Leghorns in this state.

Watch our pen number 17 in the Michigan Egg Laying Contest. It's coming strong! All flocks thoroughly culled and properly mated, to pure bred cockerels. Try some real chicks this year. Order now at new low prices. Instructive catalogue free.

BRUMMER-FREDERICKSON POULTRY FARM
Box 26 Holland, Mich.

HIGHEST QUALITY CHICKS

Michigan's Old Reliable Hatchery

(The most modern and best equipped Hatchery in the state)

PURE BRED English and American S. C. W. Leghorns; S. C. Anconas; B. Minors; Plymouth Rocks and R. I. Reds. Strong well hatched chicks from tested Hoganized Free range stock that make wonderful winter layers.

Chicks sent by Insured Parcel Post Prepaid to your door. 100% live delivery guaranteed. Fifteen years of experience in producing and shipping chicks has given absolute satisfaction to thousands. Write for illustrated free catalog and price list. Get lowest price on best quality chicks before you buy.
Holland Hatchery, R. 7, Holland, Mich.

289 EGGS

289 Eggs in one year, actual trap-nest record, "LADY MICHIGAN" also made record of 288 eggs in one year. She laid 294 eggs in 381 consecutive days. Sons and daughters of "LADY MICHIGAN" are now in use in our matings for 1923. If you want Real Barron Leghorns Single Comb Whites, get our 1923 catalog, and learn full particulars in regard to our stock which we have carefully bred for high-egg records for the past 21 years. Our best matings are made up of mature females with actual trap-nest records from 200 to 289 eggs. Chicks and Eggs for Hatching

that will put the PROFIT into your Leghorn flocks. Write postcard for catalog today and before ordering Chicks or Eggs elsewhere. STRICK POULTRY FARM, Route 4 O, Hudsonville, Mich.

WASHTENAW

HATCHERY CHICK PRICES: March 26th and following hatches: Barred Rocks and Reds, 50, \$8.50; 100, \$16; 500, \$75. White Rocks, White Wyandottes, 50, \$9.50; 100, \$18; 500, \$85. White, Brown and Buff Leghorns, 50, \$7.50; 100, \$14; 500, \$65. From hatches due March 12th and 19th add \$3 per 100 to these prices. Postpaid, full live delivery guaranteed. Our chicks are carefully selected and bred for high egg production. Order from this ad. Reference, Farmers and Mechanics Bank.
WASHTENAW HATCHERY, Ann Arbor, Mich.

WASHTENAW HATCHERY, Ann Arbor, Mich.

Day Old Chicks

From Select, Hogan Tested, Flocks on Free Range. Well-fed and handled to insure strong, vigorous chicks. Heavy Laying. PRICES: WHITE and BROWN LEGHORNS and ANCONAS, 50, \$7.50; 100, \$14; 500, \$65. BARRED ROCKS, 50, \$8.50; 100, \$16; 500, \$75. Hatched right and shipped right. Postpaid, 100% live delivery guaranteed. Bank Reference. Order direct from this ad. Circular free.
BORST & ROEK, Box P, Zeeland, Mich.

GREEN LAWN CHIX sent insured parcel post prepaid. Barred Rox, White Rox, R. I. Reds, and Black Minorcas, \$16 per 100. Brown Leghorns, English White Leghorns or Anconas \$14 per 100. Heavy Broilers \$14 per 100. Odds and Ends \$13.00 per 100. 5% discount on 500 or 1,000 lots. All varieties 1% each in less than 100 lots. Our 13th year producing high grade chix that please. Our method of shipping positively prevents chilling and crowding and we guarantee 100% live delivery. May, June, July 1c per chix less. Order from this ad and state just what you wish chix sent. A saving to cash customers. Deduct 5% if full order is sent with order. Reference: Fenton State Bank. GREEN LAWN POULTRY FARM, Fenton, Mich. Gus Hecht, Proprietor.

Pure Bred Chicks Buy 'Em Home

Broiler Chix.....11c W. Wyandottes.....17c
W. or B. Leghorns.....13c Buff Orpingtons.....17c
B. Rocks or Reds.....15c Light Brahmas.....22c
W. or Buff Rocks.....17c Black Minorcas.....16c
Add 35c if less than 100 lots wanted. Circular.
LAWRENCE POULTRY FARM
Dept. 8 Good Reference R. 7, Grand Rapids, Mich.

QUALITY BABY CHICKS S. C. Brown and English strain White Leghorn Baby Chicks. Write for catalog. Cocks Poultry Farm, Holland, Michigan.

WHITTAKER'S R. I. REDS—Michigan's Greatest Color and Egg Strain. Bred from winter layers for 13 years. Chicks and eggs. Write for free catalog. Interlakes Farm, Box 4, Lawrence, Mich.

CHICKS—WE HAVE SHIPPED THOUSANDS each season since 1904. Different breeds, free booklet with guarantee and delivery price. Freeport Hatchery, Box 10, Freeport, Mich.

CHICKS—SINGLE COMB BUFF LEGHORNS only Strong healthy chicks from good laying stock. J. W. WEBSTER, Bath, Mich.

CHICKS—ENGLISH S. C. W. LEGHORNS, \$10 per 100. Park strain Barred Rocks \$14 per 100. 100 live delivery guaranteed by parcel post. HENRY WATERWAY, R. 4, Holland, Mich.

Keep The Business Farmer Coming—See Page 26.

CHICKS

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

PURCHASE THIS YEAR'S CROP
OF CHICKS from tested layers, headed by large vigorous 260 to 285 Pedigreed Males.

CUSTOMERS REPORT BIG PROFITS
with these wonderful layers. Write today for our large illustrated catalogue. It tells all about them, it's free.

WYNGARDEN HATCHERY
Box B, Zeeland, Mich.

400,000 Chicks



Big, strong, Well-hatched Chicks from selected, healthy stock on free range, properly fed and housed to insure health and vigor. **WHITE, BROWN & BUFF LEGHORNS, 50, \$7; 100, \$13; 500, \$62.50; BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, \$8;**

100, \$15; 500, \$72.50. WHITE WYANDOTTES, 50, \$8.50; 100, \$16; 500, \$77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, \$9.50; 100, \$18; 500, \$87.50. POSTPAID.

We guarantee full 100% live arrival. Reference, Citizen's Bank. Order direct from this ad. and save time. Free circular.

MODERN HATCHERY

Box F, Mt. Blanchard, Ohio

Star Hatchery BABY CHICKS

From Select, Vigorous, Heavy Laying Breeding Stock



Prices Reduced

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

STAR HATCHERY, Box X, Holland, Michigan

ARISTOCRAT



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

Barron White Leghorns
Splendid, big, heavy weight, heavy laying hens.

Everlay Brown Leghorns
Beautiful business hen. Wonderful winter layers. Second to none. Sheppard's Famous Strain.

ANCONAS CHICKS
From all these great strains. Postpaid and full live delivery guaranteed. Also EGGS FOR HATCHING and Breeding Stock. Reference 2 Banks. Member M. B. C. A. Fairview Poultry Farm, Route 2 K, Zeeland, Mich.

Rosewood Farm

Healthy, Hardy Chicks

Well-hatched, carefully packed, and shipped. Select, heavy laying **WHITE LEGHORNS, 50, \$7; 100, \$13; 500, \$62.50; 1,000, \$120. Select ANCONAS, 50, \$7.50; 100, \$14; 500, \$67.50. Select BARRED ROCKS, 50, \$8.50; 100, \$16.50; 500, \$80. Postpaid, full live delivery guaranteed. Our chicks will render you the best of satisfaction and you will COME BACK TO US. We have had long experience in producing good Chicks and our flocks are second to none. Circular, free. **ROSEWOOD FARM, R 12 A, Holland, Mich.****

BABY CHICKS—FROM SELECTED FLOCKS
Six leading varieties. Popular prices and guaranteed delivery. Write for catalog and price list. **H. H. PIERCE, Jerome, Mich.**

The Court of Last Appeal

YOU are the judge and the jury. Your verdict is final. There can be no appeal—for this is the High Court of Public Opinion.

The wares of the world must appear before you—the product of every factory—the merchandise of every store. Those things that fail to measure up to your requirements are quickly condemned to oblivion.

The manufacturer who advertises deliberately places his merchandise on trial. He openly courts your critical inspection. He invites comparison. He directs your attention to his goods and then forces those goods to stand on their own merits.

If he were not sure of his wares he would not dare to advertise. For advertising would put him to a test he could not meet, and thus hasten the end of his business career. It would be business suicide.

You can depend on the man who advertises. He KNOWS his product is good. That's one reason why it pays to read the advertisements you find in this paper. It is through advertising that you are able to keep in touch with the GOOD things that progressive business men are spending their money to introduce and to keep before you.

Base your judgment on the advertisements

and the newer hatched chicks can be marked with the 1923 system.

The average hen does not lay enough eggs to pay for her keep after the second year or laying season and unless she is of exceptional value as a breeder she should be disposed of. It is during the pullet year that the majority of hens make the best egg records and therefore it is good practice to feed for egg production the first year. The second year the hens that were the best layers and of strong vitality should be used for breeding. The third year they should be disposed of.

Another reason for culling hens is to keep down disease. For example one disease in particular is more evident in farm flocks than is generally thought of and that is tuberculosis. Where the disease is present in the flock, the older fowls show the larger percentage of infection and are usually in the advance stages of the disease. So culling will be a great help in doing away with this trouble.

We would not cull now if hens are laying, but do so as soon as the laying period is over this spring.

HOW TO PREVENT DISEASE

THERE is no doubt that fowls under modern forced conditions have more ills than fowls did years ago when they roamed the fields in an almost wild state. Forcing and pampering and inbreeding in various ways has caused it. But who would be willing to give up the various improvements and go back to the woods' fowls of various types and colors and laying about 59 eggs a year and that in the late spring-time?

Thousands of progressive and successful poultrymen and up-to-date farmers are faithfully striving to banish the conditions which produce disease, and are living examples of how fowls should be kept for health. Fowls kept in close confinement with no possible chance to escape the existing conditions very frequently are subject to about as many ills as their keepers, and that means legion. It would seem. The great harvest of death among the feathered tribes due to the sins of commission and omission is too great even to estimate. As someone has said, "stop sinning and attend to business," applies admirably in this case.

The secret of sickness has been discovered. Disease is due to germs of a certain kind which develop or sprout, if you please, when the conditions are just right, when the filth—or rather the filth—is right. The blood and tissues of the fowl are the garden for the germs. The feed in the digestive tract is very often the seed-bed for these disease germs. You may read of them as microbes, bacteria, ferments and the like. We are told that there are germs in a healthy organism which devour or destroy the enemy germs so that they fail to get in their work. They are of various names and character and so numerous that the average man of practical ideas does not have the time or the inclination to study them individually enough to do him any good in his life-work. On the other hand, it is very essential for him to know that stagnant pools of water with a green scum over it, stale garbage heaps, impure air, damp chilly houses and coops are all favorable breeding places for the disease germs, and hostile to the good health of poultry.

The question then resolves itself into whether the poultry man shall look well to the sanitary conditions with which he may surround his poultry by careful work, or utterly ignore all such things, allowing his flocks to drift into a state of disease and trouble at almost any time, and depend upon doctoring to get results.

Preventative measures not only consist in sanitary measures but in starting with good stock, and if any new fowls are purchased proceeding to put them through quarantine until you are satisfied that they have no diseases which may be transmitted to your own flocks before putting them with them. The same course should be pursued in handling your own stock. If any should develop disease take it away from the balance of the flock to treat it, and do it at once. Do not put it back until you are sure that all traces of trouble have passed. Should it be badly affected the safest remedy is the hatchet and burying deep or burning. Too close confinement in small

(Continued on Page 28)



Our Business Egg-Bred Leghorns Produce Our Dependable Quality Chicks! The Famous Egg Basket Strain Single Comb White Leghorns Mated to Hollywood 250 to 300 Egg Pedigreed Sires

Profits in Large White Eggs and Plenty of Them When Prices Are High. That's what you want, and that what you get in the Famous Egg Basket Strain.

Our parent stock is selected with the greatest of care by experts as to their laying ability and health. They are of large size, long, deep, wedge-shaped bodies, with keen, alert eyes, and large lopped combs.

These wonderful Pedigree-Sired Matings, combined with our fifteen years of skillful breeding produce our Egg Basket Strain Leghorns, famous all over the United States for their large size and great laying quality of large white eggs. They are proven winter layers and consistent winners for our customers at leading shows and Egg-Laying Contests. They should be the best investment you ever made in baby chicks.

Q. DEVRIES Grandview Poultry Farm, Box L, Zeeland, Mich.

Order Direct From This Ad For Immediate Delivery

Prices, for May and June delivery, on our Hollywood Pedigree-sired extra select Grade A chicks: \$12.00 per 100; \$55.00 per 500; \$100.00 per 1,000; Grade B chicks: \$11.00 per 100; \$50.00 per 500; \$90.00 per 1,000; postpaid. 100% live delivery guaranteed. Hatches every Tuesday. Order now! 10% deposit books your order and assures future delivery just when you want them. Can also ship C. O. D.

FREE Our large illustrated circular describes our wonderful Leghorns and our large breeding institution, sent free.

300,000 Chicks

Guaranteed Michigan Bred and Hatched

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

KNOLL'S HATCHERY, Box L, Holland, Michigan

CHICKS, \$10 per 100 and up

Postpaid to your door and full live count guaranteed

White, Brown and Buff Leghorns	Prices on	50	100	300	500	1,000
WHITE, BROWN and BUFF LEGHORNS		\$7.00	\$12.00	\$38.00	\$62.00	\$120.00
BARRED ROCKS, BLACK MINORCAS and ANCONAS		8.00	15.00	44.00	72.00	140.00
WHITE ROCKS, WHITE WYANDOTTES and REDS		8.50	16.00	46.00	75.00	145.00
BUFF MINORCAS, 50, \$13; 100, \$25. MIXED CHICKS FOR BROILERS, 50, \$6; 100, \$11; 500, \$50. Postpaid, full live delivery guaranteed. Hatched in the best possible manner from good, vigorous, pure-bred, heavy laying flocks on free range. Carefully selected and packed to go safely. No catalog. Order right from this ad. and save time. Reference, Citizen's Saving Bank. You take no chances.						

THE EAGLE NEST HATCHERY, Box K, Upper Sandusky, Ohio
Only 7 hours from Grand Rapids. Can reach any point in Michigan in 24 hours.

TIMMER'S HATCHERY



PROFIT-MAKING CHICKS
WHITE and BROWN LEGHORNS
ANCONAS
BARRED ROCKS and REDS

QUALITY CHICKS at REASONABLE PRICES. Bank reference. **TIMMER'S HATCHERY, Route 3A, Holland Michigan.**

Hardy, healthy Chicks from selected, heavy-laying flocks. Carefully packed and shipped. Post paid to your door, and Full Live Count guaranteed. Send for our new, Free Catalog TODAY.



BABY CHICKS

White and Brown Leghorns, \$13-100
Anconas, \$14-100

GOING UP

ONE MILE AHEAD OF

GET CHICKS ON

the day you want them

IN QUALITY

R. I. REDS, ROCKS and MINORCAS, \$16.00 100. Extra selected \$2.00 per 100 higher. 100% safe arrival guaranteed. Will ship any number of 25 or more, special prices on 500 and over.

COLONIAL POULTRY FARMS, Box B, Zeeland, Michigan.

HILLVIEW HATCHERY

GUARANTEED TO ARRIVE



Strong and Healthy. Chicks from selected heavy laying Hogan tested flocks. **ENGLISH WHITE LEGHORNS and BROWN LEGHORNS. Heavy Laying EXTRA GOOD BARRED ROCKS.** Postpaid to your door and full live delivery guaranteed. Our flocks are kept on free range, properly fed and cared for insuring the vigor necessary in the Chicks to live and MAKE A PROFIT. Give us a trial and you will come again.

HILLVIEW HATCHERY, Route 12 E, Holland, Michigan.



Hardy Northern Bred Chicks

Barron S. C. W. LEGHORNS
Park Strain BARRED ROCKS
The greatest egg producers known. Heavy winter layers. See record of our pen 16 now at the Michigan International Egg Laying Contest. Get quality chicks at reasonable prices from Holland's pioneer poultry farm. Catalogue free.

Pine Bay Poultry Farm, Box 56, Holland, Mich.

BABY CHICKS

Prices on our very best A-1 English White Leghorn and Ancona Chicks reduced to \$11.50 per 100; \$55.00 per 500; \$105.00 per 1,000. Get our descriptive catalog or order from ad. **Model Poultry Farm & Hatchery, Zeeland, Mich.**

WHITE DIARRHOEA

Kills millions of Chicks each season. **THEY CAN BE SAVED** by using **"FADOL"**—a guaranteed remedy and preventive. \$1 per bottle. Postpaid. Enough to successfully treat 650 Chicks. Your money cheerfully refunded if not satisfactory. Bank reference. You take no chances. Send your order **TODAY** and be **INSURED** against loss. Circulars free. Dealers wanted everywhere.

FADOL REMEDY CO., Box 507, Norwalk, Ohio

KEEP THE BUSINESS FARMER COMING SEE PAGE 28

POULTRY BREEDERS' DIRECTORY

Advertisements inserted under this heading at 30c per agate line, per issue. Commercial Baby Chick advertisements 45c per line. Write out what you have to offer and send it in. We will put it in type, send proof and quote rates by return mail. Address The Michigan Business Farmer, Advertising Department, Mt. Clemens, Michigan.

PULLETS, HENS AND COCKERELS

S. C. White Leghorns and S. C. and R. C. Black Minorcas. Must make room before cold weather. About ready to lay.

LAPHAM FARMS, Pinckney, Mich.

JOHN'S BIG BEAUTIFUL BARRED ROCKS are hen hatched, good layers, quick growers, light and dark matings, 30-eggs \$3.50; 50-\$5.00 postage paid circulars. John Northon, Clare, Mich.

SICILIAN BUTTERCUPS. GOOD YEAR around layers of large white eggs; also White Rocks, good laying strain. Eggs \$1.50 per 15. **IDA PRAUSE, R. 3, Maple City, Michigan**

HATCHING EGGS

HATCHING EGGS

S. C. White Leghorns. Tom Barron Strain, 250 egg utility line. November to April, average 65 per cent. Pure white, plumage. Range grown, healthy, vigorous stock. Eggs \$1.50 per 15; \$4.00 per 50; \$7.00 per 100. Prepaid. Limited supply. Order from this ad now. **MAPLEWOOD POULTRY FARMS** C. W. Bovee, Prop. North Star, Michigan.

BUFF ROCK EGGS BY 10 LB. MALES and 1st Cincinnati, O., winners. Hogan tested hens, heavy layers. **J. C. CLIPP & SONS, Box M, Safford, Ind.**

THOROUGHbred BUFF ROCK EGGS from Blue Ribbon Winners, \$1.50 per 15; \$9.00 per 100. **BALDWIN & NOWLIN, R. 4, Laingsburg, Mich.**

ARISTOCRAT DARK BARRED PLYMOUTH Rocks. Foundation stock direct from Holterman's choicest matings. Eggs from special pen at \$8 for 15 prepaid. From other pens at \$3 and \$5. Satisfaction guaranteed. **R. W. BRANDT, R. 4, Box B, Saginaw, W. S., Michigan.**

White and Barred Rock Eggs for Hatching. Pure, Prize winning, utility strains, selected pens, \$1.35 per setting, flock \$1.00 a setting, delivered P. P. special on quantity. Dawson's Farm, R. No. 4, Muskegon, Michigan.

BARRED ROCK HATCHING EGGS. NORMAN Heavy Laying Strain. **MRS. JESSIE B. DEAN, R. 1, Mason, Mich.**

BARRED ROCK HATCHING EGGS. PARKS 200-egg strain. \$2 per 15; \$5 per 50; \$10 per 100 by prepaid parcel post. **R. G. KIRBY, R. 1, East Lansing, Michigan.**

White Rocks. Heavy Layers, Choice Birds. Prepaid guaranteed eggs. 15, \$1.50; 50, \$3.50; 100, \$6.50. **Mrs. Florence Howard, Petersburg, Mich.**

FOR SALE—BARRED ROCK HATCHING EGGS from good winter layers. \$1.25 per 15 or \$2.00 per 30 prepaid. **Mrs. Frank Millikin, R. 1, Roscommon, Mich.**

PURE BRED BUFF ORPINGTON EGGS AT \$2.15; \$5.50-59. Prepaid. **MRS. ANNA LA NOUE, Fostoria, Michigan.**

THOMPSON STRAIN BARRED ROCK EGGS by 9 lb. males, bred to lay. Dark matings \$1.75 per 15; \$3.00 per 30 prepaid. **MRS. FRED KLOMP, St. Charles, Michigan.**

SINGLE COMB RHODE ISLAND WHITES. Eggs now \$1.75 per fifteen. **JNO. A. HARTGERINK, Box W., Zeeland, Mich.**

ROSE COMB RHODE ISLAND REDS. HATCH- ing eggs \$1.25 per setting. Postpaid. **Mrs. Albert Harwood, R. 4, Charlevoix, Mich.**

REDS: BOTH COMBS. CHESTER COUNTY and Harrison Pierce strain. Eggs \$1.50 per 15 postpaid. **Leo Van Conant, New Haven, Mich.**

EGGS FOR HATCHING—UTILITY STOCK. Grand White Wyandottes—M. A. C. Champions. Good, square deal. Reasonable prices. Send for price list. **C. W. HEIMBACH, R. 5, Big Rapids, Michigan.**

WHITE WYANDOTTES MARTIN STRAIN. Eggs for hatching. **WAYNE CHIPMAN, R. 2, Washington, Mich.**

SILVER LACED AND WHITE WYANDOTTES Four large, beautiful roosters. Eggs \$1.50 per 15. **C. W. BROWNING, Portland, Michigan.**

S. C. ANCONAS (SHEPPARD STRAIN) EX- cellent layers. Eggs \$1.25 per 15. **MRS. GILBERT BROWN, Wheeler, Michigan.**

SILVER SPANGLED HAMBURG Eggs for Hatching. \$1.50 setting. Write for prices on all varieties. **ROSEDALE FARMS, Port Huron, Michigan.**

BOURBON RED TURKEYS. EGGS 50c EACH. **THOS G. CALLAGHAN, Fenton, Michigan.**

Mammoth Bronze Turkey Eggs for Hatching. Large, Pure, Disease-free birds, 50c each delivered P. P. Dawson's Farm, R. 4, Muskegon, Mich.

MAMMOTH PEKIN DUCK EGGS FOR SETTING \$2.00 or two settings \$3.00. Also Wild Mallard Duck eggs same price. Very choicest stock. All orders prepaid. **Cedar Bend Farm, Okemos, Mich.**

ROUEN DUCK EGGS BY SETTING OR 100 **Mrs. Arthur Rutledge, R. 4, Big Rapids, Mich.**

LEGHORNS

LEGHORNS

S. C. Buff Leghorn Hens, Pullets and Cockerels. Hens and pullets \$2.50 each; cockerels \$3.00 to \$5.00 each. Show birds a matter of correspondence. **LAPHAM FARMS, Pinckney, Mich.**

PULLETS BARRON ENGLISH WHITE Leghorns, eight weeks to maturity—May to October. Breeding flocks repeatedly culled by experts. Extra large and vigorous. Wedge shaped bodies, big looped combs. "Lay-bilt" in every way. Also breeding cockerels. Satisfaction and more or money back. **MORSE WHITE LEGHORN FARM, Belding, Michigan.**

TURKEYS—DUCKS—GEESE

M. BRONZE TOMS, 16 LBS. \$17.00; HENS, 10 lbs. \$15; 5 eggs prepaid, \$4; 10, \$7.50. **RALPH WISE NURSERIES, Plainwell, Mich.**

HIGHEST PRICES PAID FOR LIVE AND Dressed Poultry, Veal, Eggs. A square deal always. **C. E. McNEILL & CO., Chicago, Ill.** 825 W. So. Water St.,

HOW TO PREVENT DISEASE

(Continued from Page 27)

houses with insufficient ventilation is a very common cause of disease. Let everything be light and airy and full of sunshine.

Keep the houses and coops clean and free from mites and lice, both of which are deadly enemies to fowls. Do not wait for a sign of mites to appear but go right after them, and use methods to destroy them if they are present.

The feeding should be carefully guarded, and nothing but the finest and soundest of grain and feedstuff used. Musty grain will put a lot of fowls on the dumps about as quick as anything we can think of. They may not get sick unto death right off but they will get mighty out of condition and be hard to get right again. Good fresh, cool water and shade are real essentials.

A great preventative of disease is found in the use of Epsom salts given once in two weeks during the hot months, and once a month during the rest of the year. It should be given at the rate of one-third teaspoon to the fowl, dissolved in water and then used to wet a mash for them; fed in the morning is preferable. This item is too important to be neglected, so take notice.

A TEN DOLLAR START

"WHEN I came out here on my little acre and a half, nine years ago, I had only \$10 left on which to live until I could get a start with poultry," began Mrs. C. Jewett of Auburn. "I came largely for my health, since the doctors told me I wouldn't live. I had to do all the work myself, but it was the making of me and I built up my little home, which I would not trade for the best property in Seattle."

"I began with what few ducks I could buy and three duck eggs. A friend of mine received a half dozen eggs from England and she divided with me. All I got out of the setting was a drake, but I have kept him for breeding up the flock. I also secured some good African geese and I still have a gander, which I call Jiggers, and five hens."

"A few years later I got started with China pheasants by buying a few eggs. I had to pay a license of \$10 to begin and \$5 each year thereafter. I find that they pay well, mostly from the sale of eggs and young pheasants, but I prefer to sell the eggs, since there is less labor involved. This spring I took a contract to hatch 200 pheasant eggs for the county game commission and will use Japanese Silky hens, since they can handle pheasant eggs better than a larger hen. They also make good mothers for the young birds after they are hatched."

Mrs. Jewett also has a pen of Light Brahmans, which she is raising for the production of capons. She has found a good demand for well-fattened capons, and has a few which have been fattened over winter and weigh six pounds at the age of 7 months, dressed and drawn. This flock will be increased this year, and a new cockerel secured with the idea of producing as many capons as possible during the next few years.

In another pen Mrs. Jewett keeps a flock of hens which are crossed between White Leghorns and Wyandottes. While she does not recommend this cross, she merely gives the figures showing the egg production for January to show what can be done with a small flock. The 50 hens produced a total of 84 dozen eggs during the month, which were sold at an average of 27 cents a dozen. This made a total of \$22, \$14 of which was clear profit, above the cost of feed. The birds got a balanced ration of scratch feed and egg mash together with such green feeds as cabbage, carrots and other roots furnished from the home garden. This pen will be kept as a commercial flock.

A few turkeys are kept merely to supply the demand for turkey eggs, and only a few eggs are hatched under hens which are not sold immediately for setting. A number of bantams are also kept about the place, partly for curiosities, and also to supply a small demand for eggs.

"I have had better success with my ducks and geese than I had ever expected and think it is one of the most interesting games of the poultry industry," remarked Mrs. Jewett. "I have only 19 ducks and three

drakes, but I have gotten as many as 17 eggs a day and never get less than 13 at this time of the year."

"There has been a good demand for setting eggs and I have sold most of the eggs for this purpose. I can also get a good price for the young goslings and have found it profitable to set a few of the Rhode Island Red hens with duck eggs. They make good mothers, but I prefer to raise the ducklings under a home-made brooder and set the hens over again."

"I have always kept the ducks and geese in the same lot and find that they do not interfere with each other. A small pond or swimming tank is always kept full of running water and they are allowed access to this at all times. I have only 10 geese now, since I just sold off some of the best stock. There are two breeds, the Toulouse and the African. There is a demand for both the young stock and for the setting eggs, but I would just as soon sell the eggs, as I can easily get 50 cents each."

"Geese are very easy to raise, since they need very little grain during the summer, but will get the biggest part of their living from grass and other green stuff that can be spared from the garden. I have a small lot in which the geese and ducks are kept and I will have it plowed and seeded to rye. This will be fenced off and the birds turned in when the grain is about six inches high."

"While both the ducks and the geese are very fond of water, it is not necessary that they have access to a pond. The ducks are what are called dry land ducks and will get along with very little water. They are better contented, however, if they can have a small pond to swim in and it is not so hard to furnish such in almost any lot. It is also a good plan to furnish boxes or small houses where the ducks can have their nests. Some of them will lay on the ground, anyway, but it is well to encourage them to use the nests."

"I have a home garden in which I raise a large part of my table supply," explained Mrs. Jewett. "This is good garden soil, and I keep it well fertilized with hen manure and can grow almost anything. The garden also furnishes a good source of green feeds for the birds, and I can keep practically all of the pens supplied during the summer. While I have a large collection of flowers about the house. I do not plan on selling anything of this kind. They are used more to add beauty to the yard and to create a more home like appearance."

"It has been hard work to build up even as small a home as this, but it has been well worth while. I have done practically all of the work myself up until last summer, am 52 years old, and was never healthier in my life. I attribute it all to the abundance of outside air and exercise which a person gets when doing hard work of this kind. I have had good offers for my place, but have refused them all because I much prefer a home to the money it would bring. I would be a long time building up another, and I would probably spend the money before another home was completed."—Washington Farmer.

DISTINCT POULTRY BRANCHES

The poultry Business, east and west, is going broken up into several distinct branches—breeding, producing market eggs, producing market fowls, hatching, selling day-old chicks, etc., and Professor A. G. Lunn of the Poultry Department of the Oregon Agricultural college believes that if the entire east develops as a market producing section the demand for stock will find its way to the Pacific coast. Then if the time ever comes when the west can not compete with the east in commercial egg production our opportunity to develop poultry farms will come along the line of breeding.

JES' THE SAME

"A lot of talk," said Uncle Eben, "don't interest nobody 'cep'in' de person dat's doin' it; same as what you say to a mule or a pair o'dice."—Washington Star.

HIGH COST OF MARRIAGE

"It's got so these days that a man can hardly wed unless he can show the girl two licenses." "Two licenses?" "Yes, marriage and Automobile."

I wish we could have The Michigan Business Farmer come every week. I can hardly wait two weeks for my paper, but the old saying is "good things come to he who waits."—E. G. Hale, Turner, Michigan.

NEW SUBSCRIPTION RATES

The Michigan BUSINESS FARMER

(Effective April 2nd, 1923)

ONE YEAR60
TWO YEARS	\$1
FIVE YEARS	\$2

EVERY subscriber at the above rates is entitled to ALL the Departments of Service which have made The Business Farmer famous, so long as the term of subscription lasts.

You know The Business Farmer is the most practical, and fearless because it is the only independent farm paper published in Michigan.

The Michigan Business Farmer,
Mt. Clemens, Mich.

I enclose \$..... for a years subscription, this entitles me to every department of Business Farmer Service, without further cost for the full period of my subscription.

M..... RFD No.....

P. O..... STATE.....

(If it is a Renewal, mark X here ☐ and if possible send the address label from this or any recent issue to avoid mistakes.)

The Agricultural and Business Situation

Revised Monthly by the Department of Research of the American Farm Bureau Federation.

A committee of eighteen economists called by Secretary H. C. Wallace to consider the agricultural outlook and to prepare a statement which will provide a basis upon which readjustment to meet the economic situation may be made by agricultural producers, reported on foreign and domestic demand and certain leading products as follows:

FOREIGN DEMAND:

The foreign outlook, on the demand side, seems slightly less favorable to our farmers in 1923 than it was in 1922. The favorable factors with respect to demand are: First, the influence of American prosperity upon the demand for European goods; and second, the possibility that the slight business recovery that has occurred in a number of European countries may gradually gain momentum. Despite the tariff, European exports to the United States in recent months have been considerably larger than for the same period a year ago.

The unfavorable factors are: First, the progressive piling up of Government debts on the continent of Europe, with its effect upon exchange, currency and business; second, the Ruhr situation.

DOMESTIC DEMAND:

Most competent observers seem to agree that we may expect general business prosperity to last at least six to nine months longer. If this opinion is correct, demand will be distinctly more active next autumn than it was last autumn insofar as the demand for farm products depends upon the purchase of American families, not themselves on the farms.

WHEAT:

The American exports of wheat during the last two years were unusually large owing to the low exports from eastern Europe, and continued low production in some countries in Europe. These exports should not be taken as normal nor be expected to continue permanently. The European countries are making efforts to put their grain production on a pre-war basis and as they become able to accomplish this it is to be expected that our exports will decline and that our production should be readjusted to meet these changing conditions.

The condition of the winter wheat crop in the United States is unfavorable. The intended plantings of spring wheat are 94.5 per cent of last year's acreage and weather thus far has been unfavorable for spring planting.

COTTON:

The world's consumption of American cotton in 1921-22 was about 12,600,000 bales; the indicated world's consumption for the year 1922-23 is not less than 13,000,000 bales. There is no evidence at present that the consumption of 1923-24 will fall below this figure.

The available information indicates, however, that the world carry-over of all cotton on July 31, 1923, will be 6,800,000 bales (largely of foreign short staple cotton), compared with 6,700,000 bales in 1922 and 10,500,000 bales in 1921, and that the use of American cotton will be little, if any, restricted on account of foreign production.

On the basis of farmers' intentions to plant 12 per cent greater acreage than they planted in 1922, the cotton acreage harvested in 1923 would be 36,888,000 acres. If the yield per acre in 1923 should prove to be the same as the average for the five years 1918-22, the total crop would be 11,810,000 bales.

TOBACCO:

The intended plantings for 1923 exceeds the acreage of 1922 by 10 per cent, the average acreage for 1918-22 by nearly 9 per cent, and the average acreage for 1909-13 by 55 per cent. Conditions of production and supply in the main control. There is nothing in the probable demand sufficient to offset the contemplated increase of 10 per cent in planted acreage; particularly when we consider that the 1922 acreage was above the normal and that the trend of prices since 1920 has, on the whole, been downward.

CORN AND HOGS:

The corn situation at this date is about normal, stocks on farms being almost exactly the same as the 5-year pre-war average. Between now and the time the new crop is harvested there will be some tendency toward corn shortage because of the large number of hogs on feed. Hog production has been heavy and is still in a state of expansion.

The prospects which producers must face before a year has elapsed is the absorption by domestic and foreign consumers of a surplus of over six million hogs and 250 million pounds of stored products. This represents a surplus of over seven million hogs, approximately 12 per cent, above last year's production.

I. Production and Trade

I. Agriculture: U. S. Production—000,000 omitted.				
	1922	1921	Average 1916-1920	1922*
Corn, bu.	2891	3069	2831	102
Wheat, bu.	856	815	799	107
Oats, bu.	1215	1078	1413	85
Barley, bu.	186	155	197	94
Rye, bu.	95	62	68	139
Buckwheat, bu.	15	14	14	107
Potatoes, bu.	451	362	373	128
Sweet Potatoes, bu.	110	99	89	123
Hay, all, tons.	113	98	102	111
Cotton, bales	9.76	7.95	12	81
Tobacco, lbs.	1325	1070	1378	96
Flaxseed, bu.	12	8	11	109
Rice, bu.	42	38	42	100
Peanut, bu.	57	33	44	129
Pears, bu.	19	11	14	136
Apples, total, bu.	204	99	179	114
Apples, com'l, bbls.	31	22	27	115
Sugar Beets, bbls.	5	8	7	71
Cranberries, bbls.	12	9	13.3	90
Beans, bu.	18	14	17	105
Onions, bu.	1	1	1	143
Cabbage, tons	37	46	40	93
Sorghum, gal.	1.9	1.5	1.5	127
Cloverseed, bu.	624	829	1043	59
Peanuts, lb.	26	29	32.1	81
Hops, lb.				

*As percentage of average 1916-1920.

World Production—000,000 omitted.

	1922	1921	Average 1909-13
Wheat, bu. (1)	3,058	3,069	2,890
Corn, bu. (2)	3,450	3,781	3,572
Oats, bu. (3)	785	773	
Rye, bu. (4)	3,003	2,759	3,003
Barley, bu. (5)	833	818	882
Potatoes, bu. (6)	3,123	2,445	3,066
Cotton, bales (7)	16	14.1	19.6

(1) Russia and Mexico excluded. (2) 17 countries. (3) 18 countries. (4) 27 countries. (5) 25 countries. (6) 16 countries. (7) 500 pounds net, linters excluded.

2. Mining (Federal Reserve Bank of New York):

Figures express production as a percent of normal. In estimating normal production, due allowance is made for seasonal variation and year to year growth.

	Feb. 1923	Jan. 1923	Feb. 1922
Anthracite coal	112	108	99
Bituminous coal	81	83	82
Petroleum	124	124	111

3. Manufacturing (Federal Reserve Bank of New York):

	1922	1921	1920
Wheat flour	109	93	105
Meat	109	104	98
Sugar	121	115	129
Cotton	108	103	92
Pig iron	103	102	57
Steel ingot	98	98	58
Wood pulp	100	100	90
Cement	159	157	82
Wool	138	115	
Copper	89	94	33

* Not available. † Preliminary.

4. Building:

	Mar., 1923	Feb., 1923	Mar., 1922
Contracts awarded in 27 States: (F. W. Dodge Co.)	10,546	6,338	9,250
Value (000,000 omitted)	\$ 334	\$ 230	\$ 294

5. Transportation:

	Week Ending April 7, 1923	Same Week Year Ago	Week Ending April 7, 1922
Freight car loadings:			
Total	895,767	905,219	714,268
Grain and grain products	39,353	41,532	31,598
Livestock	30,883	31,039	25,024
Coal	164,089	186,327	69,456
Coke	16,076	15,240	8,599
Forest products	73,957	75,548	54,680
Ore	15,381	11,818	8,259
Merchandise	234,208	229,146	243,718
Miscellaneous	321,820	314,569	272,934

*As percentage of week year ago.

6. Employment:

	Mar., 1923	Nov., 1922
Out of 65 industrial centers employment:		
Increased over previous month in	54	54
Decreased from previous month in	11	11

7. Bank Clearings:

	Units of \$1,000,000,000	Mar., 1923	Feb., 1923	Mar., 1922
New York City		\$19.77	\$16.78	\$18.72
Outside New York City		17.58	14.17	14.04

8. Mail Order Sales:

	March 1923	March 1922
Montgomery Ward & Co.	\$12,975,078	\$8,031,474
Sears Roebuck	\$19,754,338	\$15,801,061

II. Foreign Trade

I. Exports: (000 omitted)				
	1923	1922	Eight Months Ending February—1923	February—1922
Commodity:				
Grand total, all exports	\$302,106	\$246,133	\$2,613,285	\$2,435,848
Beef and veal, lbs.	2,567	2,579	20,791	23,359
Pork, lbs.	72,210	59,956	530,073	460,356
Lard, lbs.	89,055	75,520	600,176	597,477
Neutral lard, lbs.	2,481	2,571	17,087	14,163
Butter, lbs.	639	500	7,169	3,760
Cheese, lbs.	424	495	2,772	5,414
Hides and skins	233	211	2,467	3,130
Corn, bu.	8,699	22,052	74,312	112,672
Meal and flour, bbls.	49	50	352	495
Wheat, bu.	5,991	5,576	126,492	172,448
Flour, bbls.	1,379	1,203	10,497	11,037
Oats, bu.	589	239	17,111	23,359
Meal and rolled, lbs.	7,238	3,778	79,029	58,101
Fruits and nuts	4,522	4,464	59,724	49,642
Vegetable oils, fats	973	1,243	9,218	9,028
Sugar, lbs.	65,942	135,270	422,133	789,031
Leaf tobacco, lbs.	25,978	25,846	297,103	308,564
Cotton, bales	360	338	4,112	4,522
Wool, lbs.	109	60	840	761

2. Imports:				
	December—1922	December—1921	Twelve months ending December—1922	December—1921
Commodity:				
Grand total, all imports	\$293,464	\$237,496	\$3,112,549	\$2,509,148
Beef and veal, lbs.	2,046	3,422	36,694	32,378
Pork, lbs.	100	108	818	816
Butter, lbs.	3,156	2,602	6,957	18,558
Cheese, lbs.	7,036	3,399	46,573	26,866
Hides and skins	12,903	5,769	101,045	67,561
Corn, bu.	3	6	113	164
Oats, bu.	12	220	1,299	3,565
Wheat, bu.	2,581	2,052	22,643	23,286
Wheat flour, bbls.	51	58	694	966
Fruits and nuts	6,472	10,116	72,394	73,487
Vegetable oils, fats	3,859	4,320	53,608	39,880
Sugar, lbs.	317,674	394,954	9,721,620	5,967,486
Leaf tobacco, lbs.	422	194	6,550	5,122
Cotton, bales	72	64	390	291
Wool, lbs.	45,817	12,520	376,795	320,666

3. Prices of Foreign Drafts:				
	Nominal Gold Value	Price of Demand Drafts	April 23, 1923	March 19, 1922
England	\$4.87 to 1 £ Sterling	\$4.645	\$ 4.70	\$4.43
France	19.3c to 1 franc	6.66c	6.46c	9.34c
Germany	23.8c to 1 mark	.0034c	.0048c	.427c
Belgium	19.3c to 1 franc	5.76c	5.76c	8.60c
Italy	19.3c to 1 lire	4.95c	4.85c	5.45c
Spain	19.3c to 1 peseta	15.33c	15.46c	15.62c
Austria	20.3c to 1 crown	.0014c	.0014c	.0136c
Denmark	26.8c to 1 crown	18.86c	19.23c	21.25c
Norway	26.8c to 1 crown	17.73c	18.20c	18.85c
Sweden	26.8c to 1 crown	26.74c	26.62c	25.95c
Holland	40.2c to 1 florin	39.10c	39.48c	37.95c
Argentina	42.5c to 1 peso	36.60c	37.12c	35.75c
Brazil	32.4c to 1 milreis	10.85c	11.25c	13.81c
India	48.7c to 1 rupee	31.33c	31.50c	28.00c
Japan	49.9c to 1 yen	48.72c	48.50c	47.40c
Canada	100c to 1 dollar	98.31c	97.56c	99.00c

4. Discount Rate of the Bank of England:			
	April 18, 1923	Month Ago	Year Ago
	3%	3%	4%

III. Money and Credit

1. Gold, Currency and Bank Deposits (000,000 omitted):				
	March 1, 1923	Feb. 1, 1923	March 1, 1922	Feb. 1, 1922
Stocks of monetary gold in the United States	\$ 3,961	\$ 3,938	\$ 3,681	
Total supply of currency in the United States	4,611	4,509	5,488	
Total deposits in National Banks	\$17,420	\$16,599	\$15,075	
Deposits in New York City banks	\$ 3,810	\$ 3,970	\$ 3,850	

2. Gold Movement (000 omitted):				
	March—1923	March—1922	March—1922	March—1922
Exports of gold	\$10,392	\$ 963	\$ 46,993	\$ 20,759
Imports of gold	15,951	33,488	209,311	434,104

3. Federal Reserve Ratio:				
	April 11, 1923	Mar. 14, 1923	April 12, 1922	
Ratio of total reserves to deposits and Federal Reserve note liabilities	76.3%	75.4%	77.7%	

4. Interest Rates:				
	Mar., 1923	Feb., 1923	Mar., 1922	
4-6 mos. commercial paper	5.16%	4.94%	5.03%	
60-90 days commercial paper	5.03%	4.62%	4.78%	

5. Discount Rate of Federal Reserve Banks:				
	Apr. 1, 1923	Mar. 1, 1923	Apr. 1, 1922	
Range of rates for the twelve banks on commercial, agricultural and livestock paper	4 1/4%	4 1/4%	4 1/4-5%	

6. Stock and Bond Prices:				
	April 13, 1923	Mar. 9, 1923	April 15, 1922	
20 Industrial stocks	\$101.81	\$104.48	\$90.80	
20 Railroad stocks	86.34	89.19	83.29	
40 Bonds	86.40	87.09	88.13	

7. Business Failures:				
	Apr. 12, 1923	Mar. 8, 1923	Apr. 13, 1922	
Bradstreets	394	406	500	
Duns	362	351	518	

IV. Prices

I. Wholesale Prices of Farm Commodities:				
Quotations at Chicago except as noted.				
	April 24, 1923	Month Ago	Year Ago	
Fat hogs, cwt., average.....	\$ 7.70	\$ 8.30	\$10.30	
Beef steers, good native, cwt., av....	9.10	8.75	8.10	
Fat lambs, cwt., average.....	13.45	13.50	15.25	
Fat sheep, cwt., average.....	7.75	8.00	9.25	
Wool, Ohio delaine unwashed, lb.				
(Boston)57	.575	.47	
Butter, 92 score, lb.....	.4025	.4825	.36	
Cheese, No. 1 twins, lb.....	.20	.2325	.155	
Eggs, fresh firsts, doz.....	.255	.2325	.2425	
Poultry, hens, lb.....	.255	.25	.26	
Wheat, No. 2 hard, bu.....	1.27	1.20	1.415	
Corn, No. 2 mixed, bu.....	.825	.7425	.6075	
Oats, No. 2 white, bu.....	.4675	.455	.40	
Rye, No. 2, bu.....	.865	.8225	1.09	
Barley, bu.....	.665	.675	.53	
Kafr, No. 2 white, cwt. (K. C.)....	1.83	1.68	1.26	
Hay, No. 1 timothy, ton.....	22.00	22.00	26.50	
Flax, No. 1, bu. (Minneapolis)....	3.38	3.19	2.755	
Cotton, middling, lb. (New York)...	.2805	.2935	.1825	
Beans, white, cwt. (f. o. b. Michigan)	7.10	7.40	6.90	
Potatoes, northern whites, cwt.....	1.15	1.275	1.65	
Onions, midwest yellow, cwt.....	4.125	4.25	
Apples, winter varieties, bbl.....	5.50	6.10	8.25	
Hides, No. 1 native, heavy, lb.....	.19	.185	.14	
Sugar, fine granulated, lb. (N. Y.)...	.0985	.09	.0525	



MARKET FLASHES



FOOTE'S MARKET LETTER

By W. W. Foote

Good Agricultural Outlook

LABOR was never before so well employed throughout the United States, and wages are far the highest ever paid, with increasing wages in quite a number of lines of industry. The railroads are doing the greatest business on record, and people are spending more money than ever before, a great deal being expended for meats, flour and other farm products. Meanwhile, marketing of grain and live stock helps farmers to liquidate part of their indebtedness, and there are fewer applications received by country bankers from farmers for loans. Our exports to other countries are on a large scale, especially of provisions, these greatly exceeding such exports made a year ago. The government's forecast of planting, the first ever attempted, indicates an increased acreage of corn, oats, barley, flax, tobacco and cotton. In the southern states planters are reported to be lowering their corn acreage and materially increasing the cotton acreage. The past year was a very unfavorable one for marketing both Irish and sweet potatoes, because of overproduction, and consequently farmers are reported as lowering their acreage for these important vegetables. The spring was unusually late, and this means late seeding of crops in some places lessened planting. Naturally, there is widespread interest shown in the reports of large losses of pigs on account of the late cold, wet spring, but it is probable that these reports were overdrawn in numerous instances and losses will be partly offset by the much increased breeding in most farm districts. The recent advance in prices of lamb in Chicago and other markets was due to a great falling off in the receipts, the Colorado fed lambs having been mostly marketed, while the crop of southern spring lamb furnished by Kentucky and Tennessee will not be ready to market before June, owing to the late spring. Great interest is manifested in the sheep industry in the middle west, and farmers owning plenty of hardy breeding ewes may consider themselves in luck.

Curtailment of Wheat Acreage

Fluctuations in wheat prices during recent weeks were apt to be greater than usual, changing crop reports being the principal factor in the market. Not long ago prices were much higher, but deliveries on May contracts were about the largest on record, causing a temporary large reaction in quotations. At last the weather turned warm, after the long spell of unseasonably cold and wet weather, and crop prospects are improved. However, rains came too late, it is claimed, to make good crops in Nebraska and western Kansas, and a great many tracts of winter wheat fields of the southwest had to be abandoned. In the northwest many farmers have been insisting upon getting higher prices for their wheat, and it is reported that foreigners have been buying wheat in the Canadian northwest, oriental business being especially heavy. Our exports of wheat and flour week after week are running far ahead of last year, while prices are much lower than at that period. The visible wheat supply in the United States is not looked upon as unduly large, although it is 44,521,000 bushels, comparing with 31,281,000 bushels a year ago. Rye, which is in large demand for export, mainly to Germany, is much below the prices paid a year ago, with the visible supply up to 19,459,000 bushels, whereas a year ago it was down to 8,163,000 bushels. Corn and oats exports are much less in volume than a year ago, while supplies in sight are much less than then, the oats visible supply being only 21,932,000 bushels, comparing with 55,837,000 bushels last year. Taking a wide-spread view of general conditions, the outlook for the grain markets appears to be encouraging. Late sales for May delivery were made in Chicago of wheat at \$1.20, comparing with \$1.

MARKET SUMMARY

All grains are easy after declines in prices on opening day of week. Beans unchanged and inactive. Potatoes are easy with receipts fair. Butter and eggs active and firm. Receipts of live poultry exceed demand. Firm tone to dressed calves. Cattle not wanted. Hogs easy and lower. Sheep steady and higher.

(Note: The above summarized information was received AFTER the balance of the market page was set in type. It contains last minute information up to within one-half hour of going to press.—Editor.)

39½ a year ago; corn at 81 cents, comparing with 62 cents a year ago; oats at 44 cents, comparing with 37½ cents a year ago; and rye at 82 cents, comparing with \$1.06½ a year ago.

The Cattle Outlook

While it is difficult to tell what the future will bring forth, from all that can be learned it may be said that better prices are expected within the next two or three months. More feeding was carried on in important cattle feeding districts last winter, and the mild weather greatly favored owners, as less corn than usual was needed. Marketings of cattle for the year so far show heavy increases over corresponding periods in recent years, and liberal supplies are expected so long as the supply holds out. But decidedly fewer stock and feeder cattle have been shipped from the western markets than a year ago, owing to the fact that many farmers thought the prices asked for well-bred stockers and feeders were too high as compared to prices prevailing for finished beef steers. The nearness of the grazing season has started up somewhat larger buying for stock cattle, but as yet shipments to country points have been only moderate in numbers. However, some of the veterans in stock feeding are going to continue in the business the same as ever, and James W. Wadsworth, United States senator from western New York, showed up in the Chicago stock yards recently for the purpose of buying about twenty car loads of thin cattle for feeding. He said farmers in his part of the country were in the habit of grazing a great many cattle for autumn marketing, and they see no reason for abandoning the custom now. Mr. Wadsworth divided his purchases pretty evenly between steers and cows. The cows average from 850 to 950 pounds, and he estimated that they would show average summer gains of about 275 pounds. Recent sales of stockers and feeders in Chicago have been largely at \$7 to \$8.25, a few prime fleshy lots of feeders selling up to \$8.50 to \$9. Beef steers have been bringing \$6.75 to \$7.50 for the cheaper class of light weights up to \$9 to \$10 for the better class of steers carrying good weight, with a few extra fine lots going as high as \$10.25. The bulk of the steers go at \$8 to \$10. Cows and heifers sell mainly at \$5.25 to \$8, prime heifers going as high as \$9 to \$9.25. Calves sell mostly at \$8.50 to \$10 per 100 pounds. Milkers and springers are wanted at \$60 to \$95, prime Holstein cows going highest.

Abundance of Hogs

Farmers have been breeding swine to a remarkably large extent for a year, and the result is vastly larger marketings at packing points this year than for recent years. It happens that the consumption throughout the country of lard, fresh and cured meats has been almost phenomenally large for many months, and this has been an important factor in the hog market, while exports of lard and cured meats have kept on running from week to week far ahead of a year ago in volume. But the marketing of hogs in Chicago and Missouri River markets has been much larger than in other years that stocks of provisions are piling up, and this is a bearish factor that cannot fail to make itself felt in making hog values. Hogs in Chicago market show up well in quality, their recent average weight being 238 pounds, and the highest prices are obtained for prime light bacon hogs. Reactions in prices are to be expected of course from time to time, but the prevailing belief is

that later on values will go lower. The advance in corn prices has caused many stockmen to hurry up shipments of cattle and hogs to market. Last week's Chicago receipts ran far larger than a week earlier, sales ranging at \$6.50 to \$8.30. The best light lots sold a dime higher than the best heavy butchers. Western packing for the summer season, beginning March 24, is reported as 7,464,000 hogs, comparing with 4,696,000 a year ago.

High Prices for Lambs

Most of the Colorado fed lambs have been shipped to market, and as the spring lambs of Kentucky and Tennessee will not be ready for marketing until June because of the cold, wet spring, there has been a real scarcity of fat lambs in the Chicago market lately and the highest prices of the year. The best woolled lambs have sold up to \$15.35 per 100 lbs. but lambs are now mostly clipped before marketing. Heavy clipped lambs are wanted part of the time for export, and foreign buyers are the only active ones for such flocks. Exports of such lambs from Chicago for the year to recent date amount to 7,500 head. During a recent week exporters purchased about 600 shorn lambs which averaged around 105 pounds. The wool market is extremely firm. Meager receipts last week made higher prices, clipped lambs selling at \$10.50 to \$13.15.

WHEAT

Wheat prices show decided declines for the past week and declines were made in the face of unfavorable news which appeared on the market nearly every day of the week. Weather that helped the winter wheat outlook was mainly responsible for the weakness in the market. There was rain over a great deal of the dry country and the crop gained in many places although the rains came too late to do much good in the worst district of the southwest, where abandoned acreage makes a large total. The weather over the spring wheat states improved also, and this is too late to prevent the abandonment of much land and the substitution of other crops for wheat. The seeding of spring wheat is about three weeks late and not more than half finished in some of the important states, giving the crop a very doubtful promise. The unfavorable conditions were all known a week ago when prices were high and the better weather of last week caused much selling for the taking of profits bringing a weak tone. There are many bearish dealers in the market. They believe the pressure of cash wheat will force prices down in the absence of an active foreign demand. The export business improved during the week, but the foreigners took Canadian wheat in nearly all cases and the supply in this country seeking a market is very large. Australia reports an export surplus this year of less than half the previous year's exports.

Prices

Detroit—Cash No. 2 red, \$1.32; No. 2 white, \$1.32; No. 2 mixed, \$1.32.
Chicago—Cash No. 2 red, \$1.25; No. 2 hard, \$1.19½ @ 1.20½.
New York—Cash No. 2 red, \$1.42½; No. 2 hard, \$1.32½.
Prices one year ago—Detroit, Cash No. 2 red, \$1.37; No. 2 white and No. 2 mixed, \$1.35.

CORN

Corn weakened some last week but prices did not decline as much as in wheat because of small receipts and good demand from various industries. Only 971,000 bushels was

received at Chicago last week while 2,397,000 bushels was shipped out. This naturally caused a decrease in stocks and had a steadying effect on the market. Corn for September delivery is weak at present as weather is generally favorable for spring work and much plowing has been done and indications are that this year's acreage will show a fair increase over last year. Export trade has been fair.

Prices

Detroit—Cash No. 2 yellow, 86c; No. 3, 85c; No. 4, 83c.
Chicago—Cash No. 2 mixed, 79½ @ 80½c; No. 2 yellow, 80½ @ 81c.
New York—Cash No. 2 yellow, and No. 2 white, 98½c; No. 2 mixed, 98c.
Prices one year ago—Detroit, No. 2 yellow, 67c; No. 3, 65½c; No. 4, 64c.

OATS

The oat market is somewhat improved in tone because of a good volume of business which the market has enjoyed the past week. Country offerings to arrive are practically nil.

Prices

Detroit—Cash No. 2 white, 50½c; No. 3, 49c; No. 4, 47½c.
Chicago—No. 2 white, 45½ @ 46½c; No. 3, 45 @ 46c.
New York—Cash No. 2 white, 55½ @ 56c.
Prices one year ago—Detroit, Cash No. 2 white, 45c; No. 3, 42c; No. 4, 40c.

RYE

Rye seems to be in good demand and prices are holding steady at many points. The market is quiet at Detroit.

Prices

Detroit—Cash No. 2, 81½c.
Chicago—Cash No. 2, 78½ @ 79½c.
Prices one year ago—Detroit, Cash No. 2, \$1.08.

BEANS

There has been a small decline in the price of beans during the last week but it is believed that this is only temporary and that the price will advance in the near future. There are no more beans in Michigan than are needed and orderly marketing will bring the price up. There is a campaign on to increase bean acreage throughout the country, according to reports, and it is intended to increase consumption by educating the consumer to make beans a more important part of his food.

Prices

Detroit—C. H. P., \$6.80 per cwt.
Chicago—C. H. P., \$7.25 @ 7.75 per cwt.
Prices one year ago today—Detroit, C. H. P., \$7.20 per cwt.

POTATOES

Old potatoes reached the highest price level of the season during the fore part of the past two weeks but the price did not hold owing to large receipts of new potatoes. Shipments have been light. Floods have held up shipping from Maine and the growers of Michigan are inclined to wait for higher prices. Smallness of receipts has not been felt to any extent as yet as most markets had a good supply on hand. The tone of the Detroit market is easier.

Prices

Detroit—Michigan, \$1.43 @ 1.50 per cwt.
Chicago—Wisconsin and Round whites, \$1.10 per cwt.
Prices one year ago—Detroit, Michigan, \$2.06 @ 2.17 per cwt.

HAY

The hay markets generally have been steady especially on the top grades. Good qualities have continued firm at most markets because of light receipts, but poorer sorts are abundant and are generally dull and lower. Country shipments are diminishing on account of spring work and although the demand is of moderate volume, markets are steady at the close. Clover and mixtures are dull except in the west.

Prices

Detroit—No. 1 timothy, \$17.50 @ 18; standard \$16.50 @ 17; light mixed, \$16.50 @ 17; No. 2 timothy, \$15.

50@16.50; No. 1 clover mixed, \$14@15; No. 1 clover, \$13@14.
Chicago—No. 1 timothy, \$21@22; light mixed, \$19@20; No. 2 timothy, \$18@20; No. 1 clover, \$15@16; No. 2 clover, \$13@14.
New York—No. 1 timothy, \$27; standard, \$13@16; No. 2 timothy, \$23@26; No. 1 clover mixed, \$26@27.

Prices one year ago—Detroit, standard timothy, \$21@22; No. 2 timothy, \$20@21; No. 1 light mixed, \$21@22; No. 1 clover, \$16@17.
Alfalfa—Detroit, \$13@17; Chicago, \$16@23.

WOOL MARKETS

Midwestern wool trade remains on about the levels recently established, with a good firm tone. Prices are about unchanged from the previous week, but reports of contracting at higher levels in the west lend a feeling of strength to the local situation.

Foreign markets are closing their sales at firm to higher levels, and the position of holders seems, in the eyes of most of the trade, to be a strong one.

Quotations on midwestern or so-called "native" wool in large lots—such prices as are obtained by the farmers' pools—are as follows (f. o. b. Chicago): Fine and medium staple, 56@57c; 1/2 blood staple, 54@55c; 1/2 blood clothing, 51@52c.

BUSY PLOWING FOR CORN AND SEEDING OATS

Crop report for southern part of Jackson county: Weather very dry. Rain needed. Farmers very busy plowing for corn and seeding oats. Clover seeding in bad shape. Help very scarce. Many farmers leaving farms. If the bars of immigration are not let down the farmers will be without labor to run the farms, as all the farm help has left the country to work in the cities, and wages are so high that the farmers can not pay them, and make expenses.—G. S.



Week of May 13

THE early part of the week of May 13 will be stormy and the latter part mostly fair in Michigan. Temperatures will average normal or above during first part and below last part.

During first few days winds will be strong and rainfall quite heavy in sections but during middle part of week skies will clear, air become drier and temperatures fall to or almost to frost levels. At end of week possible frost will endanger early cherries, early strawberries, grape and garden truck.

Pastures and winter wheat will not have rapid growth at this time. Germination of rye and oats will be slow. Some early corn and potatoes can be planted at end of week and plowing for beans and late potatoes can be started.

Week of May 20

Average temperatures for this week will range below normal. From the beginning of the week until the middle part they will be rising but from then until the following Sunday they will be falling.

Generally fair weather is to be expected in Michigan during early part of week but during middle days, especially Wednesday, Thursday and Friday, light to heavy showers of rain are to be expected with electrical storms in scattered sections. The week ends with fair weather.

Season Backward

The next few weeks will prove backward to the average Michigan farmer and there will be much delay in planting and other outdoor operations. Plant on well drained land. To insure proper germination plant just prior to warm periods or as late in the season as practical.

LEGISLATURE CLOSES SESSION IN WAR-LIKE ARRAY

(Continued from Page 3)

ceases among bees, by the establishment of sanitary regulations and quarantine rules was passed by the Senate 30 to 0. The bill is aimed

chiefly to prevent the spread of foul brood among Michigan bees.

Defeat of the Smith automobile weight tax bill by a vote of 41 yeas to 56 nays marked to climax of the closing hours of the 52nd session of the Michigan state legislature. The final vote was preceded by one of the most intense and dramatic debates in the history of Michigan's law-making bodies.

Acting under a "call of the House," which prevented any members from leaving the chamber, the fight was waged back and forth for two hours while the members and spectators who packed the galleries and side lines to capacity went without their dinner until 2:30, when the final roll call was taken.

Debate on this bill was tinged more or less with the intense bitterness which was developed among the representatives by the Governor's gas veto. Rep. Chas. Evans, leader of the "bitter-enders" among the gas tax forces voiced this sentiment when he said "This has ceased to be a question of a gas tax or a weight tax. It is now a question of whether or not representative government shall prevail in Michigan." He said that the eyes of the people from every section of the state were riveted on the actions of the members of the House and declared that the methods used to secure the passage of the weight tax bill endangered the integrity of the state. He voiced the sentiment that when 80 representatives and 19 senators should vote for a measure which they felt that their constituents demanded, it was hardly fitting for the Governor to exercise his veto power.

Rep. Evans quoted Sen. Sligh's remark that the weight tax bill was "conceived in sin and born in iniquity" and declared that the real purpose of the bill was not to raise more revenue but to place the state highway department under the control of the State Administrative Board. Rep. John Espie of Clinton county voiced similar sentiments when he said that to pass this measure would make the state highway commissioner a mere office boy for the administrative board and would assist to build up a more powerful political machine in Michigan.

Voicing additional protests against the passage of the bill, Rep. Elijah Howarth of Royal Oak pointed out the big loss which would be sustained by the counties under the system of distributing the highway funds proposed by the weight tax, which returns only one third of the receipts to the counties instead of one half as at present. Other speakers who spoke in opposition to the final passage of the bill were Rep. David Butler of Lapeer county and Rep. Dykstra of Grand Rapids.

After calling the speaker pro tem to preside, Speaker Geo. Welsh of Grand Rapids took the floor in support of the bill. He vindicated his own stand in the matter and urged the members to vote in accordance with their convictions. He declared that if representative government were in danger in Michigan it was not because of our able Governor but because the members feared to vote as they saw fit. Finally some one moved the previous question and further debate was shut off and the representatives lined up as follows:

YEAS: Barnard, Bartlett, Braun, Gus. A., Bristow, Burns, Carter, Corliss, Culver, Dacey, Farrer, Ferris, Frees, Green, Hewlett, Ray L., Howell, Jewell, Johnson, Jolly, Ladd, Lee, Little, Lennon, McKinnon, Manwaring, Miles, O'Brien, Ormsbee, Palmer, Raucholz, Read, Richardson, Sargent, Smith, Stevenson, Titus, Wardell, Watson, Geo. C., Watson, Joseph E., Wood, Woodruff, Welsh—41.

NAYS: Baxter, Bradley, Brake, Bramer, Brown, Geo., Bryan, Butler, Byrum, Curtis, Dawe, Deshano, Dexter, Dykstra, Emerson, Espie, Evans, Fuller, Gillett, Haight, Holland, Hosking, Howarth, Hubbard, Hulett, Orvy, Jones, Kirby, Kooyers, Lewis, Chas. F., Lewis, Rolfe L., Long, Look, MacDonald, McEachron, Meggison, Miller, Ming, Morrison, Nevins, O'Beirne, O'Connell, Odell, Osborn, Pitkin, Preston, Rasmussen, Richards, Robertson, Rowe, Roxburgh, Sanson, Strauch, Thomas, Town, Wade, Warner, Wells—56.

It was a foregone conclusion that if the House should kill this bill that the Senate would kill the Byrum income tax and the Meggison primary school fund bill.



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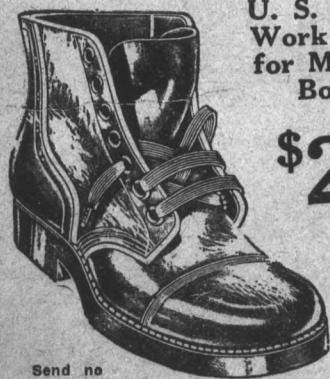
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