

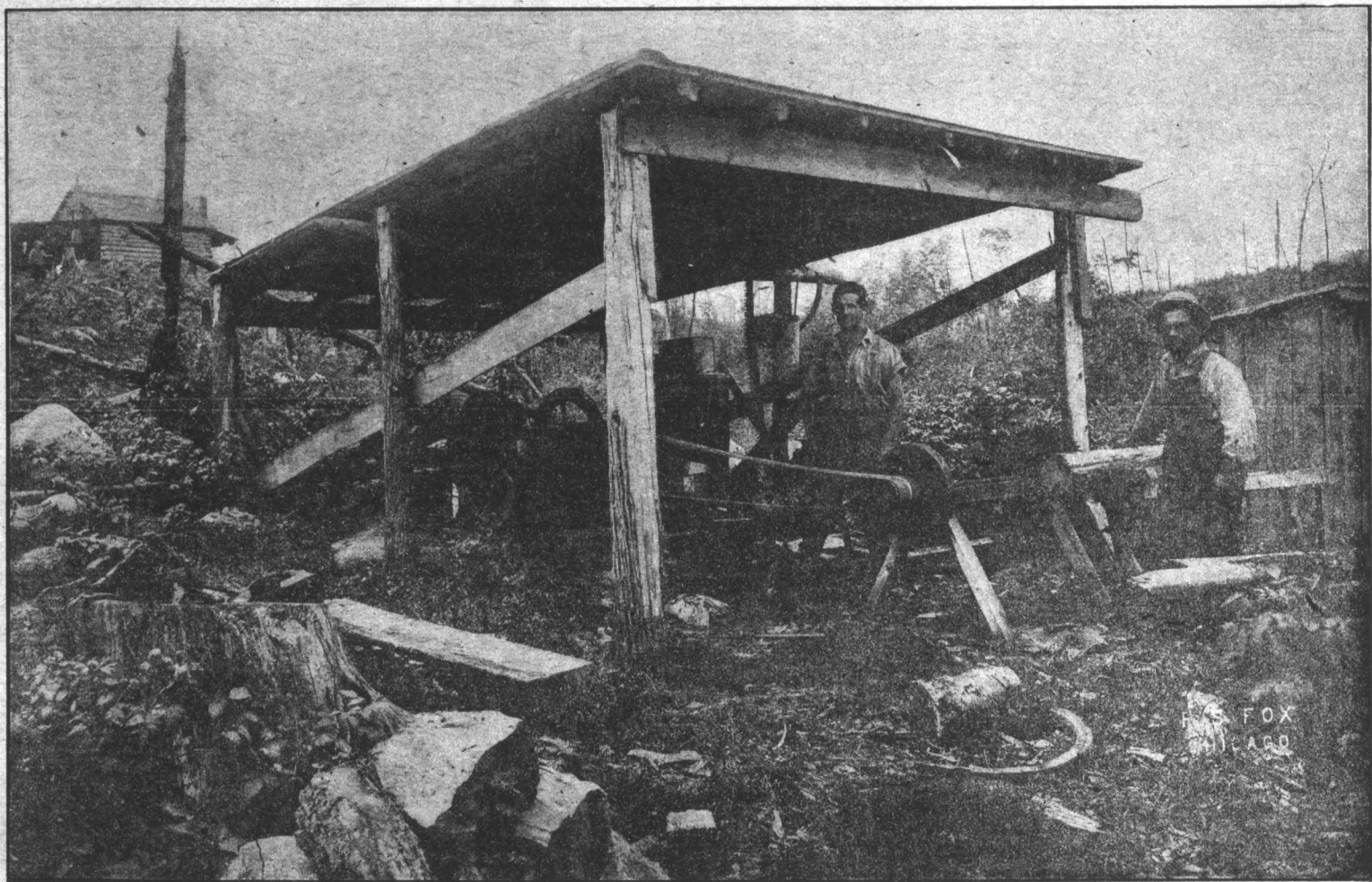
MICHIGAN FARMER

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WHEN a fellow looks back he realizes that Bucking Versus Buzzing Wood

times do change. Take it just a few years ago, the only way we thought we could saw wood was with the old buck-saw, or by manipulating our end of the cross-cut. But now, we put the best hired man on the place—the gas engine—on the job and cut cords in the time it used to take to saw pieces.

There is no doubt but what the old ways of doing things contained certain personal associations which are missing now. Take, for instance, there must have been a feeling of regard in wearing clothes made by mother from cloth she spun on the loom. There is that personal relationship to the garment which does not exist when we go down to Sam Blumenthal's and buy a suit for \$29.50.

So, in the sawing of wood, there is the spirit of contest with the fellow at the other end of the cross-cut and the satisfaction of seeing your strength and his laying to waste a giant of the forest. Then, too, there is a lot of pleasure in the after effects of a tussle with the saw when you

¶ The Buzz-saw gives you the greater part of your time—which the Buck-saw formerly used—to buzz around with your fellow men, which is an education.

sit before a big stack of flannel cakes and make it disappear. And last, but not least, what beats the enjoyment of a well-earned sleep?

The personal element of the old ways can not be disregarded, but it would seem folly to think of mother making our clothes now. Times have changed and so have our duties and pleasures. In the transition from the personal age to that of metal, we have changed our thoughts, too, or rather broadened them. Individual and family thought should exist, but more for the purpose of helping the individual and the family to serve neighborhood and nation better. Really, our neighborhoods have broad-

ened considerably in the last generation, so that they now in-

clude multitudes instead of a few individuals. The might of metal has been greatly responsible for this change, for metal put to work has done a great share of our work for us and has given us the time to consider bigger and broader things.

So, let's put up the old buck-saw and give the cross-cut a rest while the engine "put-put-puts" away, giving the buzz-saw the pep to quickly turn logs into cords. By this, it is not meant that the old "arm-strong" sawdust makers should be relegated to the junk heap but, on the contrary, they should be given good care for they will come handy for small jobs when the getting ready for the buzz-saw and engine equipment is inconvenient and would not save time.

The saving of time is a modern tendency which is essential to human progress. It therefore, seems that there is a social reason for modern conveniences and that we help general progress as well as our own when we use efficient labor-savers at every opportunity.



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DETROIT, NOVEMBER 5, 1921

CURRENT COMMENT

The Railroad Problem

WHILE the threatened railroad strike has been averted, the vexed railroad problem is not settled. The country still has a hard task ahead to accomplish its settlement. And to the end that it may be settled equitably and justly for all concerned the public should have all the facts relating to the problem. This can scarcely be properly accomplished through the medium of existing agencies. A mass of data prepared by the Association of Railway Executives is available, and is probably in the main dependable, but its fair interpretation by the press is a difficult matter and would scarcely be accepted by the public as conclusive evidence upon which to base an intelligent opinion as to the best solution of the problem. On the other hand, the claims of the workmen as voiced through their organizations will not receive general credence, regardless of their merits, unless substantiated by an unbiased investigation.

The transportation problem is an economic one. The public needs and should have dependable economic information regarding it. The government would contribute to its wisest solution by employing trained economists to prepare understandable statements setting forth the economic status of railroad operators, workers, food producers and the consuming public in relation to this problem. Any final settlement of the problem must satisfy an intelligent public opinion, and to this end it is essential that the public should have at hand dependable facts upon which to base a sound opinion.

The H. C. L. in Huckleberries

THE other day Milton Carmichael, the secretary of the Wayne County Farm Bureau, who has been making a study of the Detroit market, told an interesting story about huckleberries. In his investigations he found that the pickers in the northern part of the state were getting two dollars per case, less forty cents for the case, and at no time did huckleberries bring less than eight dollars on the Detroit market. In other words, the pickers were getting \$1.60 net, while consumers were paying five times that amount at the other end.

This is but another version of the old story of the wide spread between the producer's and the consumer's prices. It parallels that of the farmer sell-

ing a hog to buy a ham and the story of the hide and shoe. Such occurrences do an injustice to both producer and consumer and often cause the waste of large quantities of human food because the producer can not afford to handle it without profit. But they are growing less as the evils which cause them are gradually being eliminated.

Sane and sensible cooperation seems by far the most effective way to correct these evils. It should therefore be strongly supported by farmers. The indications are that the farmers are supporting it, as after a generation of talk, cooperation is taking hold and, like the boy, is growing like a weed. But also, like the boy, it may make some youthful errors. In the correction of these errors, let's use sensible corrective methods rather than trying to "lam the life out of it" which seems the human impulse to do when the young make mistakes. Cooperation is at a critical stage of its development—let's treat it right.

The Grain Growers' Platform

THE notable feature of an informal talk made by President C. H. Gustafson, of U. S. Grain Growers, Inc., to a group of publishers of the leading agricultural papers of the country at Chicago last week, was the statement that his organization is seeking no special privileges and no special legislation. All its officials are asking is the confidence and patience of its members while the big task of organization is being completed. Then the farmers who are directing this enterprise are willing to meet the economic test of competition with existing marketing agencies and stand or fall on the result.

This is the kind of spirit which should prevail in every undertaking of this kind, since in the end this is the economic test to which every business enterprise must be subjected and depend for its permanence upon its economic supremacy. The organization for which Mr. Gustafson spoke is the largest cooperative marketing enterprise ever undertaken. It has already made contracts with more than 20,000 farmers in the principal grain producing states who have an estimated annual marketable surplus of 30,000,000 bushels of grain. Its membership is growing rapidly and its officers are confident of reaching a membership representing an annual marketable surplus of 100,000,000 bushels of grain, which, in their judgment will put the organization in a position to compete successfully with existing grain marketing agencies with a resultant saving to their grain producing membership.

The spirit in which Mr. Gustafson and his associates are working out the big task with which they have been charged is worthy of general commendation and emulation. Farmers' cooperative organizations are no exception to the general business rule that they must show advantageous economic or service benefits to their membership if they are to endure, and an early realization of this fact on the part of its promoters promises well for the final success of any cooperative business enterprise.

Class vs. Public Interest

THAT the threatened railroad strike was averted is a matter for general congratulation, not only because of the certain hardship and suffering which would have been the inevitable result of such a catastrophe has been avoided, but as well because public interest has again triumphed over class interest in our great democracy. Great credit is due to the leadership of government officials whose patriotic course contributed to the withdrawal

of the strike order, and to the more conservative leaders of the brotherhoods whose efforts contributed to the same end. The immediate hardship has been averted and, we believe, substantial progress has been made toward establishing the supremacy of public interest in the adjustment of industrial disputes of this kind.

While the ostensible reason for calling off the strike given by some of the labor leaders was in substance that "we cannot fight the government," the lack of public sympathy in their move was doubtless an even greater contributing factor to the result than the vigorous steps which were being taken by government officials to combat the walkout. It is a foundation principle of democracy that the interest of the whole people is greater than that of any faction or class, and in its final analysis the ultimate success of democracy depends upon the maintenance of that principle.

And this principle upon which our democracy was built has been pretty well maintained in our country since it was established nearly a century and a half ago. True, special privilege has shown its head and had its brief inning but has been largely, if not entirely subdued in the public interest. And in this day of class organization the opposite extreme of large groups of citizens who seek to right their real or fancied wrongs, sometimes with scant regard for the public interest, our democracy is being subjected to a new test, which it is destined to meet successfully, not only to the great benefit of the American people but to the people of the whole world who survive the present great political and industrial disorganization and those of unborn generations who will come after them.

This must be true because our people are largely made up of intelligent and patriotic citizens, who want to be fair in their attitude. No matter in which of the great classes of our citizens his lot may be cast, whether he is a workman, employer or farmer, the average man is patriotic in his attitude and is inclined to seek no more than that to which he believes himself to be entitled. There are, of course, exceptions to this general rule, but "by and large" it undoubtedly holds true. The difficulty of adjustment lies in the average man's limited point of view. Here the powerful force of a sound public opinion must come in to save the day, operating through the government as it ever does in the final analysis to settle the point at issue.

Class organization is a good thing. When rightly directed it is a powerful force for the protection of individual and otherwise helpless units of humanity. But this power for good in any class organization is subject to abuses which always creep in, and which must be remedied from outside opposition if at all. Here the public interest comes in and the case must be arbitrated by the people in other classes whose interests are affected. Fortunately no one industrial class of our citizens is, or is likely to be, predominant in this country. Therein lies the safety of our democracy and the justice of public judgment in times of industrial stress.

News of the Week

Wednesday, October 26.

A BULL got out of a box car on a siding near the Sullivan Packing Company's plant in Detroit, and caused considerable commotion while parading up Grand Boulevard.—The soft drink manufacturers of Detroit do over four million dollars worth of business a year.—Chancellor Wirth says Germany is "pretty near the end of her rope."—Ex-Emperor Charles, who failed in his endeavor to regain the throne of Hungary, and his wife, have been imprisoned in the royal castle in Buda Pest.—Secretary of the Treasury Mellon lifted the lid on the sale and manufacture of beer for medicinal pur-

poses.—President Harding, in a speech at Birmingham, Alabama, gives decided views on the race question.—Henry Ford favors both the St. Lawrence river and the New York barge canals.

Thursday, October 27.

A SEAT in the New York Stock Exchange sold for \$80,000, which is \$10,000 less than the last one sold for.—"Bat" Masterson, famous gun fighter and friend of Roosevelt, dies in New York.—A severe storm off of Tampa Bay does considerable property damage to southern Florida.—The mother of Glenn Burr, nine years old, sees him dragged to death by a frightened cow as he was taking it to pasture. He had the rope tied around his waist.—A biological survey of the U. S. Department of Agriculture says there is more game available for hunters this season than for the past five years.—The U. S. Commerce Department says nearly a half billion dollars' worth of farm products are sold abroad annually. Because of this the farmers are slowly but surely bringing the nation out of a period of depression.

Friday, October 28.

OVER forty-five per cent of the population of the United States is in the rural sections, according to the United States Department of Commerce.—The Detroit Board of Commerce is inaugurating the "buy at home" campaign.—Frank Vanderlip, the famous financier, plans a billion dollar United States-European bank to facilitate foreign business.—Frank F. Rogers, state highway commissioner, says Michigan has one thousand miles of new highways which were made this year.—Fifty fat women are in a prize reducing contest under the auspices of the New York Health Department.—Albion College inaugurates John Wesley Laird as president to succeed Dr. Samuel H. Dickey. Dr. Laird is Albion's youngest president, being thirty-two years old.

Saturday, October 29.

THE spray manufacturing plant of the James A. Blanchard Company, at St. Joseph, Michigan, was destroyed by fire.—The opening of the arms conference will be postponed from Armistice Day, November 11, to November 12.—The Spanish army has suffered severe losses in engagements on the Moroccan battle front.—Federal agents seize 1,147 quarts of bonded whiskey found buried beneath 900 bushels of turnips in a box car in Amesbury, Mass.—Profits of the Panama Canal for the fiscal year 1921, totaled \$2,712,000.—The Prince of Wales, en route to India and Japan, will play the snare drum in the ship's jazz band.—The Philadelphia police department is to have a "gas battalion" to quell disorderly mobs.—Insurance mortality tables show that the length of the average life is increasing. It is now seventy-five years instead of sixty-eight.

Sunday, October 30.

A NEW rival for the United States Steel Corporation is hinted in a merger of six leading independent steel companies.—Scores of lives were in danger when train wreckers ditched a fast Grand Trunk train near Lapeer en route to Chicago.—Public utility commission makes a twenty-five per cent cut on sugar beet freight rates in this state.—The railway strike is called off because public opinion was against it.—Marshal Ferdinand Foch, commander of the allied armies during the World War, is given a great ovation upon his arrival in Washington.—The ten-months-old daughter of Mr. and Mrs. Willard Lynn, of Kalamazoo, is smothered to death by bedclothes.

Monday, October 31.

THE United States Labor Board forbids railroad union labor from striking without the board's permission.—Judge A. V. Anderson, of the United States Federal Court, orders union officials from the West Virginia coal mine regions because of their efforts to unionize labor there.—Cuban "Reds" threaten the life of Major-General E. B. Crowder, of the United States, in Havana.—Great Britain, France and Italy issued an ultimatum to Hungary demanding that Ex-Emperor Charles be handed over to them.—A Chattanooga, Tenn., furniture dealer is sued for \$25,000 for breach of promise by his divorced wife for his failure to remarry her.—Thirteen per cent of the workers in New York City are unemployed.

Tuesday, November 1.

HENRY W. GATES, a tramp, confesses the wrecking of the Grand Trunk passenger train at Lapeer, also the Michigan Central train wrecked in Dearborn.—The schooner Rosabelle foundered in Lake Michigan near Milwaukee. No trace has been found of its crew of ten, who were members of the House of David at Benton Harbor.

A Patched-Up Potato Crop

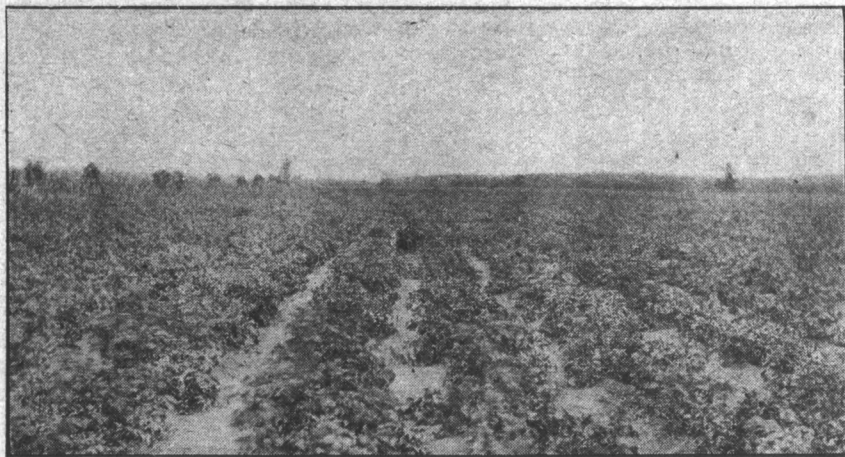
By I. R. Waterbury

IN the Michigan Farmer of August 27, I told the discouraging story of my failure to get a good stand of potatoes, as was common in many localities in Michigan this year, and my subsequent effort to patch up the stand by replanting in July. At that time I promised Michigan Farmer readers to have another photograph taken at the same spot in the field and report the result at digging time.

The accompanying cut is from such a photograph, taken in late September. It shows that by planting in between the hills which came from the first planting I got a fairly good stand, and while I didn't get a big crop, I am well satisfied with the results of the comparatively small investment made in the experiment. The yield was right around one hundred bushels per acre, and while the tubers run rather small in size they are mostly merchantable and of very good quality. While this was not a very satisfactory crop, I am satisfied that it is at least seventy-five and probably one hundred per cent better than it would have been if no effort had been made to patch it up. At present prices it will pay cost of production and a little profit instead of a considerable loss, which would have been certain without patching up the stand.

Practical Lessons from this Experiment.

This, of course, is a source of satisfaction, even if the crop was not what it should have been, but the practical demonstration regarding soil fertility as related to the potato crop gained from this experience is a source of much greater satisfaction. A portion of the field on which this crop was grown was in rather poor physical condition, while the balance of the field was in good condition. This was due to the fact that during the period of excessively high production costs most of us farmers have been obliged to be guided by expediency, often at



How the Patched-up Potato Patch Looked in September.

the expense of good management in handling our farms. The "war history" of this field is as follows:

In 1914 the field, then smaller than at present, was planted to potatoes following alfalfa and an excellent crop secured. In 1915 it was seeded to a mixture of June clover and alfalfa and a very little timothy in a light sowing of oats and an excellent stand secured. In 1916 the field cut the heaviest hay crop I ever harvested. In the first crop the clover predominated. The yield was over four big loads per acre. With the clover off the alfalfa got under way slowly and later the field cut another crop of mixed clover and alfalfa of a little over one big load per acre. The exceedingly cold winter which followed killed out most of the alfalfa, except a strip along the west side of about one-quarter of the field where a fair stand remained.

Here war conditions commenced to interfere with the management of this field. It should have been started in a new rotation at once. But a shortage of help made it impossible to get this

field plowed at a seasonable time the next spring. As the season progressed I noted that a very thin stand of timothy remained over the entire field in addition to a fair sprinkling of alfalfa along one side. The timothy plants stood about a foot apart and had stoolled out enormously and were making a very vigorous growth so I concluded to let it go and cut the hay. That year, 1917, the field cut over two big loads of very coarse timothy hay per acre. In 1918 it was planted to corn and a fair crop secured. That fall the field was sown to rye and given a light top-dressing of manure during the winter. The following spring it was seeded to alfalfa in the rye. The rye made a very heavy growth of straw and lodged badly, which, together with unfavorable moisture conditions, caused the seeding to fail. The "down" condition of the grain left considerable rye on the ground which later rains brought on to make a heavy volunteer stand. Here, again, war conditions interfered with good management and this volunteer stand was allowed to

mature a very fair rye crop, which was harvested in 1920 without any cost of production except harvesting and threshing. Last spring the field was planted to potatoes to resume its place in the regular rotation. It will be seen from this that the field had not been well handled and could not be expected to produce a very good crop.

In the meantime the field had been enlarged by moving one fence to include in it some two acres of an adjoining field which was in alfalfa, which was plowed with the balance of the field for potatoes. Adjoining this strip and on the thinnest part of the old field I applied a liberal coating of muck last fall and supplemented it with a light coat of stable manure. On this strip the potatoes were fully as good as on the alfalfa sod, where the yield was fully one hundred and fifty bushels per acre. On the west side of the field where the alfalfa had stuck with the timothy hay the yield was around one hundred and twenty bushels. In the center of the field where the land was depleted of its humus content to a greater extent the yield was below one hundred bushels, and the late planting was very noticeably poorer than the first planting.

This experience shows very clearly the importance of a legume in the crop rotation closely preceding potatoes. It also shows the superiority of alfalfa for this purpose as every other experience with it on my farm has shown. It shows, as well, the possibilities of the use of muck in combination with stable manure as a soil conditioner. And last, but not least, it shows that the potato plant is a lazy feeder, requiring an abundance of available fertility within easy reach for best results. No crop, and certainly not potatoes, could be expected to do its best following timothy hay, corn and two crops of rye, which crops are vigorous feeders and glean closely of the fertility in the furrow slice.

Getting Ready for the Big Show

Suggestions on Selecting Grains for the International

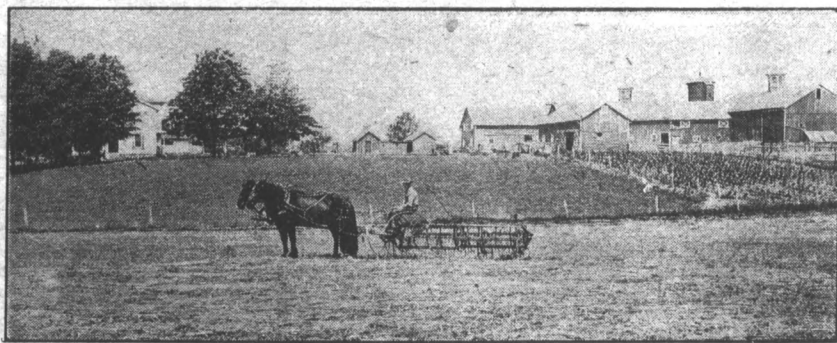
By A. L. Bibbins

IS Michigan a corn state? "You betcha she is. You can see some mighty fine corn in most every section of the state." That is the question I asked and the answer received from one of our good up-and-going farmers.

We never had a better opportunity to show America just how good we are in the corn raising business. With the year's high quality corn crop Michigan farmers should go down to the International Grain Show and capture a good big slice of the \$10,000 premiums offered by the Chicago Board of Trade.

We need not depend entirely on our seed corn growers to make our showing, for the every-day corn-producing Michigan farmer has the opportunity to enter really high-class corn at this show. We have the crop, all that is needed is time and care in making selections.

It will be remembered that Michigan is divided into two sections by the regional map adopted by the rules committee of the International Grain and Hay Show. That portion of the state lying south of a line extended from the vicinity of Thompsonville eastward to Saginaw and then northward up around the Thumb territory is placed in Region Two. This places Huron county and the entire Thumb territory in this region. The portion of the state lying north of this roughly described line is in Region One and



Michigan Hay and Grain Have Won in International Contests.

includes Benzie, Grand Traverse, Kalkaska and all territory to the north.

Corn which would win high honors in one section might be thrown out in the other section on the point of adaptability. This, however, is only one of the problems to be considered in making selections. For a guidance to Michigan farmers the writer offers the following suggestions:

Size and Appearance of Ears to Select.

With the possible exception of southeastern Michigan it will be better to select sixteen-rowed ears as representative corn produced in Region No. 2, while fourteen-rowed ears will on the whole, be better type of selec-

tion for most of Region No. 1. In no case should one select ears carrying more than eighteen rows or the sample will not be seriously considered by the judges because of the adaptation point.

There have been instances in the past when rough and deeply indented ears have been selected; however, we should stay away from this type. Corn belt exhibitors in the past have greatly favored the rough hacky ears but times are changing and we find that they are coming to believe more in the merits of the smoother type.

Rough ears do not belong in a Michigan exhibit and the International judges are quite likely to score against

such a type. It is highly advisable that sixteen-rowed ears carrying kernels with smooth or shallow indentations be selected. This is especially true in Region No. 1 where an earlier type of corn must be grown.

Ten inches is the limit in length for Michigan corn. Growers located in Region No. 2 would do well to select ears about eight and a half to nine inches in length, while those located in Region No. 1 should hold their length to about seven inches. If longer ears than these be selected the judges are more than likely to consider them too long to mature in our normal growing season.

Cylindrical ears are always liked by judges; however, the corn committee of last year's show looked favorably upon the slightly tapering type of ear. Experimental work of the last few years has demonstrated that slightly tapering ears yielded about a bushel and a half better than the cylindrical ears. It is wise to discard the badly tapering ears and to hold to a slightly tapering or cylindrical type.

The rows should be straight and carried well out over the tips. The butts naturally should be well rounded and not coarse or humpy.

Emphasis should be laid upon uniformity. Do not allow two or three off-type ears to throw out your sample. (Continued on page 426).

LATE AGRICULTURAL NEWS

BURN RUBBISH HEAPS NOW.

DO your insect killing early," would be a good motto for Michigan farmers this fall. And every farm should have its own little clean-up day.

Burning of rubbish heaps will mean great saving for orchardists and other growers in the state, according to R. H. Petit, professor of entomology at M. A. C., because enormous numbers of harmful insects find protection under fallen leaves and other waste decaying matter during the winter and their destruction now will prevent them from inflicting damage in the spring.

"One insect killed now will mean thousands less next summer. Leaves, especially from broad leaf trees such as oaks and maples, are the worst rubbish for harboring the pests. Winter examination has shown shavings and straw to be of less importance."

Among the important insects which may be controlled in this way are chinch-bugs, grape leaf-hoppers, potato leaf-hoppers, strawberry weevils, black stink bugs of squash, plum curculio and the tarnished plant bug.

SALES TAX GETS SUPPORT.

WHILE the Fordney-Penrose compromise tax measure will undoubtedly reach the White House after some trimming in conference, the sales tax proposition is much in the public eye at present. It is more than likely that either the Smoot manufacturers' three per cent sales tax or a one-half of one per cent general turnover sales tax will be brought up later, in connection with a soldiers' home bonus bill or other proposed measure calling for large appropriations. Notwithstanding the opposition of the farm organizations to the sales tax, powerful influences are at work to get it incorporated into the federal tax system. It is claimed to be the easiest method of collecting taxes and on the other hand, like all indirect taxation, it presents many possibilities for profitable expenditures.

FOR THE FUNDING OF RAILROAD DEBTS.

THE bill for funding the \$50,000,000 of railroad debts was ordered favorably reported by the House Interstate Commerce committee. One amendment bars claims of roads against the government on account of inefficiency of labor during government control. Another permits the marketing of railroad securities now in the hands of the railroad administration through private channels, in addition to purchases by the War Finance Corporation.

GRANGE AGAINST PROFIT GUARANTEES.

MR. T. C. ATKESON, Washington representative of the National Grange, declared that it was a matter of precedent in the National Grange that it is uniformly opposed to a government guaranty of dividends or profits to any private enterprise. Dr. Atkeson said that when the original bill was before the committee, he then told the members that he did not think that the Esch-Cummins bill was a perfect piece of legislation but that it was probably the very best that could be prepared and passed at the time it was enacted, and that changes should be made whenever experience demonstrated the necessity. He believed that experience has now demonstrated the need for the change as indicated by the hearing. But he was willing to

depend on the wisdom of the committee and of congress to make such changes as may be necessary to meet the new conditions that have developed since the enactment of the law.

WANT STATE RIGHTS RESTORED.

SPEAKERS for state railway commissioners made their argument chiefly in favor of state rights in intrastate rate making. John E. Benton, solicitor of the National Association of Railway and Utilities Commissioners, urged the enactment of the Capper bill to restore the authority of the state commissions to fix rates within state borders, and to repeal the six per cent



guaranty to carriers. Mr. Benton asserted that the raising of rates over three cents per mile has had the effect of drying up passenger traffic, and that the recent rate advances had been hurtful instead of helpful to the railroads.

ANTI-FILLED MILK BILL MEETS OPPOSITION.

THE Voigt anti-filled milk bill is meeting with vigorous opposition in congress, with a strong lobby established in Washington by the manufacturers to defeat it. The Voigt bill prohibits all compounds of evaporated skim-milk and vegetable fats from being manufactured and sold in the United States.

The farm and dairy organizations have given their support to the Voigt bill, but there are some dairy leaders who are beginning to feel that they are "backing the wrong horse." The Voigt bill is a good one if it could be enacted into law, but the chances of its passing are very remote, while the Fordney bill now before the ways and means committee, which seeks to prohibit the manufacture and sale of filled milk by putting a tax of three and a half cents a can upon the commodity and provides high license fees for the manufacturers and retailers who handle it, is in a fair way to become a law if backed by the dairy interests. Both the filled cheese and oleomargarine problems were solved by means of the tax and license methods.

AIR MAIL SERVICE REPORT.

THE report of performance of the Air Mail Service from July 1 to September 30, 1921, made public by the post office department, shows a percentage of performance of ninety-eight per cent, number of miles flown 391,018; number of letters carried 10,014,230. During the quarter there were no fatalities or injury to employees on regular mail trips. The cost per mile of operation during the period was seventy-one and one-third cents per mile. During the same quarter of 1920 it was eighty-seven cents per mile.

DENIES THAT BORER CAN WIPE OUT CORN.

IT will be a long fight and a hard one to defend the corn crop of America against the European corn borer, but no introduced insect pest has ever destroyed any important ag-

ricultural industry in America," says W. R. Walton, entomologist in charge of insect investigations for the United States.

Broken Tassels Are First Sign.

The borer, Mr. Walton says, may be long present before it is discovered. At first it attacks only the tassel and upper portions of the stalk, doing but slight damage. Becoming numerous, it works downward, boring first into the ears and later into the rootstalks.

In corn fields where they have been present for ten years, borers occasion direct loss of about 2.5 per cent of all kernels on all ears, and by boring into the plant's digestive system, they further decrease the yield and quality

the Federal Reserve Board was then called upon to decide whether the draft should be classed as agricultural paper eligible for rediscount at Federal Reserve banks with a maturity up to six months, or should be classed as commercial paper eligible for rediscount only when its maturity date is not in excess of ninety days. The board ruled that the drafts should be classed as agricultural paper.

It is the belief of department of agriculture specialists that the method employed by the tobacco growers' association could be employed by other cooperative associations, when used in connection with government licenses warehouse receipts. Secretary Wallace says there is a growing tendency on the part of bankers to require such warehouse receipts when making loans based on agricultural products.

A MILK WAR.

ORGANIZED milk producers of Maryland and Virginia and the organized dealers of Washington are engaged in a milk war. The dealers started the strike by refusing to buy milk through the producers' association and the producers promptly cut off their supply. Milk is being shipped in from West Virginia, New York and other sources, but the city health regulations are very strict and if applied as rigidly to the milk from distant points as they are to the product of near-by dairies, there bids fair to be much trouble developed over this milk supply from distant points. The producers claim that the Washington dealers are trying to destroy their organization.

M. A. C. SHORT COURSES ARE STARTED.

FIRST of this winter's series of special short courses in agriculture opened at M. A. C. on Monday, October 31, when the men who will be at the college for sixteen weeks registered. Administration has been placed in the hands of E. B. Hill, who replaces A. M. Berridge. Mr. Hill has acted as secretary to Dean R. S. Shaw for about a year.

Other courses listed number more than a dozen. In addition to the sixteen weeks' general course, these are scheduled: Truck and tractor, four weeks, November 28-December 23; cow-testing and dairy barn management, two weeks, December 5-December 16; general agriculture, dairy manufactures, dairy production, horticulture, farm engineering and farm business courses (all eight weeks), January 2-March 2; poultry husbandry, November 28-December 23; advanced poultry, January 2-January 27; ice cream making, March 16-17; and three more four weeks' truck and tractor courses opening on January 9, February 6 and March 6, respectively.

M. A. C.'s winter courses have become increasingly popular in recent years, until last season a new record in enrollment was set. Officials are hopeful that this year's mark will be even greater.

HUBAM CLOVER GROWERS' MEET.

MICHIGAN Crop Improvement Association growers of Hubam clover seed, meeting at the Michigan Agricultural College on October 18, under the auspices of the Crop Improvement Association and the State Farm Bureau seed department, discussed their 1921 crop and voted to entrust the marketing of their crop to the farm bureau seed department and the Crop Improvement Association.

GROWERS' DRAFTS TO BE REDISCOUNTED.

A RULING was recently made by the Federal Reserve Board to the effect that growers' drafts accepted by cooperative marketing associations should be classed, if the proceeds are to be used for an agricultural purpose, as agricultural paper eligible for rediscount at Federal Reserve banks. Secretary of Agriculture Wallace says he regards this ruling to be one of importance which should result in making bank credit more available for farm use.

This ruling was made in a case where members of a tobacco growers' cooperative marketing association drew drafts upon the association which was acting as their agent only in the sale of their tobacco. The drafts were accepted by the association and

ABOUT THE FARM

Farm Practices and Experiences Tersely Told

PRESERVING THE PAINT BRUSH.

WE have seen brushes many times in the basement, the granary, or some other outbuilding standing in an old paint pail containing a small quantity of linseed oil. A tough skin has formed around the brushes over the top of the oil. When you desire to use one of these brushes, you pull it out and find the bottom of the bristles bent to one side and held together by paint which has settled to the bottom of the vessel.

This can easily be avoided. Simply suspend the brush in the pail and do not allow it to rest upon the bottom. This may be done by boring a hole through the handle of the brush and insert a wire which has been cut long enough to extend across the top of the pail. Several brushes may be placed on the same piece of wire; then pour sufficient linseed oil in the can to cover the bristles.

STORING THE SEED CORN.

OVERCONFIDENCE may shorten next year's corn crop. Many farmers are placing full confidence in the long season and the comparatively mild fall to get the seed corn for next year in perfect condition. They are taking a chance. It is not safe to depend on outside curing. Less risk will be taken if the corn is placed by the kitchen stove, in some room with artificial heat, or in a warm ventilated attic. This will remove the moisture before freezing weather. Corn so handled is certain to show a high germinating test next spring. Freezing has very little effect on the germ of the kernels after the ear is once well dried. Remember that it only takes two hundred ears to plant a ten-acre field and that a single dead ear is sure to mean a considerable loss.

MINERS TO TURN FARMERS.

COPPER mining is in a very bad way and hence the copper country of Michigan is economically not in a happy frame of mind. The board of supervisors of Houghton county recently engaged the services of the Stevens Corporation of New York, to make an industrial survey with a view to ascertaining if there be any new industries that may be introduced to relieve the present situation. The report of this survey was recently presented to the supervisors. Various possibilities are considered, and the development of agriculture is given a prominent place among them. "Without question," says the report, as reviewed in the Calumet News, the copper country will grow rapidly as a farming community and the development in northern Wisconsin and Minnesota should be duplicated. This development would be greatly aided by the development of industries utilizing farm products, such as leather tanning, wood manufactures, creameries, etc." The copper country is the most northerly agricultural section of the state, yet its soil and climatic conditions are favorable to agriculture.—CHASE.

WHEN HE CUT CORN.

CHEMICAL analysis of fodder corn at different stages of growth—tasseling, silking, early milk, late milk and glazing—has furnished data that quite conclusively prove that the crop should be allowed to reach that stage of maturity when the kernels are well dentured or glazed before it is cut for the silo, at which time the lower leaves

are usually beginning to turn yellow. It will then contain the largest amount of digestible food constituents.

In a recent experiment, five varieties of ensilage corn were used, the weight or yields per acre being taken at various periods, and the material analyzed. The results clearly showed that there is a continuous and marked increase in the amount of dry matter (which constitutes the real feeding value of the material) between the tasseling and glazing periods. This increase amounted to two tons, 831 pounds per acre. One ton of corn at the latter period contained nearly twice as much food material as a ton harvested in the tasseling period.

It may be asked, has the corn deteriorated or lost in digestibility by being allowed to come to the glazing



Mrs. and Mrs. George Foote celebrated their golden wedding September 28, at their farm home in Mecosta county, where they have lived forty-one years.

condition? Careful experiments show that there is no marked decrease in digestibility until the corn has passed the glazing condition. In fact, results of experiments show that there is an increase of one hundred and fifty-three pounds per ton and approximately 3,000 pounds per acre of digestible food constituents stored up by the corn crop during the five weeks that elapse usually between tasseling and glazing.

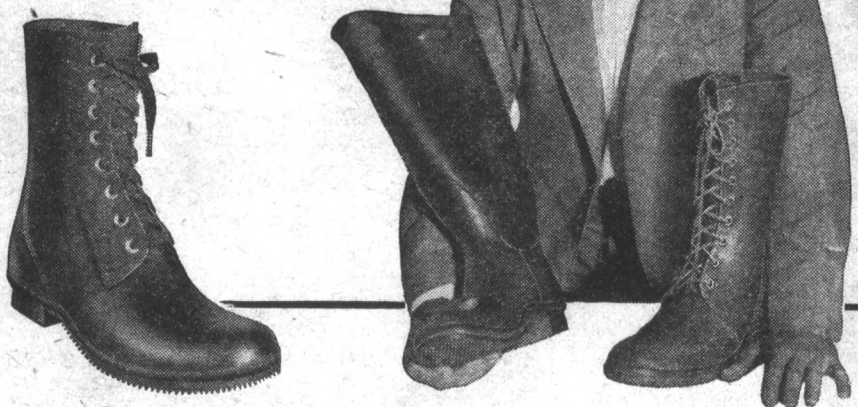
It may not be possible every season to bring the corn to the glazing condition before danger of frost, but, if necessary, it will be well to run a little risk in this matter, as frosted corn, if at once ensilaged, suffers no deterioration. If from freezing it has become too dry, water may be run into the silo while being filled, so that the material may pack well.—E. G.

SWEET POTATO GROWING.

GROWING sweet potatoes on a commercial basis may be undertaken on light sandy soils in western Michigan if further experiments during normal seasons are successful. During the past summer small plantings at Constantine, Allegan and Traverse City have grown to full maturity and were of as good quality as grown in New Jersey or Virginia. The summer was long and hot, permitting a rapid growth. All the tubers were as mealy as the southern product and few of them were soggy.

Two and a quarter pounds of granulated sugar to a pint of water makes good winter food for bees.

Now
just figure it out
ANY way you like!



Hi-Pen—Made to fit same as a leather shoe, but all rubber, water-tight, strong, light and durable. The extra high top makes it ideal for sportsmen and for outdoor work in marshes or very muddy places. The Pennsy is a similar shoe, but with a lower top.



Four Buckle Arctic—For wear over leather shoes. Fleece lined, warm, light and durable. Ideal for cold weather wear.



Top Sawyer—A cold weather rubber shoe with bellows tongue, making it absolutely water- and weather-proof. Made full and wide to wear over woolen socks. The Hi-Top is a similar shoe in the extra high top like a legging and made full and wide for heavy socks.



Look for this green oval when you want satisfaction.

"COLD weather is nearly here. Mud, snow and sleet mean wet, cold feet for outdoor men unless their feet are adequately protected. Leather shoes are not weather-proof and they wear out rapidly in mean weather. Colds, rheumatism and other troubles come from wet, cold feet. What are you going to wear this year?"

"Here's a line of rubber boots, shoes and arctics that has been especially designed for protection and foot comfort. Snag-Proof Rubber Footwear is absolutely water-and-weather-proof. The special steam cured in vacuum process makes them exceptionally long wearing, strong and sturdy.

"We've got just exactly the type rubber boot, shoe or arctic that will answer your every need. Here is the famous Snag-Proof short boot that has been preferred by outdoor men for over fifty years. It is particularly comfortable, snug-fitting, light and springy—ideal for general use where there is lots of mud or wet weather. Other models are illustrated and described on the left of this page. Come in to see them—you're always welcome.

(Signed) Your Snag-Proof Dealer"

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"SNAG-PROOF"
Rubber Footwear

How Bees Keep Warm in Winter

Some Practical Suggestions on Cold Weather Protection

By H. W. Sanders

AS a result of the careful experiments at Washington, we are now able to state definitely just how the bees contrive to live over winter, how they turn their stored-up honey into heat, and the most desirable temperature and conditions of wintering. Briefly it may be said that as soon as the temperature surrounding the bees falls below fifty-seven degrees they will begin to draw closer together and form a cluster. They form themselves into a hollow sphere which is so closely constructed as to retain heat, even when the surrounding air is fifty or sixty degrees lower in temperature. As the interior of the hive is occupied by combs that have only about a quarter of an inch bee-space between them, the cluster is formed to include whatever portion of these combs run through it, and the bees crawl into the empty cells on the edge of the cluster to prevent the heat from escaping at this point. They cluster where the combs are well filled with honey, and gradually consume it as the cluster moves upwards.

The cluster appears to be motionless when one has a chance to see it, but if one watches closely there will be a movement every little while. A bee from within the cluster, having "warmed up," as we should say, pushes through the solid wall of bees, turns round, and takes her place on the outside, where she becomes one of the insulators in her turn. The position of the bees exactly resembles those of the shingles on a roof, each bee covering with her abdomen the head and thorax of the bee immediately underneath. Inside this hollow ball, a number of bees are always occupied in making heat by rubbing their legs, by fanning with their wings and other activities. Thus the fuel in the honey is transformed into heat through muscular energy, exactly the same as a man getting warm by running.

Bees are cold-blooded, and as they do no hibernate like flies and most oth-

er insects, they are obliged to keep up their heat in this manner, and it is to this cause that we may trace the "hoarding instinct," the operation of which makes the honey-bee of use to man, for their existence depends entirely upon their ability to accumulate sufficient stores to survive the long winter.

The buzzing that we hear when close to the hive is a good indication of the welfare of the bees. When it is quiet and so low as to be hardly heard it means that the bees are so comfortable that they need only generate a small amount of heat. When it is loud and restless it means trouble—and every beekeeper knows that the colonies that die are those that were noisy during the portion of the winter before they actually expired. It is a wonderful thing that when a colony does die, that the life of the queen is prolonged to the last, and we have had hives that came through to spring with only the queen and a mere handful of bees.

The life of the bees in winter has been well likened to the fire in a stove. When we close the draft so that it burns slowly we get a fire that lasts a long time, but when the drafts are opened, there is a strong heat, and soon the fire has burned out. The bees are the stove and the honey the coal, and if conditions are such that they consume their honey very slowly, they are quiet, and likely to come out in spring

well and hearty, but if anything is present that causes them to become noisy, they "burn out" quicker and die.

Now by controlling these conditions that arouse the bees to activity we can prevent to a great extent winter losses. The first matter to claim our attention is temperature. To get the air surrounding the bees as near fifty-seven degrees as possible, whilst still supplying fresh air, is not such an easy problem, and two ways have been found in practice to accomplish this. The first is to place the bees in a cellar where the temperature is from forty to fifty degrees (the best temperature in any one case depending on the moisture in the air). The bees keep up their fifty-seven inside the cluster, and the slight draft induced by convection gives them the fresh air they need. If the cellar is much higher than fifty degrees the bees will get uneasy for lack of fresh air, and will come out of the hives and die on the floor in great numbers.

The second method of temperature control, is to pack the hives outdoors on their summer stands, placing packing all around them so that the heat generated inside the hive can be kept from escaping. A small entrance gives all the ventilation required. This packing should be at least from four to six inches thick, and may consist of sawdust, dry leaves, planer shavings, excelsior, cork, or other dry insulation.



A colony of bees need about the same treatment as a block of ice that is to be packed for summer use.

With these two conditions right—temperature and ventilation—a strong colony of bees with plenty of stores of good quality, should be able to pull through. There are, however, one or two other possible causes that may stir the bees up to undesirable activity. One of these is mice. These little pests will sometimes get into a hive in the fall, after the days have become cool enough to prevent the bees from stinging them to death, and there they will make their home all winter, eating the honey and wax, ruining the combs by gnawing long runways through, and stirring up the bees to such activity that they die of overwork and dysentery before spring.

In a bee cellar it is necessary to combat mice all the time. Have the cellar built so that there are no places where they can get in. Cover ventilators with fine mesh wire. Have the entrances to the hives so narrow that they will admit a bee but not a mouse, and keep baited traps and poison bait in the cellar all the time.

Bees can only discharge their feces whilst on the wing, and so they have to accumulate all the winter's residues of their food till they can get a flight. The advocates of outdoor wintering insist that the occasional days that occur in winter, or early spring are a great benefit to the bees on this account. Whether the disadvantage and expense of packing offset this is a matter of opinion. Personally we have always had such good success in cellar wintering that we do not feel disposed to change.

If the food is of poor quality, these accumulations make the bees uneasy long before spring, and this is in turn a disquieting cause, so that colonies are lost sometimes from this trouble. We always find it pays us to give nothing but the best honey, or granulated sugar syrup, for wintering.

How to Prevent Colds in Poultry

Colds Which are Common at this Time of Year Cut Poultry Profits

By R. G. Kirby

A LARGE number of losses in poultry flocks are caused by simple colds which are neglected and soon bring on roup, bronchitis and various respiratory troubles. Many poultrymen have to spend time in trying to cure such infections when the work of prevention would be much more economical.

Here are some of the simple methods of keeping a flock free from colds. Eliminate the mites and lice. Those pests deplete poultry and make them less resistant to colds. Undoubtedly tuberculosis is more prevalent in flocks where the hens are steadily drained of their blood by mites and their skin is constantly irritated by lice.

Dusty litter is another cause of colds. If the poultry house has a floor covered with garden loam it means that much of the soil will turn to dust in the winter and it will be kicked into the air by the scratching of the birds. This dust settles all over the poultry house and the air is always unclean, making it unhealthy for both the hens and their caretakers.

Sand and not garden loam is necessary if any dirt is used on the poultry house floor. If sand can not be obtained easily, I believe it is better to have a cement or board floor in the poultry house and cover that with a deep straw litter, but use no soil.

Fresh straw can occasionally be added as the old litter becomes packed down. All of the old litter should be removed when it becomes damp, tough and dirty and observation proves it is unfit for scratching material. The number of birds in the house will influence the condition of the litter. Overcrowding either in the corners of the house or on the roosts will cause the birds to become overheated. Then they are chilled on going out on the cold ground and this causes colds.

Young stock are sometimes slow in learning to roost and crowd each night in groups in the corners of the houses. It pays to provide ample roosting space and teach all the birds to roost. Early roosting may cause an occasional crooked breast, but that condition will not happen often in vigorous stock and a few crooked breasts will cause less loss than an epidemic of colds and roup.

To watch for the beginning of colds, fasten the poultry in their houses at night. The next morning open the door a short distance, which will allow the flock to come out slowly. Watch their heads to see if there are any swollen eyes. Note the feathers;

around the neck to see if they are smeared with the secretion which the bird has endeavored to remove from its sore eye. If any birds are slow about coming out, look them over thoroughly. This quick inspection will locate any colds that may be just beginning. Such cases can be isolated and treated at once.

At night walk along the roosts. Listen for hard breathing which may be due to colds or bronchitis. Colds of any kind can spread through a flock and any birds that show signs of illness must be removed. Poultry diseases can be spread rapidly through the medium of the drinking water. It pays to color the water a deep red with permanganate of potassium if many colds seem to be starting in the flock. This disinfectant will help to stop the trouble. When it is used the hens must have no other source of water supply or they will not touch the red water. It does not pay to use the permanganate unless it is quite necessary, as the hens should drink plenty of clean water to keep them in a healthy laying condition.

Another way to prevent colds is to kill a bird that is seriously ill with

roup and burn or bury the carcass deeply. Often breeders try to doctor a bad case with roup cures and after much hard work the bird has to be killed. Or the bird appears about well and is turned loose with the flock, only to spread the contagion to other birds. Some cases can be cured but they are a great risk on the premises. By giving the birds frequent health inspections it is usually possible to prevent colds and roup and this is better than trying to make cures.

Poultry houses are frequent causes of colds. Damp floors, leaky roofs, draughty houses or the lack of ventilation will cause sick birds. Removing those causes is a great help in keeping the flock healthy. The open-front house has been proven to be a dry house, while the closed house will show dampness all over the walls and windows. The damp house is a cold house. Birds can stand a lot of cold, but dampness is bad for them. The cold draughts which blow the feathers out and expose the warm body also cause a chilling that may result in colds. The hens are tropical birds and their dislike of cold winds is proven by the appearance of the range on a cold windy day. The hens will be out of sight seeking shelter almost anywhere that they can obtain protection from the wind.

Let's Get Out of the Woods

By Worth C. Knowles

IT is an undeniable fact that many farms are hedged in by an impenetrable jungle of weeds and unsightly brush. These are decidedly unornamental and most injurious to the value of the farm upon which they trespass.

Is it any wonder that our city friends call us rustic and backward after they have viewed our homesteads from the highways? If they stop to peer through the dense foliage that lines the roadside, hordes of bloodthirsty mosquitoes swarm forth driving them away from the farms and back to the city. Possibly, they visit another section of the country where roads are paved and the brush and trees at the roadside have been properly trimmed. Eventually, this means that these jungle-like grass grown roads will be little traveled and the farmer residing along them will find himself in the backwoods, on a dirt road that is an impassable sink in wet weather and a source of suffocating dust in dry seasons. Where the tourists from the city lead the good roads follow and with the improved highways comes prosperity for the farms along them and an increasing desire to live in that community.

Community prosperity brings farm buyers, people who want a permanent home in a beautiful spot. It is this way that the renters of the drifting sort are excluded from leading communities as they should be.

Particularly disorderly and unneat in appearance is the road which is lined with briars, weeds, and ungainly sprouts growing from half-decayed stumps. Of course, some young trees should be preserved as an absolutely

little use and furnish shelter for the weeds and brush.

Fences about the farm, whether along the road or enclosing fields should be kept free from weeds and unnecessary brush. Especially on the line fences, where a clean row may inspire the neighbor on the opposite side to clean up his own row.

Get out the axe and scythe and clean up! Make an impression in your own neighborhood by setting a good example, a clean community makes for clean townships, counties and states.

Progressive, modern appearing farms symbolize prosperous farmers and as



Hedges and Dying Trees Are Unsightly Objects.

a result, the farms will be more valuable and will make their owners more prosperous and contented.

Making your farm worth living on may aid in keeping the boy and girl at home. It is the brush hidden, back woods farm that often drives them to the city.

FORD TO TRY SCIENTIFIC FORESTRY.

IT seems that Mr. Henry Ford intends undertaking scientific lumbering on a section of land some two miles from Sidnaw Ontonagon county. This project is intended as an experiment and demonstration, says Mr. E. G. Kingsford, who is in charge of the work, rather than a process that is to be definitely adopted on all the Ford holdings here. It is desired to determine just what can be done by scientific methods as applied to forest operations. No trees of less than ten or twelve inches in diameter will be cut, tops and large limbs so far as possible will also be utilized, slashings will be removed, as will also the balsams which are a fire men-

ace. The young forest, after the removal of the mature stand, will be left in good condition to continue its growth toward maturity. Mr. Kingsford sounds a note of warning that, if such methods are not adopted generally, wood-using industries will find themselves handicapped later on for lack of raw material. It is hoped that the example about to be set will be found practicable by other lumbermen and that a new era in logging operations will appear. Anyone who traverses the cut-over country of northern Michigan is painfully conscious of the wasteful havoc wrought.—CHASE.



A Beautiful Neat Roadside with Trees Properly Spaced is an Asset to Any Farm.

bare roadside is like a city park without trees or shrubs.

Occasionally a farm is enclosed by an osage orange hedge. In prairie states these are excusable, but in sections of a more uneven nature these hedges are out of place, and moreover, they furnish an unsightly harbor for weeds, undergrowth and debris caught by the thorny branches. Along a road they are an aggravation during winter when they cause the snow to bank up and block traffic. Stump fences are in the same class. In some states they are still to be found in more or less cultivated sections, but they are of



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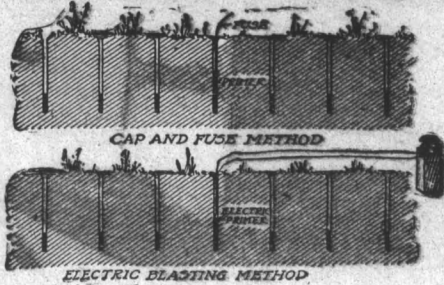
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For catalog write F. W. Harding
Union Stock Yards, Chicago.

ABERDEEN-ANGUS SALE
Wednesday, Nov. 30th, 1:00 P. M.
For particulars write Chas. Gray,
Union Stock Yards, Chicago

HEREFORD SALE
Friday, Dec. 2nd, 1:00 P. M.
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FARM BUREAU NEWS

CERTIFIED SEED POTATOES SELL WELL.

MR. C. W. WAID, vegetable marketing specialist for the Ohio Farm Bureau Federation, reports a strong demand in Ohio for Michigan certified potato seed, particularly Petoskey Golden Russett. The State Farm Bureau seed department is now assisting the members of the Michigan Potato Producers' Association who grow certified seed potatoes in disposing of their stocks in and out of the state.

Pennsylvania is another state with a liking for Michigan certified seed potatoes. It is said that experiment station folk there has shown Michigan certified seed potatoes of certain varieties to be very well adapted to Pennsylvania conditions and are superior to Maine, New York and western seed stock.

FARM BUREAU ARRANGES FOR GRIMM ALFALFA.

DISTRIBUTING connections just made by the State Farm Bureau seed department with the Idaho Grimm Growers' Association of Blackfoot, Idaho, virtually moves into Michigan that tiny area of the United States which produces most of the world's supply of genuine Grimm alfalfa seed, says the farm bureau, in pointing out that hereafter Michigan farmers are practically assured of a constant supply of genuine Grimm alfalfa. Most of Michigan's Grimm alfalfa seed comes from the northwest.

The Idaho Grimm growers at Blackfoot, Idaho, are a unique organization. Their territory is a little patch of Idaho about five miles wide by perhaps twenty-five miles long. In this rather sparsely settled area the vast majority of the world's supply of genuine Grimm alfalfa seed is grown, it is said. The Idaho Association is represented east of the Mississippi by R. V. Tanner, of East Lansing, Michigan. He has his quarters in the State Farm Bureau offices at Lansing. The State Farm Bureau is to assist its members and those of other middle-west farm bureaus in securing Idaho seed.

STATE TAKES CHARGE OF DEVELOPMENT BUREAU.

THE Marquette office of the Upper Peninsula Development Bureau has been taken over by the Michigan State Department of Agriculture, its manager being subordinate to Mr. J. A. Doelle, Director of the Bureau of Agricultural Development in the agricultural department. Mr. George E. Bishop, formerly manager of the Stambaugh Township Development Bureau, Iron county, is directly in charge of the Marquette office. Mr. Bishop will be given every facility for developing his office progressively in the interest of northern Michigan agriculture and development. The state assumes a portion of the expense of the Marquette office, the remainder coming from appropriations by county boards of supervisors and from private sources. There can be no doubt that the future will witness even greater developmental activity than has formerly been the case, and that some very significant undertakings both at Lansing and at Marquette are impending.—C.

WOOL POOL NEWS.

ABOUT \$125,000 in checks has been disbursed up to October 26 to 1920 State Farm Bureau wool poolers in the final settlement on the 1920 pool, the round-table discussions in the women's farm bureau wool department announced at the close of last week.

Checks continue to go out at the average rate of about four hundred a day.

With approximately half of the 1921 pool gone to market the wool department bit into the remaining half of the pool during the week of October 24 by disposing of 100,000 pounds of short wool to a Michigan mill at what was said to be a very favorable price.

Nearly 250,000 pounds of wool have been pooled since the summer grading campaign was completed September 1 last. Calls for graders to make return trips to local grading points of the summer campaign have brought into the pool as much as 30,000 pounds of wool on a single call. Many wool growers have shipped their smaller lots directly into the central grading warehouse in Lansing where the farm bureau has been grading and making the same fifty per cent cash advance on the value of the graded wool that characterized the summer campaign.

ELEVATOR EXCHANGE MAKES PROGRESS.

PROGRESS of the Michigan Elevator Exchange, now the largest farmers' cooperative grain marketing organization in the state, for the past six months, as reported to the board of directors at their regular quarterly meeting, October 25, at State Farm Bureau headquarters in Lansing, was voted as follows:

Expansion from seventy-five to ninety-seven member elevators; assurances of powerful credit resources from the banks; changing of the lumping of goods by locals into direct sales to wholesalers, millers, and exporters on ninety-seven per cent of the entire business; attainment of a position of recognized standing in grain trade circles.

The directors accepted the resignation of Jacob Landis, of Freesoil, a member of the board of directors, and he was succeeded by L. C. Kamaloski, of Washington. Intending to spend the winter in the south, Mr. Landis preferred to have his seat occupied by an active director.

Elevator Exchange members of the board of directors interested in beans and delegates from elevator members that handle beans will meet in Saginaw on November 7 to discuss methods of handling picking stock.

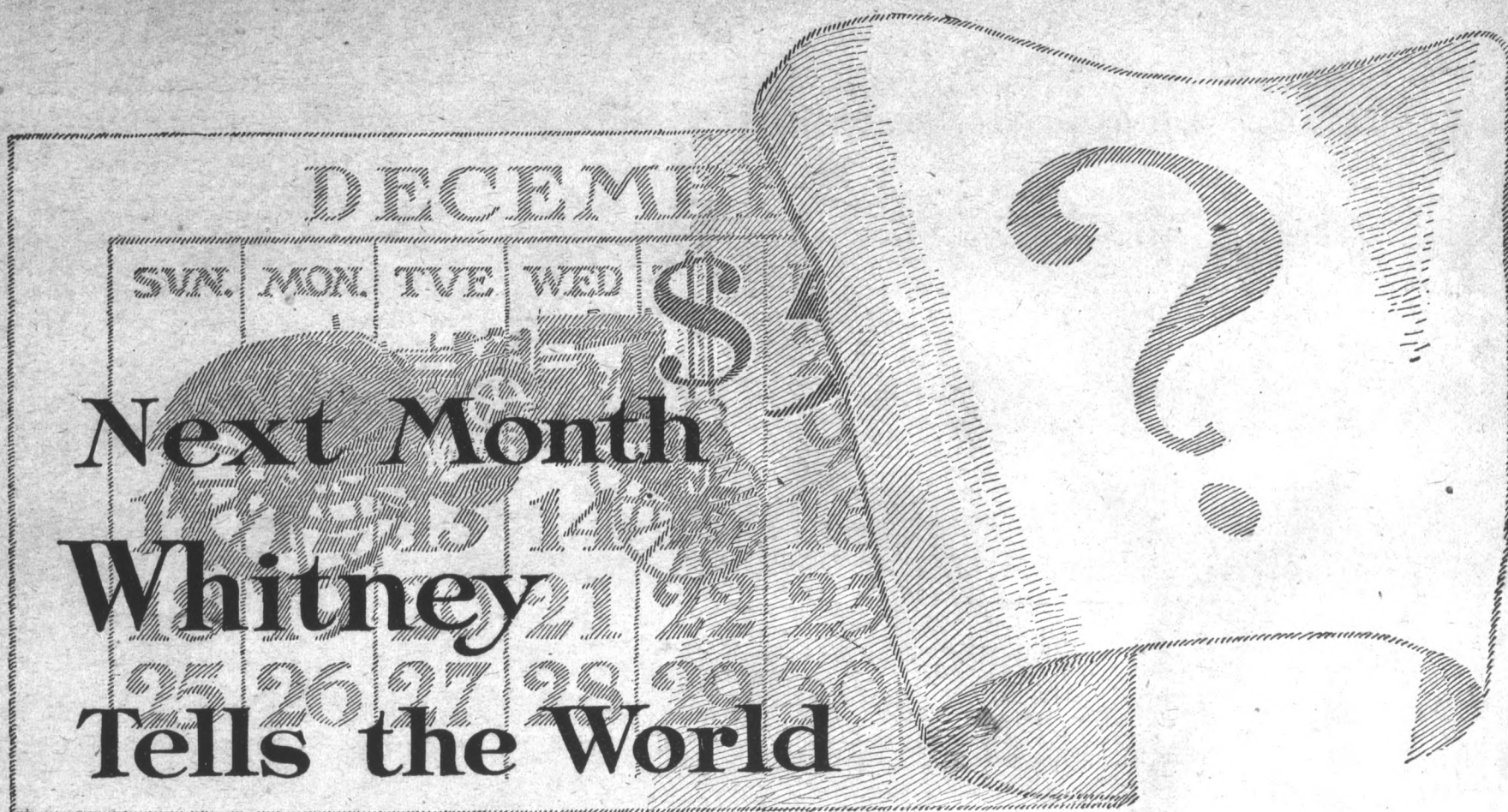
COUNTRY WOMEN TO ORGANIZE.

ORGANIZATION of country women is to be left with delegation of farm bureau states women who will be invited to attend the third annual convention of the American Farm Bureau Federation at Atlanta, Ga., November 21-23, the Woman's Committee of the Federation decided at its first meeting at Chicago, October 21.

Mrs. John C. Ketcham, of Hastings, Michigan, is a member of the woman's committee.

Each State Farm Bureau Federation is to be asked to appoint and send at least one representative farm woman to Atlanta. One afternoon of the three-day program will be set aside for all visiting women to meet with the woman's committee to ratify, modify or reject the committee's plan for affiliating women with the American Farm Bureau Federation. The method accepted by the women themselves for mobilizing country women will in turn be presented to the convention for consideration.

Each state woman attending the conference will be assigned a topic for the final settlement on the 1920 pool, the round-table discussions in the women's farm bureau wool department and special assembly, it is said.



DECEMBER 1st---a red letter day in tractor history---a day that marks an epoch in the development of power farming in America. For on that day the curtain will be raised on an event of vital significance to every farmer in the country---the announcement of the new price on the Whitney tractor. It is a price based on huge production---

SPECIFICATIONS

Power---9 H. P. on drawbar; 18 H. P. on belt.

Dimensions---Length, 123"; width, 56"; height, 58".

Weight---Domestic shipping, 3000 lbs.; boxed for export, 3900 lbs.

Transmission---Selective 3 forward, 1 $\frac{1}{2}$, 2 $\frac{1}{2}$, and 4 mi. per hr. Reverse 2 M. P. H. All gears forged, steel cut and hardened, running in oil.

Clutch---Contracting band.

Brake---Contracting band on rear axle.

Drive Wheels---48" di., 10" face.

Fenders---Pressed steel over rear wheels, regular equipment.

Front Wheels---30" di., 5" face.

Motor---2 cylinder, opposed type, 5 $\frac{1}{2}$ " bore, 6 $\frac{1}{2}$ " stroke, 750 rev. per minute.

Governor---Whitney Special fly ball type. Inclosed gear driven.

Pulley---Direct driven from crankshaft. Size 11" diameter by 6 $\frac{1}{4}$ " face. Clutch controlled. Pulley regular equipment.

Lubrication---Force feed oiler.

Radiator---Tube type.

Circulation---Gear driven rotary pump.

Ignition---High tension magneto. Impulse starter.

The Whitney is a sturdy, time-tested, field-proven tractor, built to pull two 14" plows or operate a 22"x34" thresher. It has the traction strength and reserve power found in the best of the two-plow jobs built. It has not been "rated up." Instead it is under-rated. Bearings all oversized; drive wheels 6" larger than found on the average 2-plow machine. No extras to buy. A one-man tractor which will plow 6 $\frac{1}{2}$ acres a day or draw a double 8-foot disc harrow and cover 2 $\frac{1}{2}$ miles per hour.

The Lowest Price---and the Biggest Value---in Tractor History!

Whitney has been making tractors for 16 years. The present Whitney machine, thoroughly proven through five years of reliable performance, has been selling for \$1175.

Yet the Whitney folks realized that that price was too high--realized that tractor prices *had* to come down to the price level of other machinery--and of farm crops. They were convinced that the time had come when someone had to

step in and manufacture tractors on a *big-scale, close-margin, low-price basis*.

Huge production was the only answer. So Whitney concentrated the entire force of a \$5,000,000 company on the manufacture of this one time-tested model. The result is a *real utility tractor*--a standard two-plow machine, long-lived, dependable, proven--at a price so low that *every farmer in the country can easily afford to buy it*.

NEXT month--on this page--you will learn the new price of this sturdy, dependable tractor. You will learn the facts regarding this biggest tractor value ever put on the market. Your dealer will be glad to tell you the Whitney story. Or a word to us will bring complete information.

The Whitney Tractor Co.
A \$5,000,000 Corporation

Whitney
Tractor

2747 Prospect Ave., Cleveland,
Ohio

Why should you follow a crooked path?

Often a cowpath has been allowed to become a village street, and as the village expanded, tradition has made the winding way an expression of a cow's will.

Habit is always forging chains to enslave us, so that what has been found bearable by the fathers is accepted by the sons.

Who cannot recall the coffee-pot Mother put on the stove early in the morning, warning us not to let it boil over?

As children, we were not permitted to drink tea or coffee, because it would stunt our growth or make us nervous and irritable. When older, however, we craved a hot drink with meals, and custom gave us our tea or coffee.

Finally upon the instructions of the doctor, Mother gave up her tea and coffee. But that meant nothing in our young lives. Our vitality was then strong enough to throw off any ill effects.

But our time came, and we learned by experience that we could not drink tea or coffee. When we had it for breakfast it put our nerves on edge. When we drank it at the evening meal, we tossed about in wakefulness most of the night.

And then we found Postum, a pure cereal beverage, free from the harmful drug, caffeine, in tea and coffee. We liked the rich, satisfying flavor of Postum—and also the better health which resulted. And, too, we were surprised to find how many of our neighbors had made the same discovery—had learned the value of "health first."

Postum comes in two forms: Instant Postum (in tins) made instantly in the cup by the addition of boiling water. Postum Cereal (in packages of larger bulk, for those who prefer to make the drink while the meal is being prepared) made by boiling for 20 minutes. Sold by all grocers.

Postum for Health
"There's a Reason"

Given to Trappers FREE

DOLLAR SKINNING KNIFE SHARPENER
Just to get acquainted, send your name and we'll send free of cost the "Dollar Skinning Knife Sharpener." It fits your pocket—keeps edges keen and works like lightning. We want your name to keep you posted on world fur prices. You'll lose money if you don't get our figures. We sell fur all over the globe—when it's low one place it's high another. We find the high markets always.

MORE FUR MONEY

We give honest grade; pay more than you've been getting. Last year when other houses were refusing fur we were glad to get it. Your bank will tell you we're a million-dollar house, and your experience with us will make you ship here right along. The Clay way is the best for you.

Send your name today—a postal will do—we'll send the free "Dollar Skinning Knife Sharpener" and keep you informed on world fur prices that will open your eyes.
Ship Your FURS for the World Trade if You're After Profits
Clay Export Co., 1123-W W. 35th St., Chicago



Men Wanted to sell dependable fruit trees and shrubbery. Big demand. Complete co-operation. Commission paid weekly. Write for terms.
Willems Sons' Nurseries, Rochester, N.Y.

Good Reading

OFFER No. 306.

Michigan Farmer, one year.....\$1.00
Woman's World, one year......50
Little Folks Magazine, one year 2.00

Total value\$3.50

All for \$2.30.

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OLIVER DIX
Plymouth Phone 306F5, Salem, Mich.



Getting Ready for the Big Show

(Continued from page 419).

ple. Have uniformity of length, number of rows and shape.

One should remember the value of first impression. If the sample is uniform, shows good type, and adaptation it is sure to be seriously considered, but if it is off in any of those points it will be soon placed in the also-ran class.

In summing up, we might say, select ten ears which are of the proper size, to be well adapted to your region, as near equal in length as possible—equal in number of rows, cylindrical or slightly tapering, and which are straight rowed and well filled. Such a sample is sure to be considered with the winners.

Yield.

If your sample passes the above standards then the judges are ready to give it its next test, which probably will be its yielding possibilities.

Yield is indicated by size of ear, and length and shape of kernel. Do not select a type that is too deepkerneled. Beware of the deep narrow or "shoepegged" kernels. Stay to the wedge-shaped, or better yet, the keystone type of kernel which carries its breadth well down toward the tip of the kernel. Discard the broadkerneled ears as these usually mean considerable waste places on the ear which naturally indicates a deficiency in yielding capacity. It is wise to maintain uniformity of kernels and to discard ears that carry irregular kernels excepting on butts and tips.

Caution.

Do not remove kernels from the ears as this is against the rules of the show and if done would cause your sample to be disqualified.

The circumference of the ear should be three-fourths to four-fifths of its length when measured one-third the way from the butt. In studying the circumference one should always consider the cob. Very often a large cob makes the large circumference and large cobs are discriminated against.

Breeding Points.

Uniformity of ears and kernel, and shape of ear are, of course, taken into consideration under the head of breeding which, on a score card, is given about thirty-five out of the possible one hundred points. We have already mentioned these points so will pass on.

Of the so-called finer breeding points color ranks first, in the opinion of a great many judges. The ears should be of uniform color and characteristic of the variety. A red tint to kernels of yellow corn is permissible and allowances are usually made for a purplish tint on white corn. The color should be bright and lustrous. All cobs should be of one color, namely, deep red in case of yellow corn, and white if the exhibit is of white corn. Any mixture is certain to hurt the standing of the sample so be careful in your selection.

Seed Condition.

Those samples showing good breeding, yield, and adaptation will next quite likely be given the test of condition. This is very important for no seed is good seed unless it will grow.

One of the first things to be considered under the topic of condition is the germ which is the embryo of the plant. If the corn is much injured it is almost certain to show in the germ because it is the most sensitive and delicate part of the kernel. The germ should be large, extending well over the face of the kernel, should be bright in color, free from wrinkles and blisters and when cut crosswise should be a light creamy color and display a

slightly elastic texture under the pressure of a knife blade.

The kernels and cob should be free from excessive moisture, mould and disease. Should not show immaturity, i. e., kernels should be plump, lustrous color, hard endosperm, translucent, hard, brittle, free of wrinkles or blisters. Kernels should break free from cob, no chaff adhering to kernel. No tip caps breaking off. The cob should be firm, with bright lively color.

The ten ears selected should be uniform in length, in circumference, in number of rows, and conform to the same general type. Each ear should carry good types of kernels which are uniformly well placed. Each ear should be of a good bright, healthy appearance and pleasing to the eye in every respect in so far as is possible.

In Region No. 1 there is a great deal of Flint corn grown and Michigan growers should do very well in this class.

Remember that there are ten-ear classes of Yellow Dent, White Dent and Flint corn, and single-ear classes for each region. Pick out an outstandingly good ear for your entry in this class and then select ten more ears that conform as closely as possible to the type represented by the single ear.

The farm crops department of the college and the Michigan Crop Improvement Association are cooperating with Michigan farmers with the aim in view to place Michigan on record as an A-1 corn state. Look over your corn, make your selections and then carefully wrap each in paper, box well, and mail it to the writer at East Lansing, Michigan, who will see that it is entered at the show and properly cared for, after which it will be returned to be entered at the Winter State Show. Call on Prof. J. F. Cox or R. J. Duncan, East Lansing, for suggestions. They will be pleased to offer every possible service. By all means be sure to have your sample in our hands by November 15.

Farmers having a good quality of small grains may forward a representative sample to the writer and information as to further procedure will be promptly forwarded. Last year Michigan made a wonderful record in the wheat and rye classes and we want to do our level best this year and add some corn prizes to our list, too.

Remember that this is a farmers' show and Michigan farmers should line up and put it across. It is our opportunity to demonstrate the high standards of Michigan's farmers and the value of Michigan farms.

SELLS APPLES IN UPPER PENINSULA.

AFTER a successful shipment of apples, personally conducted to Marquette in the upper peninsula, last season, an Ionia county farmer has again made a shipment of three carloads to the same point, not so much because he had no market in lower Michigan, but rather because he wishes to maintain a good established market in northern Michigan. He shipped about five hundred bushels per car, costing him for freight about twenty cents per bushel, with another twenty cents per bushel basket. After shipping his apples loose, last year, he finds it advantageous to basket them to facilitate handling at the terminal and thus avoid demurrage charges. His retail price in Marquette is \$3.00 and \$3.50 per bushel.—C.

KILL YOUR QUACK GRASS IN THE SPRING.

AN article in your issue of September 24, by John R. Rood, entitled "Fighting Quack Grass Without a Hoe," has prompted me to relate my own experience.

Some six years ago I noticed a few patches of quack grass had worked their way into one of my fields from the highway. If I had the same condition to contend with now I would dig them early in the spring when the ground is soft, and burn the roots. It would have taken less than a day, and would have saved me considerable bother and expense. A person can dig a lot of quack grass in a day if it is just in patches. I had had no previous experience, however, so I tried killing it with a hoe and then tried pulling it. Then I seeded the piece to clover and let it go.

My first success was three years ago, when I set a somewhat infected piece to raspberries, and raised a crop of cucumbers between the rows. The cultivation was very thorough and both the berry plants and cucumbers made a vigorous growth. I do not remember thinking about the quack grass at all as we cultivated, my man did part of



Corn in the Quack Grass Field.

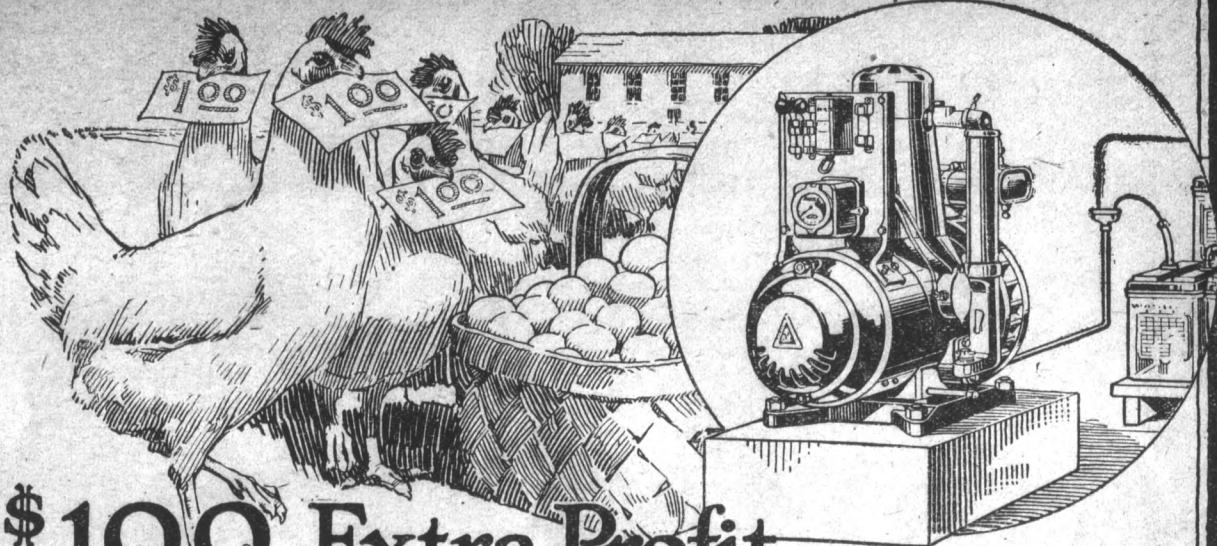
the work, but along in the summer it occurred to me that I had not seen any in that piece for a long time, and I began to wonder just what I had done to destroy it. I do not know yet, but I had a theory that I felt sure of, so I plowed up my clover piece the next spring with a determination that in the fall there would not be a spear left.

I planted the field to silage corn, hilling it so I could cultivate it both ways and hand-hoe it. Our corn grew very high with lots of leaves for shade and we cultivated and hoed continually. But when the corn was in the silo and we could look over the field, I could not see that we had hurt the quack grass much. I sowed rye immediately to be plowed under in the spring for another crop of silage corn. My enthusiasm about getting rid of the pest was getting pretty well down, but I put in half a day digging outlying patches, and made up my mind to do the best I could with the cultivator and let the hoeing go.

We cultivated before the corn was up, and three times more as rapidly as seemed advisable, and then rose bugs, leaf hoppers, grape berry moth, etc., took up our time. But this year when the corn was in the silo, I could not see very much quack grass in the field. What there is left I can dig up in a few hours in the spring with a potato fork.

I have noticed while digging quack grass at this time, that many of the

(Continued on page 430).



\$100 Extra Profit from 100 Hens

25 Styles and Sizes
\$250 up
f. o. b. Dayton, Ohio

Read These Letters

"Delco-Light has increased my egg yield to such an extent that it will pay for itself this season—that is, in six months' time."—Chas. W. Sculles, Cobury, Ontario.

"Nov. and Dec. — we received 24,215 eggs—an increase in profit of over \$850.00, which left quite a balance above the cost of Delco-Light installation."—E. M. Van Inwagen, Oak Corners, N. Y.

"Here are our results: 1920 (no lights), Feb., 34 dozen; March, 46 dozen; 1921 (with lights), Feb., 51 dozen; March, 112 dozen. I am putting 200 laying hens under Delco-Light this winter."—E. A. Jones, Wauke, Iowa

ONE dollar extra per hen per year, is the record of poultrymen who keep hens under electric light a few hours in the winter mornings and evenings.

Delco-Light provides the means for lighting poultry houses at little cost. An inexpensive automatic switch turns the light on and off at the right time.

Think of the extra profit Delco-Light will earn. More eggs in the winter when prices are high! And this same Delco-Light plant will furnish light for the house, the barn, and the farm yard. It will furnish the power to do the chores and pay for itself in a short time.

Mail Coupon for Booklet

WE have prepared a booklet on the lighting of poultry houses. It is called "The Miracle of More Eggs." It contains the reports of experiments of Cornell University, Washington State Agricultural College, and some of the largest poultry raisers in the country. It explains in detail how and when the hen houses should be lighted to secure the best results.

A copy of this booklet will be mailed to you without cost or obligation. Simply sign and mail the coupon.

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Run Steady—Cut Faster.
Shipped Complete—Engine and Saw as Shown—Ready to Use.

For a SHORT TIME Only

We will include regular \$35 Tree Saw equipment FREE with every WITTE Log Saw. You get Both For Only

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From Pittsburgh, \$6. more.

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The WITTE Log Saw is a Big Capacity, strongly built outfit—Easy to operate. Runs all day on 2 gallons of fuel. Positive Lever Control. Start or stop saw while engine runs. Only Arm Swing Log Saw with interchangeable Tree Saw Parts. Makes Log Saw a fast-cutting Tree Saw as shown. Change in 5 minutes. Clamps to tree below saw in 10 seconds. Most practical—lightest—easiest to use tree saw equipment built. Big 3-color catalog tells all about it—Free. Don't buy any log or tree saw until you know about the WITTE. Sold direct—Cash or Easy Terms. Write today.

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Above cut shows WITTE Force Feed Tree Saw Equipment attached to Log Saw. Cuts tree clear down. This equipment Free if YOU ORDER NOW

Write for big Log and Tree Saw Catalog Free

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The Mill you have always wanted can now be had at cut prices. Bigger value than ever before.

Grind More—Worry Less.
The Bowsher is good for a lifetime.

A money maker for those who grind and mix their own feeds. Write today for New List and catalog.

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1 1/2 H.P. ENGINE IS NOW ONLY \$35.50
Other sizes 2 to 22 H.P. at low prices. Good engines sold direct to you. 30 Days Trial. 10 Year Guarantee. Write for Free book before you purchase any engine. **OTTAWA MFG. CO.**
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Monarch
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THIS coupon will bring to your home the wonderful Monarch Player-Piano, the charming musical instrument that all the family can play. We want you to hear the beautiful design and learn how the Monarch will brighten your home life. No money to action; see the beautiful design and learn how the Monarch will brighten your home life. No money to nearest address. (Address nearest city) Dept. 6-B

THE BALDWIN PIANO CO. (Address nearest city) Dept. 6-B
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In only one design, one model, and made in large quantities, the Monarch is an exceptional value at \$485. A lifetime of the good music you long for.

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Indianapolis Louisville Dallas



See the
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\$485
unusual value

Send
it now!

Our Service Department

ACCESS TO HIGHWAY.

There was a drain put through our farm lately which cuts our farm in two. The drain was let as a drain and public highway. The bridges are fifty-five inches from the water. Is the towship supposed to give me a roadway or build a bridge to give me access to the cut off land, as there is no roadway to it?—P. K.

The statute expressly requires the highway commissioner to furnish the bridge in the first instance, but the owner must maintain it after that. In the absence of statute there is no duty by the public to provide the access of private owners to the highway.—J. R.

CATTLE KILLED ON TRACK.

If a horse breaks out of pasture at night and strays onto railroad tracks and gets killed, who loses? There are no cattle guards at the crossing.—C. R. B.

If the horse was killed on the railroad track inside the railway private right-of-way, by which is meant outside of the highway, the railroad company is liable, there being no cattle guards. But if the horse was killed in the highway, the fact that there were no cattle guards is immaterial. J. R. R.

MAIL CARRIERS.

Can a mail carrier be compelled to drive a half mile down and back from corners where there are four families living on said half-mile? I've heard we could make him drive past here. Before routes were changed, this was the main road he traveled. What is the law concerning this?—E. F. P.

The mail routes and the duties of the mail carriers are entirely matters of post office control. The only remedy is through the assistant postmaster-general having that matter in charge, and he is moved only by considerations of general convenience, the facilities of the postal service, and the general demand in the community. See the local postmaster.—J. R. R.

HUNGARIAN HAY FOR SHEEP.

Is Hungarian hay good for sheep? I have some Hungarian hay and alfalfa hay, and corn fodder. If these three kinds of feed can be fed daily, will my sheep need any grain this winter.—J.

If Hungarian hay was not allowed to get too ripe before it was cut, it is good feed for any kind of live stock. Some people leave it until the seed is well formed before they cut it, and if fed in too large quantities it acts as a diarrhetic. If this plant, however, is cut when it is in bloom or before the seeds are ripe and well cured, it can be fed to any kind of stock and they like it.

My advice would be to manage to feed sheep roughage three times a day and you can feed some of the alfalfa, corn fodder and Hungarian hay each day or, if you only feed twice a day, you can feed alfalfa once a day, and one day feed corn fodder and the next day feed the Hungarian grass. Possibly you may have to use a little judgment in feeding as they may want so much alfalfa, preferring it to the corn fodder that they will eat very little of the corn fodder.

It is always better to feed some grain in connection with roughage to any kind of stock and it is just as economical as it is to try to get them through on roughage alone because, if you do not feed grain you must feed more roughage. My advice would be to feed oats and bran mixed, equal parts, and feed about three or four pounds of grain daily per one thousand pounds live weight of sheep for sheep that you are just wintering

through. Of course, if sheep were fattening sheep, I would have a different ration.—C. C. L.

SOY-BEANS AND COWPEAS.

I am interested in soy-beans and cowpeas for building up the soil. Can you tell me which is the earliest soy-bean and cowpea and where would I be able to purchase seed?—C. H. W.

The Ogemaw is the earliest maturing variety of soy-beans, but due to its very early maturity is not so high a yielder as some of the medium early maturing varieties, as the Manchu, Ito San, and Black Eyebrow. In a three-year test at the experiment station, Manchu yielded an average of 2.87 tons of air dry hay per acre, while the Ogemaw only yielded 1.14 tons per acre.

Very late maturing varieties are not adapted. The Mammoth Yellow, a late one, only yielded 1.01 tons of hay per acre in the above mentioned test.

As to seed production, the Manchu is considered one of the best yielders. Manchu seed may be secured from the seed department of the State Farm Bureau, 221 North Cedar Street, Lansing, Michigan, or from the leading seed companies in the state.—C. R. M.

ALFALFA AFTER CORN.

We propose to raise a crop of alfalfa on a small piece of ground (three acres) and we would like to have your advice on the best method to get a good catch. A crop of corn was taken off the field this fall.—H. C. G.

I do not think it advisable to plow this land at all. It can be prepared in the spring with a disk harrow and a spring-tooth harrow and make a better seed-bed than if plowed in the spring. If, however, the corn stubble prevents the preparation in this way, and the field is to be plowed, I would advise plowing it this fall so as to let it settle over the winter. Sow the field to barley or oats as early in the spring as possible and at the same time seed to alfalfa. A bushel of oats or a bushel of barley is better than more, so as not to shade the land too much. If an early drought should occur next season it would be better to cut the oats or barley for hay so as to give the alfalfa entire possession of the field. Ten or twelve pounds of alfalfa seed per acre ought to be sufficient. To insure a good stand and a continuous growth of alfalfa, you ought to lime this field, using at least a ton (and two tons would be better), of ground limestone. This ought to be spread on the surface and harrowed in. Do not plow it down. When you sow the oats or barley and the alfalfa, use 250 pounds of good commercial fertilizer.—C. C. L.

TERMS AND PROOF OF CONTRACT.

Last fall a book agent came this way taking orders for a county atlas. At that time he said they would be \$12 and upon delivery he states that they are \$15. Do I have to take the book?—W. R.

If the terms of the contract have been altered since signing it, without the approval of the party signing it, the contract is thereby made void. If the contract was signed by the party in the form it now appears, the signer could not avoid its effect by showing that he did not so understand it at the time he signed it, unless he can also show that he was induced by the fraudulent acts of representations of the opposite party or his agent, to sign it as written, or by representing it to be different than it was. If there was such fraud the contract may be avoided by the defrauded party for that reason.—J. R. R.

Dr. LeGear says:

"Right now is when you should get your stock ready for the rigors of a long, hard winter."

"If you want your stock to 'come through the winter' in fine shape, it is time now to begin toning up their digestive systems and building up their bodily vigor to withstand the bad effects of cold weather, barn confinement and lack of pasturage."

DR. LE GEAR'S STOCK POWDERS contain exactly the tonics, laxatives and blood purifiers needed to keep your stock in vigorous health, and counteract these winter conditions. Use it regularly and get more milk from your cows, more energy from your horses and better results from all your stock.

Pre-war prices. Packages now 25c, 50c, \$1.00; pails, \$2.50; drums, \$8.50 (except Rocky Mountain States and West).

MY POSITIVE GUARANTEE

Get any of my remedies from your dealer. Test them thoroughly. If you're not satisfied, I have authorized the dealer to refund your money.—Dr. L. D. LeGear, V. S.

Dr. L. D. LeGear Medicine Co., St. Louis



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FARMERS WANT CROP THEFT INSURANCE.

FARMERS in Oceana county about Hart are manifesting no little interest in some kind of crop theft insurance. They have asked insurance agents to supply them with this kind of protection but as yet no policy of this kind has been issued. Farmers say there is a pronounced need for this insurance, as only recently an auto truck drove up to the farm of L. S. Platt, loaded in fifty bushels of potatoes and went away so quietly as not to even disturb the owner or leave the slightest clew to the identity of the thieves.—R.

LIKES SOY-BEANS.

AFTER two years of raising soybeans, I can't understand why there are so few farmers raising them. I don't know of a better crop to sow if your meadows fall then soybeans, considering the good they do to the soil by increasing nitrogen in same. Off two acres of ground (not good ground) we raised eight loads of feed, threshed enough beans to keep some for next season, fed balance to milch cows with better results than we could ever expect from millet.

We sow it about the middle of June after potato crop, planting in rows twenty-eight inches apart, with a grain drill, and about three pecks to an acre. The second year on the same piece of ground the roots were full of nodules the size of a marble.—A. ZIMMERMAN, Osceola County.

BACK TO THE LAND.

MICHIGAN agriculture, after suffering many setbacks during the reconstruction period following the war, when many of its best farmers were drawn to the factories in the cities, now appears to be well on the road to recovery. The real estate market is the usual barometer to reflect such transitions and in western Michigan there are distinct signs that the back-to-the-farm movement is getting under motion.

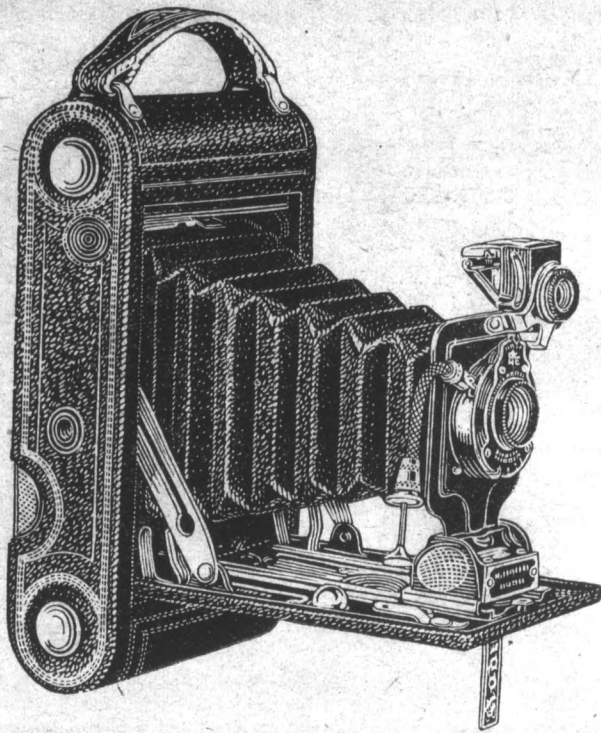
Inquiry for farm lands in western and northern Michigan is setting a record, according to the Western Michigan Development Bureau, which has received communications from more than seven hundred persons in the last three months, who are seeking farms from small developed tracts to large undeveloped ranches of three thousand or more acres.

Many of these inquiries are coming from men who left the farm a few years ago to work in the factories. Since the industrial depression set in, their eyes have been turned back to the soil and the desire to again enjoy its freedom and independence has prompted them to seek cheap but fertile farming lands.—R.

CERTIFIED SEED POTATOES FOR SALE.

APPROXIMATELY 90,000 bushels of Michigan certified potatoes, for sale by members of the Michigan Potato Producers' Association, are being readily disposed of in Pennsylvania and other neighboring states. Although ninety per cent is of the Late Petoskey (Russet Rural) variety, some of the certified stock is Green Mountain, Sir Walter Raleigh and Irish Cobbler. Late Petoskey, which originated in Michigan, has proved so popular that in the lower peninsula it has assumed a commanding place in production.

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Even the novice can get good pictures with the No. 1 Junior from the first, so easy it is to work. Plenty of room for it in the pocket.

The No. 1 Kodak Junior makes pictures $2\frac{1}{4} \times 3\frac{1}{4}$ inches, has carefully tested lens and shutter with adjustable speeds of $1/25$ and $1/50$ of a second, as well as time and bulb action, and is autographic—you can write it on the film at the time.

At your dealer's.

Eastman Kodak Company, Rochester, N. Y., The Kodak City

Western Canada Offers Health and Wealth



and has brought contentment and happiness to thousands of home seekers and their families who have settled on her FREE homesteads or bought land at attractive prices. They have established their own homes and secured prosperity and independence.

In the great grain-growing sections of the prairie provinces there is still to be had on easy terms **Fertile Land at \$15 to \$30 an Acre**—land similar to that which through many years has yielded from 20 to 45 bushels of wheat to the acre—oats, barley and flax also in great abundance, while raising horses, cattle, sheep and hogs is equally profitable. Hundreds of farmers in Western Canada have raised crops in a single season worth more than the whole cost of their land. Healthful climate, good neighbors, churches, schools, rural telephone, excellent markets and shipping facilities. The climate and soil offer inducements for almost every branch of agriculture. The advantages for

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make a tremendous appeal to industrious settlers wishing to improve their circumstances. For illustrated literature, maps, description of farm opportunities in Manitoba, Saskatchewan, Alberta and British Columbia, reduced railway rates, etc., write

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COMMITTEE PLANS FOR MICHIGAN SOIL SURVEY.

THAT the proposed soil survey of Michigan be broadened so as to include information concerning climatic, drainage, topography and cropping condition, in order to "open Michigan's idle acres to the settler at a profit to him and to the state," was recommended in the report presented this week by the subcommittee headed by J. A. Doelle, of the State Department of Agriculture, to the survey congress, of which L. Whitney Watkins is chairman.

The report suggests that the State Department of Agriculture be empowered to undertake the survey, in turn placing its direction "with the agent which is determined most fitted by breadth of vision, accumulated applicable information and trained operatives." It refers to the survey act passed by the legislature in 1917 and favors consideration of the plans made at that time.

Lands will be classified as (1) agricultural; (2) non-agricultural; (3) grazing; (4) forests; (5) fur farms; (6) swamps capable of reclamation for agricultural or industrial purposes, and (7) marl.

The agricultural sections are to be considered further as to their present cover, cost of clearing where necessary, special crops and a comparison with lands of similar character in the same latitude in other parts of the state. The comparison will include a consideration of good and bad soil management on similar types of soil.

"Keeping in mind that the ultimate utilization of the soil survey is to aid the farmer to understand not only the soil types and their crop producing value," says the report, "but also the type of cropping and management adapted to the facts of climate and soil which the survey is to ascertain, it is proposed that permanent crop and fertilizer demonstration plats be established on the soil types in various latitudes of the state. It should be planned to build up the agricultural tradition of the section by keeping accurate record of the climatic factors, the yields and the costs of crops grown on these plats, so that the settler may have access to these records and to the type of cropping best adapted to the region in which he contemplates making his home."

"All the forces of the University of Michigan, Michigan Agricultural College, State Department of Agriculture and the State Department of Conservation should be marshalled to the conduct of this survey to best serve the agriculturist, the forester, the reclamationist and the conservationist and get Michigan's idle acres producing for the state as rapidly as possible."

Members of the committee besides Mr. Doelle are Prof. M. M. McCool, department of soils, M. A. C.; Prof. A. K. Chittenden, forestry department, M. A. C.; R. A. Smith, state geologist; Dr. C. O. Sauer, department of geography, University of Michigan.

KILL QUACK GRASS IN SPRING.

(Continued from page 427).

root stalks were dead, leaving only tender sprouts that seemed easy to destroy. It has also surprised me that wherever I dug these patches in the spring, that they were entirely destroyed, though it did not seem possible that I had gotten every root. It seems, therefore, that this must be the plant's most vulnerable time. The vitality of the root-stalk is at its lowest, after going through the winter, and it then makes a rapid growth, storing up food and moisture against the farmer's cultivator and hoe and the summer drouth until it is nearly invincible; and we must destroy the plant if at all, before this new growth takes place.—E. S. HARRISON, Van Buren County.

Implement Prices Down

OUR 1922 reduced prices on farm machines have just been issued and are effective immediately. They apply on practically our entire line of International Harvester grain, hay, and corn harvesting machines, plows, tillage implements, seeding machines, etc.

In determining these prices, the Company has made a careful study of market and labor conditions and has based the price reductions on the lowest possible raw material and production costs that can, under most favorable conditions, be forecast for the season of 1922.

At the new prices, a grain binder can be bought for \$50 to \$60 less than the price of Jan. 1st, 1921; and other reductions are in proportion.

At these prices no farmer can afford to postpone the purchase of needed machines, especially if his present equipment will not stand up under the work of another planting and harvest.

An old corn planter may crack enough kernels and miss enough hills to make its use mighty expensive. A new planter will save much of its cost the first season. The same is true of a drill. Your old binder may lose grain enough in one

harvest to make a substantial payment on a new machine. The new machine will go on for many years, saving a large amount for you each year.

Economy consists not in getting along with worn-out machines but in farming with efficient machines.

You will of course continue with that part of your present equipment which is in good order and satisfactory. But it is good judgment now as always to abandon those machines which are really worn-out. Where repairs have been made again and again, beyond the point of serviceability, waste and loss are pretty sure to follow. Present prices will enable you to replace the old with efficient, modern machines. As Mr. J. R. Howard, President of the American Farm Bureau Federation, has said, "The farmer who needs additional machinery and equipment pays for it whether he buys it or not."

If you are at present interested in learning some of the new prices, or in looking over any individual machine, the International Dealer in your vicinity is at your service.

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BURNS COBS, ALSO WOOD
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No ice to chop. No chilled stomachs. Stock drink more—gain faster. Heater soon pays for itself in greater gains and bigger milk yield. Write for free catalog today.

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EMPIRE NON-FREEZABLE HOG WATERER

Heavy galvanized iron—70 gal. capacity. Oil burner directly under trough—guaranteed not to freeze. Keeps water warm at a small cost. Keeps hogs healthy—fatten faster on the same feed.

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\$2.25 Box guaranteed to give satisfaction or money back. \$1.10 Box Sufficient for ordinary cases.

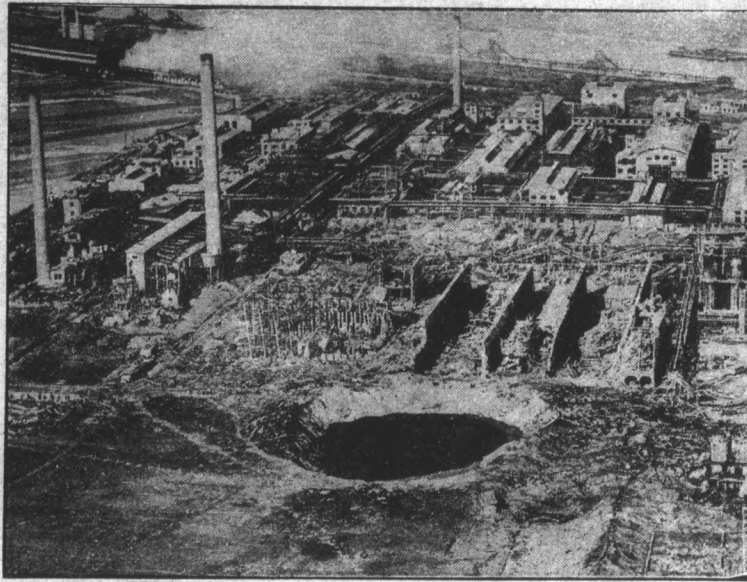
MINERAL REMEDY CO. 463 Fourth Ave., Pittsburgh, Pa.

Mention The Michigan Farmer When Writing Advertisers

WORLD EVENTS IN PICTURES



Part of the reducing squad at the New York Health Show.



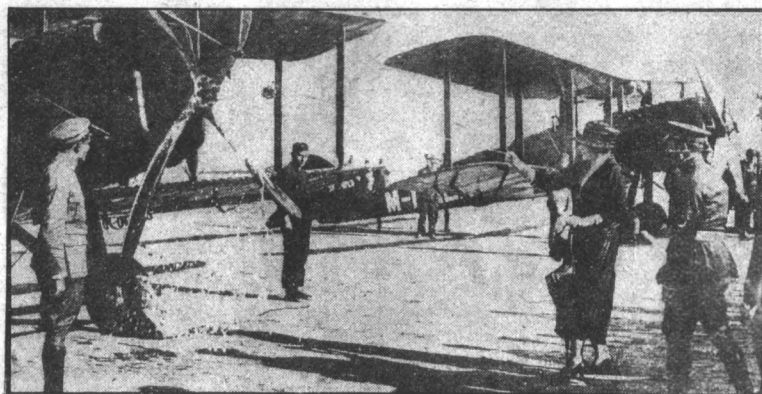
An airplane view of the wreckage caused by the explosion at the Aniline Dye Works in Oppau, Germany.



Pedigreed chicks are tagged at "birth" for accuracy.



A family with its worldly possessions in famine-stricken Russia in despair because of no home or food.



In Spain they are still allowed champagne for christening airplanes. The airplanes are for use in the Morocco war.



Mr. and Mrs. Douglas Fairbanks, and "Ma" Pickford in Paris.



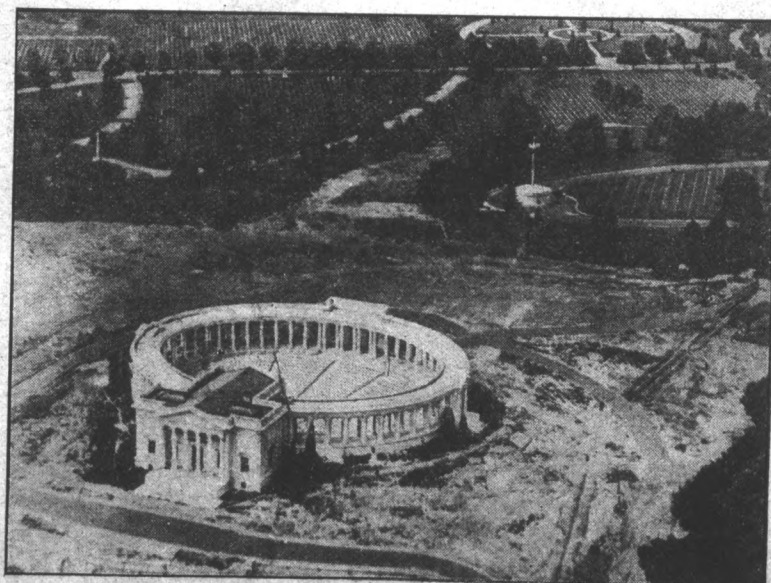
Roger Kiley, famous foot-ball end, ready for the game.



An emergency ambulance used in London for wounded dogs.



Society people watch the annual fall tennis tournament at Hot Springs, Va., which opens the season there.



An aerial view of the Arlington Cemetery where "The Unknown Soldiers of America" will be buried.

THE BLIND MAN'S EYES

By William MacHarg and Edwin Balmer

Copyright by Little Brown & Company

Eaton, refilling his cigar-case to give his action a look of casualness, got up and went toward the rear of the train. A porter was still posted at the door of the Santoine car, who warned him to be quiet in passing through. The car, he found, was entirely empty; the door to the drawing-room where Santoine lay was closed. Two berths near the farther end of the car had been made up, no doubt for the surgeon and Harriet Santoine to rest there during the intervals of their watching; but the curtains of these berths were folded back, showing both of them to be empty, though one apparently had been occupied. Was Harriet Santoine with her father?

He went on into the observation car. The card-room was filled with players, and he stood an instant at the door looking them over, but "Hillward" was not among them, and he saw no one whom he felt could possibly be one of "them." In the observation-room, the case was the same; a few men and women passengers here were reading or talking. Glancing on past them through the glass door at the end of the car, he saw Harriet Santoine standing alone on the observation platform. The girl did not see him; her back was toward the car. As he went out onto the platform and the sound of the closing door came to her, she turned to meet him.

She looked white and tired, and faint gray shadows underneath her eyes showed where dark circles were beginning to form.

"I am supposed to be resting," she explained quietly, accepting him as one who had the right to ask.

"Have you been watching all day?"

"With Dr. Sinclair, yes. Dr. Sinclair is going to take half the night watch, and I am going to take the other half. That is why I am supposed to be lying down now to get ready for it; but I could not sleep."

"How is your father?"

"Just the same; there may be no change, Dr. Sinclair says, for days. It seems all so sudden and so—terrible, Mr. Eaton. You can hardly appreciate how we feel about it without knowing Father. He was so good, so strong, so brave, so independent! And at the same time so—so dependent upon those around him, because of his blindness! He started out so handicapped, and he has accomplished so much, and—and it is so unjust that there should have been such an attack upon him."

Eaton, leaning against the rail beside her and glancing at her, saw that her lashes were wet, and his eyes dropped as they caught hers.

"They have been investigating the attack?"

"Yes; Donald—Mr. Avery, you know—and the conductor have been working on it all day."

"What have they learned?"

"Not much, I think; at least not much that they have told me. They have been questioning the porter."

"The porter?"

"Oh, I don't mean that they think the porter had anything to do with it; but the bell rang, you know."

"The bell?"

"The bell from father's berth. I thought you knew. It rang some time before father was found—some few minutes before; the porter did not hear it, but the pointer was turned down. They had tested it, and it cannot be jarred down or turned in any way except by means of the bell."

Then he saw that she had not noticed, for she had not been looking at him.

"It could be carried in that way through the sleepers, you know, without attracting attention," she observed.

Eaton had controlled himself. "A sock!" he said again, reflectively.

He felt suddenly a rough tap upon his shoulder, and turning, he saw that Donald Avery had come out upon the platform and was standing beside him; and behind Avery, he saw Conductor Connery. There was no one else on the platform.

"Will you tell me, Mr. Eaton—or



Eaton looked away from her, then back again rather strangely.

"Father could not have rung it; Dr. Sinclair says that is impossible. So its being rung shows that some one was at the berth, some one must have seen father lying there and—and rung the bell, but did not tell any one about father. That could hardly have been an innocent person, Mr. Eaton."

"Or a guilty one, Miss Santoine, or he would not have rung the bell at all."

"I don't know—I don't understand all it might mean. I have tried not to think about anything but father."

"Is that all they have learned?"

"No; they have found the weapon."

"The weapon with which your father was struck?"

"Yes; the man who did it seems not to have realized that the train was stopped—or at least that it would be stopped for so long—and he threw it off the train, thinking, I suppose, we should be miles away from there by morning. But the train didn't move, and the snow didn't cover it up, and it was found lying against the snow-bank this afternoon. It corresponds Dr. Sinclair says, with father's injuries."

"What was it?"

"It seems to have been a bar of metal—of steel, they said, I think, Mr. Eaton—wrapped in a man's black sock."

"A sock!" Eaton's voice sounded strange to himself; he felt that the blood had left his cheeks, leaving him pale, and that the girl must notice it.

"A man's sock!"

whatever else your name may be—what it is that you have been asking Miss Santoine?" Avery demanded harshly.

Eaton felt his blood surge at the tone. Harriet Santoine had turned, and sensing the strangeness of Avery's manner, she whitened. "What is it, Don?" she cried. "What is the matter? Is something wrong with father?"

"No, dear, no! Harry, what has this man been saying to you?"

"Mr. Eaton?" Her gaze went wonderingly from Avery to Eaton and back again. "Why—why, Don! He has only been asking me what we had found out about the attack on father!"

"And you told him?" Avery swung toward Eaton. "You dog!" he mouthed. "Harriet, he asked you that because he needed to know—he had to know! He had to know how much we had found out, how near we were getting to him! Harry, this is the man that did it!"

Eaton's fists clenched; but suddenly, recollecting, he checked himself. Harriet, not yet comprehending, stood staring at the two; then Eaton saw the blood rush to her face and dye forehead and cheek and neck as she understood.

"Not here, Mr. Avery; not here!"

Conductor Connery had stepped forward, glancing back into the car to assure himself the disturbance on the platform had not attracted the attention of the passengers in the observation-room. He put his hand on Eaton's arm. "Come with me, sir," he commanded.

Eaton thought anxiously for a mo-

ment. He looked to Harriet Santoine as though about to say something to her, but he did not speak; instead, he quietly followed the conductor. As they passed through the observation car into the car ahead, he heard the footsteps of Harriet Santoine and Avery close behind them.

CHAPTER IX.

Questions.

CONNERY pulled aside the curtain of the washroom at the end of the Santoine car the end furthest from the drawing-room where Santoine lay—

"Step in here, sir," he directed. "Sit down, if you want. We're far enough from the drawing-room not to disturb Mr. Santoine."

Eaton, seating himself in the corner of the leather seat built against two walls of the room, and looking up, saw that Avery had come into the room with them. The girl followed. With her entrance into the room came to him—not any sound from her or anything which he could describe to himself as either audible or visual—but a strange sensation exhausted his breath and stopped his pulse for a beat. To be accused—even to be suspected—of the crime against Santoine was to have attention brought to him which—with his unsatisfactory account of himself—threatened ugly complications. Yet, at this moment of realization, that did not fill his mind. Whether his long dwelling close to death had numbed him to his own danger, however much more immediate it had become, he could not know; probably he had prepared himself so thoroughly, had innured himself so to expect arrest and imminent destruction, that now his finding himself confronted with accusers in itself failed to stir new sensation; but till this day, he had never imagined or been able to prepare himself for accusation before one like Harriet Santoine; so, for a moment, thought solely of himself was a subcurrent. Of his conscious feelings, the terror that she would be brought to believe with the others that he had struck the blow against her father was the most poignant.

Harriet Santoine was not looking at him; but as she stood by the door, she was gazing intently at Avery; and she spoke first:

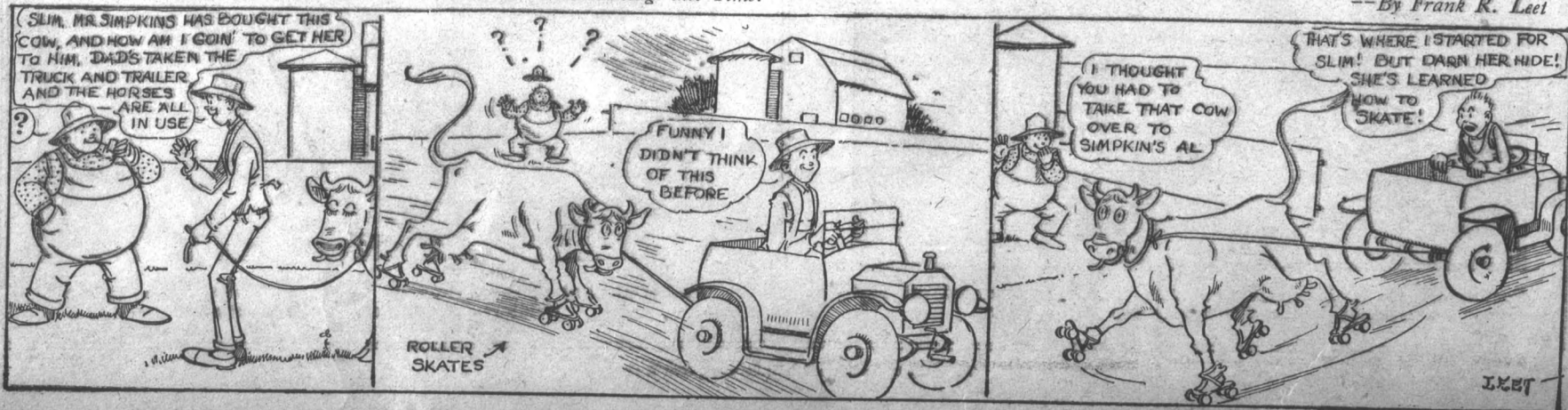
"I don't believe it, Don!"

Eaton felt the warm blood flooding his face and his heart throb with gratitude toward her.

"You don't believe it because you don't understand yet, dear," Avery declared. "We are going to make you believe it by proving to you it is true."

Avery pulled forward one of the leather chairs for her to seat herself and set another for himself facing Eaton. Eaton, gazing across steadily at

AL ACRES—Al's Inventive Genius Works to His Disadvantage this Time.



--By Frank R. Leet

Avery, was chilled and terrified as he now fully realized for the first time the element which Avery's presence added. What the relations were between Harriet Santoine and Avery he did not know, but clearly they were very close; and it was equally clear that Avery had noticed and disliked the growing friendship between her and Eaton. Eaton sensed now with a certainty that left no doubt in his own mind that as he himself had realized only a moment before that his strongest feeling was the desire to clear himself before Harriet Santoine, so Avery now was realizing that—since some one on the train had certainly made the attack on Santoine—he hoped he could prove before her that that person was Eaton.

"Why did you ring the bell in Mr. Santoine's berth?" Avery directed the attack upon him suddenly.

"To call help," Eaton answered.

Question and answer, Eaton realized, had made some effect upon Harriet Santoine, as he did not doubt Avery intended they should; yet he could not look toward her to learn exactly what this effect was but kept his eyes on Avery.

"You had known, then, that he needed help?"

"I knew it—saw it then, of course."

"When?"

"When I found him."

"Found him?"

"Yes."

"When was that?"

"When I went forward to look for the conductor to ask him about taking a walk on the roof of the cars."

"You found him then—that way, the way he was?"

"That way? Yes."

"How?"

"How?" Eaton iterated.

"Yes; how, Mr. Eaton, or Hillward, or whatever your name is? How did you find him? The curtains were open, perhaps; you saw him as you went by, eh?"

Eaton shook his head. "No; the curtains weren't open; they were closed."

"Then why did you look in?"

"I saw his hand in the aisle."

"Go on."

"When I came back it didn't look right to me; its position had not been changed at all, and it hadn't looked right to me before. So I stopped and touched it, and I found that it was cold."

"Then you looked into the berth?"

"Yes."

"And having looked in and seen Mr. Santoine injured and lying as he was, you did not call any one, you did not bring help—you merely leaned across him and pushed the bell and went on quickly out of the car before any one could see you?"

"Yes; but I waited on the platform of the next car to see that help did come; and the conductor passed me, and I knew that he and the porter must find Mr. Santoine as they did."

"Do you expect us to believe that very peculiar action of yours was the act of an innocent man?"

"If I had been guilty of the attack on Mr. Santoine, I'd not have stopped or looked into the berth at all."

"If you are innocent, you had, of course, some reason for acting as you did. Will you explain what it was?"

"No, I cannot explain."

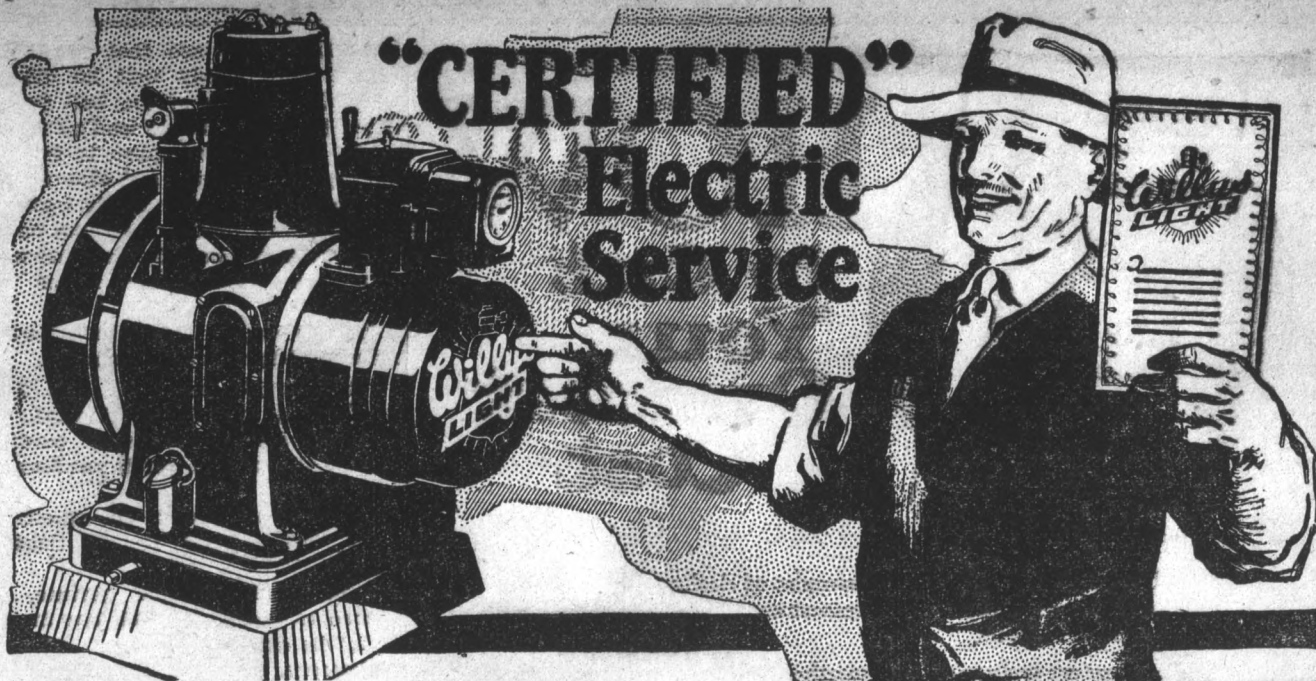
With a look almost of triumph Avery turned to Harriet Santoine, and Eaton felt his flesh grow warm with gratitude again as he saw her meet Avery's look with no appearance of being convinced.

"Mr. Eaton spoke to me about that," she said quietly.

"You mean he told you he was the one who rang the bell?"

"No; he told me we must not attach too much importance to the ringing of the bell in inquiring into the attack on father."

Avery smiled grimly. "He did, did



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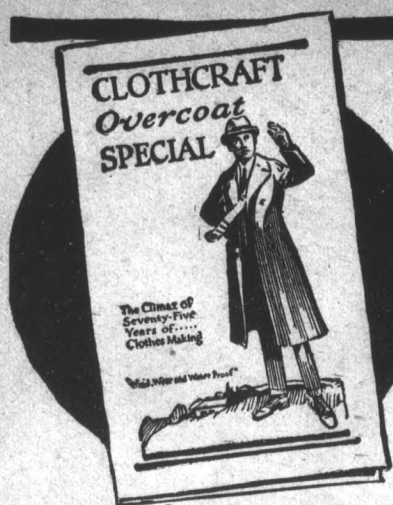
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he? Don't you see that that only shows more surely that he did not want the ringing of the bell investigated because it would lead us to himself? He did not happen to tell you, did he, that the kind and size of socks he wears and carries in his traveling-bag are very nearly the same as the black sock in which the bar was wrapped with which your father was struck?"

"It was you, then, who took the sock from my bag?" Eaton demanded.

"It was the conductor, and I can assure you, Mr. Eaton-Hillward, that we are preserving it very carefully along with the one which was found in the snow."

"But the socks were not exactly the same, were they?" Harriet Santoine asked.

Avery made a vexed gesture, and turned to Connery. "Tell her the rest of it," he directed.

Connery, who had remained standing back of the two chairs, moved slightly forward. His responsibility in connection with the crime that had been carried out on his train weighed heavily on the conductor; he was worn and nervous.

"Where shall I begin?" he asked of Avery; he was looking not at the girl but at Eaton.

"At the beginning," Avery directed.

"Mr. Eaton, when you came to this train, the gateman at Seattle called my attention to you," Connery began. "I didn't attach enough importance, I see now, to what he said; I ought to have watched you closer and from the first. Old Sammy has recognized men with criminal records time and time again. He's got seven rewards for it."

Eaton felt his pulses close with a shock. "He recognized me?" he asked quietly.

"No, he didn't; he couldn't place you," Connery granted. "He couldn't tell whether you were somebody that was 'wanted' or some one well known—some one famous, maybe; but I ought to have kept my eye on you because of that, from the very start. Now this morning you claim a telegram meant for another man—a man named Hillward, on this train, who seems to be all right—that is, by his answers and his account of himself he seems to be exactly what he claims to be."

"Did he read the telegram to you?" Eaton asked. "It was in code. If it was meant for him, he ought to be able to read it."

"No, he didn't. Will you?"

Eaton halted while he recalled the exact wording of the message. "No."

Connery also paused.

"Is this all you have against me?" Eaton asked.

"No; it's not. Mr. Avery's already told you the next thing, and you've admitted it. But we'd already been able by questioning the porter of this car and the ones in front and back of it to narrow down the time of the ringing of Mr. Santoine's bell not to quarter-hours but to minutes; and to find out that during those few minutes you were the only one who passed through the car. So there's no use of my going into that." Connery paused and looked to Avery and the girl. "You'll wait a minute, Mr. Avery; and you, Miss Santoine. I won't be long."

He left the washroom, and the sound of the closing of a door which came to Eaton a half-minute later told that he had gone out the front end of the car.

As the three sat waiting in the washroom, no one spoke. Eaton, looking past Avery, gazed out the window at the bank of snow. Eaton understood fully that the manner in which the evidence against him was being presented to him was not with any expectation that he could defend himself; Avery and Connery were obviously too certain of their conclusion for that; rather, as it was being given thus un-

der Avery's direction, it was for the effect upon Harriet Santoine and to convince her fully. But Eaton had understood this from the first. It was for this reason he had not attempted to deny having rung Santoine's bell, realizing that if he denied it and it afterwards was proved, he would appear in a worse light than by his inability to account for or assign a reason for his act. And he had proved right in this; for the girl had not been convinced. So now he comprehended that something far more convincing and more important was to come; but what that could be, he could not guess.

As he glanced at her, he saw her sitting with hands clasped in her lap, pale, and merely waiting. Avery, as though impatient, had got up and gone to the door, where he could look out into the passage. From time to time people had passed through the car, but no one had stopped at the washroom door or looked in; the voices in the washroom had not been raised, and even if what was going on there could have attracted momentary attention, the instructions to pass quickly through the car would have prevented any one from stopping to gratify his curiosity. Eaton's heart-beat quickened as, listening, he heard the car door open and close again and footsteps, coming to them along the aisle, which he recognized as those of Conductor Connery and some one else with him.

Avery returned to his seat, as the conductor appeared in the door of the washroom followed by the Englishman from Eaton's car, Henry Standish. Connery carried the sheet on which he had written the questions he had asked Eaton, and Eaton's answers.

"What name were you using, Mr. Eaton, when you came from Asia to the United States?" the conductor demanded.

"Eaton reflected, 'My own,' he said. 'Philip D. Eaton.'"

Connery brought the paper nearer to the light of the window, running his finger down it till he found the note he wanted. "When I asked this afternoon where you came from in Asia, Mr. Eaton, you answered me something like this: You said you could give me no address abroad; you had been traveling most of the time; you could not be placed by inquiring at any city or hotel; you came to Seattle by the Asiatic steamer and took this train. That was your reply, was it not?"

"Yes," Eaton answered. "The 'Asiatic steamer'—the Tamba Maru that was, Mr. Eaton."

Eaton looked up quickly and was about to speak; but from Connery his gaze shifted swiftly to the Englishman and checking himself, he said nothing.

"Mr. Standish,"—Connery faced the Englishman—"you came from Yokohama to Seattle on the Tamba Maru, didn't you?"

"I did, yes."

"Do you remember this Mr. Eaton among the passengers?"

"No."

"Do you know he was not among the passengers?"

"Yes, I do."

"How do you know?"

The Englishman took a folded paper from his pocket, opened it and handed it to the conductor. Connery, taking it, held it out to Eaton.

(Continued next week.)

FOR PERSONAL USE ONLY.

A small boy who was sitting next to a very haughty woman in a crowded car, kept sniffing in a most annoying way, until the woman could stand it no longer.

"Boy, have you got a handkerchief?" she demanded.

The small boy looked at her for a few seconds and then, in a dignified tone, came the answer:

"Yes, I 'ave, but I don't lend it to strangers."

COUNTRY SCHOOL TEXT BOOKS
SHOULD BE RURALIZED.

AT the risk of raising a storm I am going to suggest a new departure in the compilation of text books for rural schools. At the present time these books are very often prepared jointly by two or more people—invariably city educators. I am fully aware that one isn't likely to find sufficiently well-educated persons elsewhere because all the large schools are in cities or large towns, but the idea is fundamentally wrong nevertheless. It is a fact often ignored, too, that there are some highly educated people in rural sections; they are not in the limelight as the city people are, hence we forget them.

I have taught rural schools for more than nine years and I know that when a healthy, normal boy or girl out here reads in the physiology lesson that "the muscles should be exercised and relaxed gradually; after doing hard work like cutting wood, one should not sit down to rest at once but should continue the muscular action for a time by some moderate labor." "Rest is essential at frequent intervals," etc., the long hard days to which every farmer is accustomed are involuntarily recalled and the pupil directly loses respect for that book. Why? Not because it is scientifically in error, but because it illustrates so glaringly the author's lack of comprehension of country environs.

Another apt illustration of my point is furnished by the grade library book describing maple sugar making and showing a picture of men so employed in a maple grove in full foliage! Don't imagine the children will fail to notice such discrepancies—they observe them more quickly than I do. The first thing I ever knew of this instance, some of my small children were looking at the pictures and they began to exclaim in high glee, "O, see! What sort of sugar are they making after the trees are all leaved out?" Would not those pupils have gained infinitely more from that book if some intelligent farmer could have acted as advisory council for the teachers who wrote it? Of what use is the most excellent education, so fermented with ignorance of the common things the child has always known, that he doesn't believe the statements that are perfectly correct? Would my classes in arithmetic have great confidence in the things I might teach them about ratio, proportion, or cube root, even though I might know these things perfectly, if they found that I didn't know my table of 4's?

I have often had occasion to regret sincerely that these faults exist in so many modern text books, because when a child loses interest in an otherwise perfectly satisfactory text; for him, it is spoiled. It would seem that so serious a failing, that could so easily be eliminated most certainly should be. If, in some secluded section, a highly educated person could be found who was eminently qualified to edit text books, but who had never seen a city and would be like the old lady who stood on the depot platform while her train pulled out and left her, because she "thought the whole thing went," would such a person be allowed to prepare texts for use in city schools? Hardly! Why, then, should country boys and girls be condemned to study books that told only of city environments? Might not some country people help very materially in solving the problem?—MRS. E. M. ANDERSON.

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Colonel Cobb, our famous corn grower, is shelling out money to give his daughter music lessons. Folks say Maize Cobb has a good ear for music but her voice is husky so she is learning to play the cornet.



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Our Boys' and Girls' Page

My Club Experiences

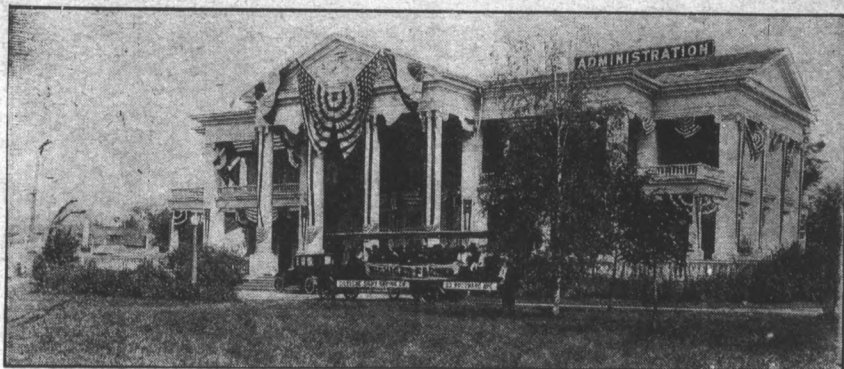
By Beatrice Fanson

IN December, 1920, one of the young women in our community organized a garment-making club. There were six of us girls and we called ourselves the "Busy Bees."

We met at one of our homes or at the home of our leader every Wednesday afternoon. Our club meetings were divided into three periods, namely: Business, sewing and recreation periods.

In March we gave a St. Patrick's social which netted us a good profit besides enlisting the aid and cooperation of people in the community who had previously been disinterested in

were fifty-eight boys and girls, with their leaders, all club workers, who shared this splendid opportunity to see Michigan's largest city. We saw many beautiful buildings and places, including the Ford, Hudson, Packard and Dodge automobile factories, Detroit City Library, several of the main school buildings, and many beautiful parks, besides spending a few minutes at the aquarium on Belle Isle. A call at Vernor's for a treat from the Michigan Farmer people, and last, but not least, a trip through the Michigan Farmer plant, listening to splendid talks from both Mr. Wermuth and Mr.



Nearly Sixty Club Members were Our Guests on a Sight-seeing Trip.

our work. We placed our aprons, which were the only garments we had completed at that time, on exhibit with our reports and stories of "How I Made My Apron."

Shortly after this, the county champions in several projects were chosen, the writer being the fortunate one in garment-making in Ingham county.

A little later we were very happily surprised by an invitation from the Boys' and Girls' Club department at the agricultural college to attend the State Fair for two days as a demonstrating team, with all traveling expenses paid. One day was to be given to demonstration, the other to visit the exhibits.

We demonstrated in the forenoon as we had planned, but in the afternoon we were invited by the Michigan Farmer people to go on a sight-seeing trip around Detroit and Belle Isle. There

Wilken made our trip still more interesting.

From thence we wended our way back to the fair grounds, tired but joyous, after our thirty-two-mile drive, during which we had seen so many things that were new and wonderful to our rustic eyes.

The following morning we spent around the fair grounds visiting the many splendid exhibits, and in the late afternoon boarded the train for home, feeling very thankful that we had put forth the effort, during the few months that it took to complete our project, which had earned for us such an educational trip.

Miss Fanson's little story above won first prize in the Michigan Farmer contest for club members who visited the State Fair.—Eds.

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Fastest cutting Log Saw. 810 strokes a minute. Light weight. Most powerful. Easy to move from cut to cut and log to log. Friction clutch controls saw blade while motor runs. Saws any size log into any lengths. When not sawing use as portable engine for pumping, grinding, other power jobs. Read this: "My Log Saw is a marvel. All the neighbors hardly realize it can do the work of 10 men with cross cut saws."—B. Kelsey, Farmersville, O.
Tree Saw falls trees; Limb Saw cuts branches. Other Saw Rigs and farm and shop engines from 14 to 22 H. P. Log Saws shipped promptly from 1 of 5 warehouses nearest you. 30-Day Trial. Cash or Easy payments. WRITE FOR FREE BOOK TODAY.
Now Selling at New Low Price. LIBERAL 10-YEAR GUARANTEE.
One Man Log Saw
App. for. 1509A Wood St. OTTAWA MFG. CO., Ottawa, Kansas.

RHODES DOUBLE OUT PRUNING SHEAR
Cuts from both sides of limb and does not bruise the bark.
Made in all Styles and Sizes. All shears delivered free to your door. Send for circular and prices.
RHODES MFG. CO.
305 S. Division Ave. GRAND RAPIDS, MICH.

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Get It From the Factory Direct
PRICES AGAIN REDUCED. We Pay the Freight and save you money. Direct from Factory to Farm. Laura Struensee, Holden, Mo. writes: "The fence ordered of you arrived O.K. I saved \$14.00 on a \$34.00 order. You can't afford to buy fence until you get our Big Free Catalog showing 100 styles and heights of farm and lawn fence, gates, etc. Write today. KITSELMAN BROS. Dept. 278 Muncie, Indiana."

Our Scientific Method will stop that **STAMMER**
Send for free 200 page book. It tells how to permanently stop stammering or stuttering in a few weeks' time. A natural guaranteed method. The Lewis School for Stammerers 152 Lewis Bldg., 71-77 Adelaide St., Detroit, Mich.

Free Catalog in colors explains money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.
Electric Wheel Co. 35 Elm St., Quincy, Ill.

Genuine



Aspirin

Always say "Bayer"

Unless you see the name "Bayer" on tablets, you are not getting genuine Aspirin prescribed by physicians for 12 years and proved safe by millions. Directions in package.

Aspirin is the trade mark of Bayer Manufacture of Monoaceticacidester of Salicylicacid

FOG, DRIZZLE or DELUGE What matter? Inside a **FISH BRAND REFLEX SLICKER** \$4.50
you're always dry and happy. A.J. Tower Co. BOSTON
TOWER'S FISH BRAND

Young Folks' Accomplishments

ONE OF THE CORN BOYS.

AS a result of the quality of the tenear exhibit of corn he displayed at the Eaton County Fair this fall, Burlynn Bradley, of Potterville, is one of the few boys in the state asked to select fifty ears of corn to be sent to the Southeast States Fair at Atlanta, Ga., and the International Hay and Grain Show to be held in conjunction with the International Live Stock Exposition at Chicago.

CHESANING YOUNGSTERS RUN FARM.

RUTH BADGLEY, who was ten years old on August 9, and her brother, Leslie Badgley, who is fourteen, are considered among the banner farmer workers in Michigan this year, by the people in and near Chesaning, in Saginaw county. They live on the old Badgley farm, south of town, with their parents, Mr. and Mrs. Eugene Badgley, and this year they put in nearly all the season's crops with very little help. This included the rye planting last fall, and twenty acres of corn, fifteen acres of oats and one and one-half acres of beans last

spring, besides the potatoes and other minor crops.

Ruth hitches her own team, drags and rolls the fields just like any man. Their father is afflicted with blindness, having lost his sight while blowing stumps with dynamite fourteen years ago. Recently he has been taking treatment from a specialist in Milwaukee, and Ruth accompanies her father on the trips. His sight is being slowly restored.

Both children are bright in their school work and both are hustlers with their farm work. Ruth milks five cows in the morning, while Leslie does the chores and feeds the stock. He is also holder of the Carnegie medal for an act of bravery, having unassisted pulled his sister from an old well half full of water, across from their home, when he was a lad seven years old and she was only three.—M.

INDIANTOWN GARMENT-MAKING CLUB WINS CUP.

THE Indiantown garment-making club, of Saginaw county, took the silver loving cup away from the Frankemuth Club by winning first honors for its exhibit of garments at the Sag-

inaw Fair, according to announcement of Dorothy Curtis, county home demonstration agent. The Frankenmuth club, which won the cup last year, when it was offered for the first time by the fair management, was given second place this year. The Zilwaukee garment-making club won third honors in this class.—M.

ZILWAUKEE CANNING CLUB SUCCESSFUL.

THE Zilwaukee canning club added another claim to permanent ownership of a similar cup offered for exhibits of canned goods. The members repeated their success of last year and again won first place for their display. If they win first place next year they will become permanent owners of the trophy.

The Hemlock canning club won second place for their exhibits, Indian-town followed in third position, and the Springbrook club, of Maple Grove districts seven and eight, was fourth.

First honors for cooking demonstrations was won by the Hemlock cooking club; and the Hemlock second-year garment-making club won first place for sewing demonstrations.—M.

MAKE THIS YOUR CREED.

I would be true,
For there are those who trust me;
I would be pure,
For there are those who care;
I would be strong,
For there is much to suffer;
I would be brave,
For there is much to dare;
I would be friend to all—
The foe—the friendless;
I would be giving
And forget the gift;
I would be humble,
For I know my weakness;
I would look up—
And laugh—and love—and lift.

SPECIALIZING IN POULTRY.

ONE reason for failures in the specialized poultry business is the fact that it is a mass of small details. Men who can succeed in the dairy business often make a failure with poultry because they are not in the habit of watching the small details and consider some very important parts of the work as rather fussy labor which will cause no trouble if neglected.

Women sometimes succeed better with poultry than men because they are familiar with housework which is full of small details from morning to dark. They learn to pay attention to the small items and apply their tact and perseverance in housework to the management and development of their poultry flocks.

A poultry keeper has a constant fight on his hands to develop new flocks of breeding stock. The dairyman can accumulate a nice herd of cows of good producing ability and he knows that, barring unusual occurrences, he has an equipment for the dairy business good for several years. The poultry-keeper no sooner obtains a large flock of high-producing hens when they reach an age of two years and their best laying period is over and a new flock of pullets must be ready to take their place.

A hen is a small unit and it takes many of them to make a large and profitable flock. The poultry keeper without experience who starts with many birds is unable to quickly understand their management. There is so much detail to the business that it must be started on a small scale and built up as the knowledge of the breeder accumulates. It is possible to succeed with poultry as many are doing, but no prospective breeder must assume that the work is easy if he expects to master the details and succeed.—R. G. K.



"Salty" Flavor What It Tells

That uneven flavor of salt that often spoils a good dish, is due to poor salt—salt that fails to dissolve evenly because the crystals or flakes were hard and solid. Remember salt is *not* salt until it dissolves completely.

Colonial Special Farmers Salt differs from all other salts because its tiny flakes are soft, porous and quick-dissolving, whereas the flakes or granular crystals of other salts are hard, non-porous and slow-dissolving. There you have the reason for Colonial Special Farmers Salt dissolving quickly, penetrating evenly, seasoning uniformly. Scientific tests prove Colonial superiority every time.

Best for cooking, baking, butter making, table use and all farm purposes. It will not cake or lump.



Put up in 70-lb. bags of lined material—which makes splendid toweling.



Ordinary Salt

The above illustrates how slow dissolving are all other salts whether of flake or granular texture, because their flakes or grains are hard and non-porous.

Colonial Salt

In the same scientific laboratory tests. Colonial Special Farmers' Salt because of its soft, tiny, porous flakes dissolved in a fifth to a fourth of the time of most others and in $\frac{3}{4}$ the time of the next best salt.

COLONIAL SPECIAL FARMERS SALT

THE COLONIAL SALT COMPANY, AKRON, OHIO
Chicago, Ill. Buffalo, N. Y. Boston, Mass. Atlanta, Ga.

FOR STOCK SALT—USE COLONIAL BLOCK SALT

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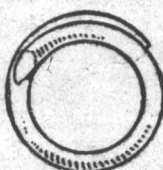
Brood
Your
Chicks

30 Days
FREE



Simplex
Brooder
Stove

Use this wonderful new Simplex Brooder Stove on your own hatch for 30 days, free. Raise 20 to 50 per cent more chicks at 1-5 the cost, 1-4 the operating expense, 1-10 the work. Small and large broods. Return it and get your money back if not delighted. Write today for free brooding book and catalog. Tells how to avoid losses and increase profits from poultry. Also details of free trial offer. Send now. **SIMPLEX BROODER STOVE COMPANY** 220B Ellsworth Ave. Grand Rapids, Mich.



Celluloid Ring Leg Bands

Med. and American sizes. Red, white and blue 65c per 100 postpaid in Michigan. Specify color and size.

John Nies Sons Hdwe Co. Holland, Mich.

Free-Conkey's Poultry Book

80 pages chock full of information about the feeding and rearing of chicks, culling of hens, etc. Tells how to keep chickens healthy and how to make them pay. Whether a beginner or a professional, Conkey's Book is worth dollars to you. Sent for 6 cents in stamps to pay postage. **THE G. E. CONKEY CO.** 6514 Broadway, Cleveland, Ohio

POULTRY



Baby Chicks \$15.50 a 100 and up.

Postage PAID. 95% live arrival guaranteed. FREE feed with each order. 40 breeds chicks, 4 breeds ducklings. Select and Exhibition grades. A hatch every week all year. Catalogue free. Stamps appreciated. **NABOB HATCHERIES,** Gambier, Ohio

April Ancona Pullets and cockerels, also yearlings, \$1.50 each. **MRS. NEIL COOHRAN,** R. 2, Tekonsha, Mich.

PULLETS PULLETS

We are all sold out of 8-10 week old pullets. And are booking orders now for breeding pens of ready to lay Single Comb White Leghorn, 5 pullets or yearling hens and one choice cockerel for Oct. Delivery. These birds are all raised by us from our bred to lay American-English strain. None better any where, regardless of what price you pay. They must be seen to be appreciated. Get ready for next year breeding season by ordering a pen of these, splendid birds and increase the profits from your flock. Choice breeding cockerel.

Price on application.

Macatawa White Leghorn Co. Inc., R. 1, Holland, Mich.

LEGHORNS

AND ANCONAS

Yearling Hens and Pullets. This stock is all selected Pure Breed Practical Poultry, late moulters and good layers; 3000 Yearlings; limited number pullets. Guaranteed good practical quality. We will send you description of fowls and egg records. If you want first class paying Leghorns, write to us.

STATE FARMS ASSOCIATION Desk 1, Kalamazoo, Mich.

Barred Rock Cockerels

Parks 200-egg strain. From stock direct from Parks best pedigreed pens. \$3 each. **R. G. KIRBY,** Route 1, East Lansing, Mich.

CHICKS

Send your order in early for 1922 delivery. Our prices are always reasonable. We give you a square deal.

ROYAL HATCHERY, R. 2, Zeeland, Mich.

Barred Rocks, W. Wyandottes, R. I. Red stock. **HOWARD GRANT,** Marshall, Mich.

BOOKING—1922—ORDERS

B-A-B-Y C-H-I-X

WHITE LEGHORNS AND MOTTLED ANCONAS Also Black Leghorns, Brown Leghorns, Buff Leghorns, Black Minorcas, R. O. Rhode Island Reds, Barred Plymouth Rocks, White Plymouth Rocks, Silver Wyandottes, White Wyandottes. WE HATCH eggs from Hoganized flocks on free range on separate farms. Send for Price List. **CRESCENT EGG COMPANY** Allegan, Michigan

DAY-OLD CHICKS

\$16.00 per 100 and up. Hatching eggs, \$2.00 to \$15.00 per setting and \$9.00 to \$15.00 per 100, from 25 varieties of pure bred, farm raised fowls: Chickens, Geese, Ducks, Turkeys and Guinea. Price list and circular free. Plenty of nice breeding stock. Book now for early spring delivery. **WILMINGTON HATCHERY & POULTRY CO.** Wilmington, Ohio.

Barred Rocks egg contest winners, eggs from strain with records to 250 a year. \$2.00 per setting prepaid by P. P. Circular free. **FRED ASTLING,** Constantine, Mich.

Barron Strain year old hens for sale from best utility stock at \$1.20 each. Get a pen of these and start right. **BYRON CENTER POULTRY FARM,** Byron Center, Mich.

Barred Plymouth Rock Cockerels, large birds from prize-winning heavy-laying strain \$5.00 each. **J. A. Barnum,** Union City, Mich.

Cockerels and pullets for sale from M. A. C. Round-up champions, vigor fine, range raised. \$5.00. **Chas. H. Wright,** Jones, Mich.

English S.C.W. Leghorns. Early hatched pullets and choice yearling hens at reasonable prices. **Robt. Christopher,** R. 4, Holland, Mich.

Top Quality Cockerels Minorcas, Houdans, Rocks, Reds, Orpingtons, Spanish. **Tyron Poultry Farm,** Fenton, Mich.

WHITE LEGHORNS FREE! Lay 265 to 301 eggs per year. Winners at 20 shows. Chicks, eggs, pullets, hens and males shipped C.O.D. at low prices. Write today for catalog and complete information to the World's Largest Leghorn Farms. **GEO. B. FERRIS,** R. 2, Grand Rapids, Mich.

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

Pullets and Breeding Stock 8 varieties, also ducks and geese. Send for prices. **BECKMAN,** 28 E. Lyon, Grand Rapids, Mich.

Whittaker's R. I. Reds Michigan's Greatest Color and Egg strain. Both Combs. Write for free catalog and our new proposition in regard to good breeding cockerels. **INTERLAKES FARM,** Box 39, Lawrence, Mich.

WHITE WYANDOTTES 207 egg average; cockerels \$5 each, 3 for \$14, 6 for \$25. **FRANK DeLONG,** R. 3, Three Rivers, Mich.

Barred Plymouth Rock cockerels, pullets, and yearling hens. 200 egg laying strain. Prices reasonable. **Mrs. H. P. Schulze,** Laingsburg, Mich.

Single Comb Buff Leghorn cockerels. April and May hatched. Large lively fellows. Noted laying strain. **Willard Webster,** Bath, Mich.

W. Chinese Geese, Pekin Ducks, R. O. **MRS. CLAUDIA BETTS,** Hillsdale, Mich.

Mammoth Pekin Ducks Fine breeding stock. **J. W. Drake Farm,** R. 4, Pontiac, Michigan.

Additional Poultry Ads. on Page 447



Build It With Natco

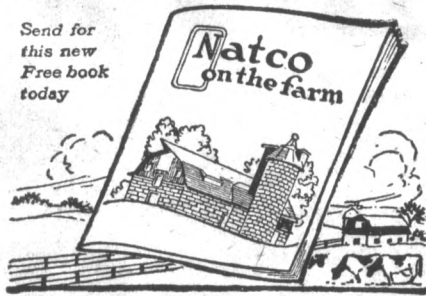
YES—barn, house, silo, storage bins, garage, whatever it may be—build it with Natco Double Shell Tile. You will have a building that is warm in winter and cool in summer, that is damp-proof, vermin-proof and fire-safe. And the actual cost per year of service will be low, because Natco walls require no painting or repairs—they "last for generations." First cost is the only cost. And the rate for insurance is the lowest.

Look into Natco construction before ordering material for any farm building. Write for new free booklet—"Natco on the Farm." Has many photographic views of various kinds of farm buildings owned by successful and satisfied farmers. You'll enjoy this book. Send today for your copy.

Ask your dealer to show you samples of Natco Double Shell Tile and Natco Tex-Tile (for dwellings). He will quote prices and help you figure your requirements.

National Fire Proofing Co.
1029 Fulton Building Pittsburgh, Pa.
23 Factories assure a wide and economical distribution

Send for this new Free book today



Color Your Butter

"Dandelion Butter Color" Gives That Golden June Shade and Costs Really Nothing. Read!

Before churning add one-half teaspoonful to each gallon of winter cream and out of your churn comes butter of Golden June shade to bring you top prices. "Dandelion Butter Color" costs nothing because each ounce used adds ounce of weight to butter. Large bottles cost only 35 cents at drug or grocery stores. Purely vegetable, harmless, meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless.

Wells & Richardson Co., Burlington, Vt.

New 300 Candle Power Lamp



Make \$60 to \$100 a Week
Introducing this wonderful new lamp. Gives soft, brilliant light—restful to eyes; ideal illumination. Burns Kerosene or Gasoline. Clean, odorless, economical. Burns 96% air, 4% fuel. Absolutely safe. Lights with match. 100 times brighter than wick lamps. Patented. Greatest improvement of age. Table lamp, hanging lamp, lantern. Work all or spare time. You simply take orders. We deliver by Parcel Post and do collecting. Commissions paid same day you take orders. No experience necessary. Get started at once. Big season now on. Write today for catalog and special agents offer.

AGENTS For THE AKRON LAMP CO.
FREE Outfit Offer 391 Lamp Bldg., Akron, O.

A FINE FUR COAT

Made from Your Own Horse or Cow Hide. We make this coat to measure from the hide you send. Write us for special low price.

Any Kind of Skin We make up any kind of skin to suit your needs. Also Ladies' Coats and Furs, Robes, etc.

We have been in the tanning business since 1878 and guarantee satisfaction.

FREE Book of styles of Men's and Women's furs.

Write for it today

Reading Robe & Tanning Co.

116 East St. Reading, Mich.



It adds nothing to my satisfaction that another man shall be disappointed.
—Lincoln.

Woman's Interests

Everything from A to Z Discussed

Club Women of State Federation Have Interesting Session

THE work being done by the country women's clubs and organizations received a large share of attention at the recent annual meeting of the Michigan State Federation of Women's Clubs. Dean Mary Sweeney and Mrs. Louise Campbell, leader of home extension agents, were speakers, and an exhibit of work done by the extension department was shown during the entire convention. Mrs. Campbell made a plea for all club women to get behind the work being done through the extension department and use their influence to get the work started in more counties. Dean Sweeney stressed the need of greater knowledge of nutrition, and declared that one person out of every three is not up to par because of wrong feeding before they were six years old. She stated that only a small per cent of the world's workers are at the height of their working efficiency, and laid the blame at the door of mal-nutrition.

The exhibit from the college consisted of charts showing the effect of deodorants on fabrics, how to set colors, how to test cloths, how to remove stains, and children's clothing. A large chart showed the extent of the work done by the extension department in home economics.

With the college exhibit was an exhibit of rats, sent by Dr. Mitchell, of the Battle Creek Sanitarium, and designed to show the effect of improper feeding. The importance of furnishing plenty of calcium and iron to growing animals and nursing mothers was strikingly shown in the condition of the rats who were deprived of these foods.

Health was not the only thing considered by these earnest club women, however. If there was any subject which in any way concerns a woman

that was left untouched, it has not yet come to light. Mothers' pensions, divorce, disarmament, clothes, jazz, prohibition enforcement, birth control, well, just everything, came up for discussion.

The federation asked for an investigation of the administration of mothers' pensions, and is planning to have the presidents of local clubs get in touch with the women of their neighborhoods who are receiving pensions.

Local clubs were also asked to send a demand to President Harding and congress that at the coming disarmament conference America insist upon an international policy to prevent exploitation of the Orient.

Mrs. W. R. Alvord, the state president, urged members to assist in prohibition enforcement by frowning upon songs and jokes which make the law a subject of ridicule. Birth control was left with the adoption of a resolution asking club women to make a thorough and scientific study of the subject.

Interesting among the speakers was Mrs. Percy V. Pennypacker, of Austin, Texas, a former president of the General Federation of Women's Clubs. She urged women to form their own opinion and not be afraid to express them. "No woman has a right to give her husband's opinion as hers," said Mrs. Pennypacker. "Too many persons form their opinions from newspaper headlines or from what a friend or relative says. Before you can form a real opinion you must read, talk with others, and think. You must consider all sides of the question before you build an opinion. Then, when you have formed an opinion, duty demands that you speak when the proper occasion offers or permits. We should take our opinions into the conversational world.

We are talking not merely for conversation, but because our country desires each person to give the result of his own thoughts.

"Women have a great responsibility with regard to the topics of conversation in the family circle. Nothing can be made more intellectual than family table talks. Every skilled teacher easily picks out the children who come from homes where intelligent conversation is the rule. These boys and girls have a fund of general information, an outlook on life, and a breadth of vision that is invaluable. On the other hand, much of the lack of reverence for law and authority on the part of youth may be traced to remarks of their parents in the home."

Mrs. Marx E. Obendorfer, of Chicago, entered the lists against jazz. She declared that unless jazz music is obliterated the morals of the young men and women of the nation will be corrupted beyond redemption.

"The matter of jazz is much more serious than the average person realizes," said Mrs. Obendorfer. "Psychologists agree that there is a vital relation between music and morals. Even the most primitive races know this, for they rouse their people in ceremonials, and for war by the rhythm of drums, tom-toms, gongs, cymbals and other instruments. Jazz is rhythm out of joint. There are reactions in jazz which excite the emotions and which are as intoxicating as hard liquor and even more disastrous in its effects. I have seen ballroom dancers drunk with jazz."

"What I am saying is not idle theory. Physicians have experimented with the effect of jazz in hospitals and particularly among the insane. The reactions are physically and emotionally corrupt. Judge Lindsay says that inquiries among Denver high school lads brought out statements that the greatest contributory cause to the downfall of youth is jazz music. Any high school which permits jazz music should be held guilty of misdemeanor."

"There is another musical mission for women to undertake," Mrs. Obendorfer continued, "the suppression of dirty songs in theaters. Much of our so-called popular music needs to be cleaned, disinfected, and deodorized."

The absence of men speakers on the programs was noticeable. "Women are as well qualified to discuss pertinent subjects as men," said Mrs. Alvord. "Did you ever hear of a man's convention asking a woman to speak? Why, then, should women depend upon men for instruction?"

TEACH CHILDREN THE CORRECT FOOD HABITS.

Too prevalent mal-nutrition among school children is the target of a special campaign being launched by the home economics section of the Michigan Agricultural College extension service. A special series of nutrition lessons has been prepared and will be distributed to the schools of

When Doctors Disagree



THAT milk is the food par excellence for child and man is to go no longer unchallenged by leaders of a different school. Dr. William D. Richardson, chief chemist for Swift & Co., told the Institute of Independent Margarin Manufacturers these things about milk:

"Milk is supplied by nature only for the young of mammals and the supply is cut off automatically after a time which varies with different species from about one month to one year. Thereafter none of the species in a state of nature is furnished with milk and milk therefore can not be considered in any sense a natural food for adults."

"It is not difficult for any one to admit that milk, species for species, is the ideal food for mammalian young,

but this admission does not carry with it the corollary that milk and dairy products are the ideal or the necessary food for adults. If it were so, then nature must have erred grievously in not providing some source of supply for all her adult mammalian family, men and animals. The general facts of natural history indicate conclusively that there is no intention in the scheme of nature to have adults dependent in any degree for growth, health, or general welfare, on milk or dairy products."

On the other hand, Dr. J. H. Kellogg told the American Association of Medical Milk Commission and the Certified Milk Producers' Association of America, this:

"Milk is an essential foodstuff not only for infants but for older children and adults. Every child needs one quart of milk a day and every adult a pint and a half of milk to insure an adequate supply of all food essentials and the efficient utilization of other foodstuffs."

the state, especially in rural communities.

The lessons will cover everything from the size of meals which should be eaten, to the correct balancing of "rations." The first lesson deals with milk and its value in human diet, especially for children.

The campaign is to be in the nature of follow-up work for the educational nutrition work which has been carried on by the United States Department of Agriculture and State Agricultural College specialists for several years. The work in Michigan will be handled under the supervision of Miss Muriel Hopkins, nutrition specialist with the extension division at M. A. C. County agricultural and home demonstration agents will cooperate with rural school teachers in distributing the material to the class rooms.

ON THE USE OF MEAT.

The Editor,
The Michigan Farmer,
Detroit, Michigan.

Dear Sir:—We have read with interest in The Michigan Farmer of September 3, an article entitled, "Making the Most of Meat." The statement is made in this article that "the great agitation on the subject of health that has brought to even the most careless people the knowledge that less meat and more fruits and vegetables will prolong life and make the individual more comfortable and efficient while he does live, has had its effect on the cooking in all progressive homes."

We respectfully submit that the statement that less meat will make the individual more comfortable and efficient is not supported by modern scientific opinion.

It is true that the habitual over-consumption of any individual food or of a varied diet may become harmful to some people and usually is harmful, but of all foods meat products can be consumed in the largest quantities without ill effect. Consider, for example, those tribes of Eskimos which live on meat products alone, consuming very large quantities.

In this connection, we can make the following affirmative statements with respect to the value of meat as a food:

1. Meat and its accompanying fat and organs appear to be the only substances which, while furnishing a complete diet in themselves produce no ill effects in the human organism. This cannot be said of any other natural food substance, even milk, when used exclusively as an adult food. Meat, however, has these peculiar properties: It is capable of satisfying the human appetite more than other foods when used in moderate quantity and when used even in excessive quantities or exclusively as by the Eskimo, no harm results.

2. Meat is a natural food containing the highest form of protein for human consumption, in the most palatable, stimulating and digestible form.

3. Meat contains vitamins in sufficient quantities for nutritional requirements, particularly if a moderate proportion of fat and the internal organs such as liver, kidney, sweetbreads and heart are consumed from time to time in place of the ordinary steak, roast or chop.

4. We recommend high-grade animal fats as energy foods. We regard proteins and calories still as the two fundamentals in dietetics. Carbohydrates, such as the starches found in cereals are also valuable as energy foods and should be consumed in fair proportion for the sake of variety.

5. The vegetable proteins are generally inferior to meat proteins and cannot be considered as true substitutes for meat. A few of them found in small proportion in rice, in peanuts, in wheat and in maize are fairly good but are not truly equivalent to the proteins of meat.

6. Milk and dairy products are important articles of food which should be consumed in moderate quantities and along with other foods. However, the proteins of milk in the form of cheese can never be considered a true substitute for meat.

7. Meat is by far the most important single item in the diet which fact has been recognized by mankind generally from time immemorial. His daily menu has been built around meat as the central object.

Very truly yours,
Bureau of Public Relations.

W. W. Woods,
Director Committee on Nutrition, Institute of American Meat Packers.

Look for the
ROWENA
trade-mark
on the sack

Lily White

"The Flour the Best Cooks Use"

Is Backed by Our Positive Guarantee

WE GUARANTEE LILY WHITE "the flour the best cooks use" because we know it will give the home baker the most satisfactory results she ever obtained with any flour.

WE GUARANTEE LILY WHITE because we know that bread made of it will be light, of rare texture, tender, wholesome and appetizing; because biscuits and rolls will be fluffy and digestible, beautiful in appearance and delightful to the taste; because it makes, also, delicious pastry, tender and flaky.

WE GUARANTEE LILY WHITE because it has been milled under the most scrupulously sanitary methods known to modern millers; because only the rich, nutritious food values of the wheat kernels are milled, and because of the unsurpassed color, texture, balance, flavor, and uniform granulation.

WE GUARANTEE LILY WHITE to you, and our sixty years of milling experience stands behind the guarantee.

Ask for it at your grocer's and be convinced.

VALLEY CITY MILLING COMPANY

GRAND RAPIDS, MICHIGAN

"Millers for Sixty Years"

Dont Send 1 Penny



Just send your name and address and I will send this fur scarf to you. You don't pay one penny until the fur is delivered at your door by the postman. This is a wonderful opportunity of getting a \$9.00 scarf for \$4.45. Our price is amazingly low. Compare it with others and see for yourself.

A Fashion Necessity
Every stylish woman is wearing a fur scarf with her coat, suit, dress or waist. It is appropriate for every occasion. This scarf is made of Manchurian fox, which has long, soft, silky hair. This is not the genuine American fox, but will wear much better than the genuine. Scarf is a large animal shape with head at one end and tail and paws at the other. Lined throughout with all-silk lining. Also has silk ruffle around neck. Very large and graceful. Colors: Black, Lucite brown or taupe gray.
SEND NOW money. When the fur scarf arrives pay the postman \$4.45 for it. We have paid the delivery charges. Wear the scarf. If you don't find it all you expected, return it and we will cheerfully refund your money at once. This is our risk—not yours. Be sure to give color. Order by No. 17.
Walter Field Co. Dept. 82101 Chicago

FARM HELP

Farmer Wanted

Experienced farmer to operate a modern farm near Belleville. A man not afraid of work who knows general farming. Wife must be good housekeeper. Prefer small children. When writing state size of family, age and experience during past six years. Milking done by machine. Cash salary monthly. Do not answer unless you are a farmer and wish permanent position. Address replies C. H. KISKADDEN, 46 Davenport Ave., Detroit, Mich.

FREE



This beautiful genuine Cut Glass Sugar and Cream set (an ideal Christmas gift) is yours free for selling only 60 packages chewing gum, assorted flavors at 5c a package. People buy from two to five packages. SEND NO MONEY. Simply send name and address and have \$3 ready for the mailman when he delivers the 60 packages (300 sticks) of gum and the Cut Glass set.

TEMPLE MERCHANDISE CO., Toledo, O.
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Send 15 cents in silver or stamps for our up-to-date fall and winter 1921-1922 catalog, containing over five hundred designs of ladies', misses' and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating thirty of the various, simple stitches) all valuable to the home dressmaker.



No. 3724—Junior Dress. Cut in three sizes, 12, 14 and 16 years. A 14-year size will require six yards of 27-inch material. To make as illustrated will require 1 1/4 yards of plain and 4 1/4 yards of figured material. Price 12c.

No. 3722—Girl's Dress. Cut in four sizes, 6, 8, 10 and 12 years. A 10-year size will require four yards of 38-inch material. Price 12c.

No. 3730—Boy's Suit. Cut in four sizes, 3, 4, 5 and 6 years. A four-year size will require 2 1/2 yards of 27-inch material. Price 12c.

No. 3733—Girl's Dress. Cut in four sizes, 6, 8, 10 and 12 years. A 10-year size will require 3 1/4 yards of 36-inch material. Price 12c.

No. 3737—Ladies' Undergarment. Cut in four sizes: Small 34-36; medium 38-40c; large 42-44; extra large 46-48 inches bust measure. A medium size requires three yards of 36-inch material. Price 12c.

No. 3766—Ladies' House Dress. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38-inch size will require six yards of 36-inch material. The width of the skirt at the foot is about 2 1/2 yards. Price 12c.



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Millions of housewives use Calumet Baking Powder because of its dependability—because when they place their baking in the oven, they know it will "turn out" all right. They are confident of results because they know that no matter what they bake—pies, cakes, biscuits, muffins—the results will be the same—light, perfectly raised, wholesome foods.

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MICHIGAN FARMER PATTERNS.



No. 3740-3727—A Pretty Evening Gown. Waist 3740 cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 3727 cut in six sizes: 24, 26, 28, 30, 32 and 34 inches waist measure. To make the dress as illustrated will require for a medium size, 4½ yards of plain and 3¼ yards of figured material 32 inches wide. Of one material 44 inches wide six yards will be required. The width of the skirt at the foot is about 2¼ yards. Two separate patterns, 12c for each pattern.

No. 3312-2939—An "Up-to-Date" Frock. Waist 3312 cut in seven sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Overdress 2939 cut in seven sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. To make the waist will require 2½ yards of 36-inch material. The overdress requires 3½ yards of 40-inch material. Two separate patterns, 12c for each pattern.



Feeding the Baby

IMPROPER feeding of infants and young children is blamed by Dean Mary Sweeny of the Michigan Agricultural College, for the fact that one person out of every six is not physically able to do the amount of daily work that a normal, healthy human being should do. With this grave charge resting upon mothers, it behooves every one with children to learn the proper thing in feeding, and having learned it to practice it. Many mothers who know what is right in child feeding allow themselves to be coaxed or bullied into giving the child improper foods, or allow it to form bad food habits. If mothers realized that it is as wicked to feed a child improperly as it is to administer slow poison a large per cent of the mal-nutrition we see about us would disappear.

Of course, the ideal food for the infant is the natural food, and lucky are the babies whose mothers have led such sane, well-ordered, restful lives that they can supply mother's milk for their young. Nothing else, no matter how carefully prepared, will take the place of mother's milk, nor so well insures health and life. Out of fifty thousand babies studied those who died under one year of age showed a percentage of one to two for bottle-fed babies and one to thirteen for breast-fed. Mothers' milk for the infant contains a promise of longer life, too, if one may trust statistics. In a group studied, eighty-five children breast-fed, were all alive at eleven years of age, while one hundred and nine bottle-fed did not reach the eleventh year.

To be able to feed her baby the mother must first take care of herself. She must see to it that she has plenty of fresh air and exercise, but on the other hand, she must avoid exposure and over-work. Her food must be plentiful and easily digested. For this reason she must avoid foods which she knows always "upset her stomach" and those like sweets which cloy the appetite and keep her from eating enough plain, nourishing food.

Her daily diet should include fruit and vegetables, green vegetables to be preferred, cereals, meat or fish or eggs, milk, and fat, either cream, butter, bacon, oil or something similar. A bowl of gruel or milk or egg-nog just before the mid-morning and mid-afternoon nursing is helpful.

Above all, she must avoid excitement and anger.

In feeding anything, animal or human, regular hours is a prime factor in success. Schedules vary according to the physician, but having adopted a schedule which promises success adhere to it. Feedings four hours apart with the last one at midnight up to three months of age, were for a time followed. After three months the midnight feeding was dropped. Three-hour intervals are now more generally followed, and the new-born babe has its last feeding at eight o'clock at night. The mother is then insured uninterrupted rest until six o'clock in the morning, when feedings again begin. This schedule is used by the Grand Rapids Clinic for infant feeding with good results.

Occasionally in the case of small, delicate infants smaller and more frequent feedings are necessary. In all things the mother must be guided by the reaction of the infant to its food. Commonsense in feeding babies is as valuable as in everything else in life, and it must be remembered that even with infant feeding "one man's meat is another man's poison." The main point

is to find out what is best for your baby, and having found it, stick to your schedule without regard to what some other mother does.

If the milk supply is insufficient it may be necessary to supplement it with some other food. But continue nursing so long as the supply lasts, unless illness on the part of the mother prevents, or the milk plainly disagrees with the baby. A small amount of mother's milk often means the difference between life and death to a baby.

Do not give the baby "tastes" of food at the table. For the first six or seven months at least, milk is its only requirement.

HOME REMEDIES FROM OUR SUBSCRIBERS.

When using poultices lay in a steamer over boiling water to keep hot.—Mrs. L. L. G.

To relieve quinsy, put boiling water in a can, add a few drops of peppermint oil, invert a funnel over the can, place the mouth over the funnel and allow steam to go in throat.—Mrs. L. L. G.

For an obstinate case of hiccoughs, the following will stop the worst cases: Give a tablespoonful of vinegar in which a half teaspoonful of salt has been dissolved.—Mrs. L. M. T.

When the first nausea and griping pains which indicate bowel trouble are felt, this simple remedy, repeated at half hour intervals for several doses will often avert it altogether. Take half a teaspoon of wintergreen (or one-fourth teaspoon of peppermint), a quarter of a teaspoon of soda and a little sugar in a quarter of a cup of hot water.—M. N. N.

If as much care were used in dressing the feet comfortably and attending to their comfort in all ways as we use in regard to other parts of the body, it would add much to our health and happiness. When the feet become hot and painful, take time to remove the shoes and stockings and bathe the tired feet in cool water until they are relieved. A spoonful of aqua ammonia added to the water is helpful. Also sprinkle the feet with talcum powder after drying, and put on fresh stockings.—G. K. L.

HOUSEHOLD HINTS.

A sandwich for the school lunch may be made of cold baked beans, a few stuffed olives chopped fine, moistened with chili sauce or catsup and spread bread.—Mrs. G. S.

A good substitute for linoleum may be made by taking the required number of strips of building paper, painting it brown or whatever color is desired, cutting it and tacking it to the floor.—Miss Z. I. D.

A very satisfactory way to remove stove polish from cloth is to rub the stained portion at once with soap. Immerse the spot in warm water, and as soon as convenient, wash it, changing the water frequently. If white goods, soak in soap and water, adding a little washing soda. If this does not help, other solvents such as chloroform or gasoline can be used. There is a soap that is made especially for use with gasoline. This can be dissolved and a little brush used to work the solution into the fabric. Rinse with clean gasoline, using away from light and fire, and hang out in the air to dry.—E. G. W.

Lest We Forget

Our Weekly Sermon—By N. A. McCune

ARMISTICE DAY is coming. It is a new anniversary in the calendar, celebrated, not as a national holiday alone, but as an international anniversary. Armistice Day, 1921, is especially noteworthy because it is the day for the assembling of the conference on the limitation of armament, called by the President of the United States. Should this conference succeed, that is, should it be the cause of reducing the armaments of the great powers, it will be the most memorable event of the year, perhaps of many years. Should this reduction of armament finally lead to the abolishment of military machinery, the name of President Harding will be as immortal as that of Washington, Lincoln, or Grant. It is not expected, however, that this conference will have any such startling results at first. Indeed, that is not the intention. But if an agreement can be reached so that armament will be limited for the present, with a gradual reduction of it to a certain point, the lovers of a warless world will be jubilant.

This is the next great step the world must take, if civilization is to be saved. When one contemplates the war debts of Europe, debts that will crush and stifle generations yet unborn, and when one adds to this the fact that the best brains, the best bodies, the hope of Europe, are buried on battlefields, it is enough to cause the most bellicose nation to ask itself whether the old way of war is the most profitable use of money and brains. As one looks back, he sees that civilization has come slowly out of barbarism.

IN fact, we are not wholly out of barbarism yet. Some moments of victory are behind us, when the forces of freedom and right shot forward with unprecedented velocity. The granting of the Great Charter was one of these occasions. In 1215 it was made a law of England that the personal liberty and property of all freemen was secured. No man could be arbitrarily imprisoned, nor his property confiscated. To be sure, this has not always been lived up to, but on the other hand it has been lived up to, by the great majority of governments and peoples. The Habeas Corpus Act came later, and guaranteed that every man shall be arrested only for just cause and that he shall have a fair trial in court. The Bill of Rights was another of these great democratic documents, and decreed that the monarch was bound to respect the rights of his subjects. Then in the year 1775 came the immortal Declaration of Independence, dear to all American hearts, beginning with these words, "We hold these truths to be self-evident, that all men are created equal; that they are endowed by their Creator with certain unalienable rights; that among these are life, liberty and the pursuit of happiness."

Looking back over the long past, it is apparent that progress has been slow, in the realm of popular rights. But it has been far more rigid than the progress of the relationships among nations. Men who regarded each other in a spirit of good will eyed other nations as so much booty to be captured, or as a fat carcass to be carved. Is it possible to have a warless world?

THE answer to this is given by two opposite parties. The military party says, no. Men are selfish and deceitful. Nations are often guided by astute and scheming men. Our nation must be prepared to resist these to the teeth. Force is the only principle

by which the world can be ruled. The other party replies that military preparedness has not prevented war. It says that these militarists fundamentally disbelieve in the goodness and honesty of other men and nations. It says they cannot be trusted, and hence they must be forced at the point of cannon, to be good. The peace party further denies absolutely that force has been the main cause of the advance of the world in morals and moral standards. Christianity has not relied on force for its victories. Moreover, preparedness has not prevented war. When the Great War began, Germany was prepared, France was prepared, Russia was prepared, England had the world's most splendid navy, Italy had an excellent army, and all this vast array of military force did not prevent war.

Today such men as Pershing, Bliss, Maurice, Beatty and many more are saying that the world ought to learn from the past that huge armies and navies do not keep the peace. Let us quote the exact words of a few of these: General Pershing: "The world does not seem to learn from experience. It would appear that the lessons of the past six years should be enough to convince everybody of the danger of nations striding up and down the earth armed to the teeth. But no one nation can reduce armaments unless all do. Isn't it time for an awakening among enlightened peoples to the end that the leading powers should reach some rational agreement which would not only relieve the world of this terrible financial load, but would in itself be a long step toward the prevention of war?"

General Bliss, United States Army: "If nations are armed to the limit against each other and each knows that the armament of the other has no use against any other than himself—can we not all see that when one approaches its limit and believes the other to be capable of further expansion, war, without warning, is almost inevitable."

General Maurice, British Army: "I believe now that if you prepare thoroughly and efficiently for war, you get war."

WHETHER this conference on the limitation of armament will avail anything, depends largely on the spirit of the nation where it is held. If the press becomes skeptical and fearful, there will be little done of a progressive and forward-looking nature. Already one widely circulated branch of the daily press is using every possible means of preventing positive results from the conference, and is printing scareheads about the yellow peril, to advance its designs. The religious press, which is no small factor, we hope, is certainly with President Harding and Secretary Hughes. Some of the principles which thinking people believe should be agreed on, are: "Open Agreements, openly arrived at." That is, no secret treaties that are made public only as war impends. "The Pacific Settlement of Every International Dispute." "The Principle of Equality of Race Treatment." This does not mean that every race must have the privileges of citizenship granted it, without considering personal fitness, as that is a question each nation must decide. But it refers to the principle of granting all aliens who come within a nation's borders, whether as travellers or to become residents, equality of legal status, without reference to color or creed, or race. Let us hope for great things from Armistice Day, 1921.



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THAT it is permanent in color and will cover 250 to 300 square feet per gallon, two coats.

THAT, if properly applied, it will not chalk, rub off, peel or blister.

THAT we will furnish new paint, transportation charges prepaid, if it does not come up to this guarantee.

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Improved SOUTHERN FARM, 644 acres. Marlboro County, South Carolina. Adapted to grain, truck, cattle farming. Modern residence, dairy barns, silo, John Hickson, Aquadale, N. Car.

Wanted to Buy An improved lower Michigan farm. Give description and lowest cash price. O. F. TURNER, Powers, Mich.

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Montgomery, County, Alabama, offers the choicest Lime Lands of the South for Dairy and Livestock farming, and rich sandy loams for fruits and vegetables. Best Public School and Road System in the U. S. Convenient markets, long growing season, pure water, low tax rate, equitable climate. Farms can be bought with small payments and deferred payments at six per cent for long period. Write for information NOW! Division 31 FARM SECTION, CHAMBER OF COMMERCE, 708 Bell Building, Montgomery, Ala.

\$1000 Secures 120-Acre Farm Between Jackson and Lansing

Here happiness, prosperity abound; fertile, productive soil with excellent markets make farmers independent; on state reward road, near RR, high school town, convenient fine cities; excel. dark-loom tillage cutting 2 tons hay acre; stream-watered pasture, wood-land; variety fruit; berries; good 7-room house, bountiful shade, splendid view; substantial barn, poultry house. Immediate sale necessary. \$2800 takes all, only \$1000 needed, easy terms. Act quickly. Catalog free. Mason E. Reynolds, Mason, Mich.

\$1800 Secures 54-Acre Farm Near Detroit; Good Buildings

A "black-loam" money-maker; one State's finest sections; excellent markets; near bustling RR town, all advantages; 46-acres tillage, producing 100 bu. corn acre, large crops wheat, oats, hay, etc.; 10-cow wire-fenced pasture; valuable wood, timber; variety fruits; attractive 8-room house, piazza, 60 ft. cow barn. To settle affairs quickly, \$8100 takes all, only \$1800 needed, easy terms. Big possibilities this splendid farm. Investigate now. Catalog free. W. N. LANPHERE, Monroe, Mich.

110 Acres On Improved Road Pr. Horses, Hay, 10 Cows

Fodder, potatoes, cream separator, full tools, implements, etc. included to quick buyer; short walk village; good markets, dark loamy fields, 15-cow pasture, wood, good 8-room house, big barn, stable, garage. Owner unable to farm \$2800, part cash, easy terms. Details and picture page 16 Catalog 1100 Bargains. FREE. STROUT FARM AGENCY, 814 BC Ford Bldg., Detroit, Mich.

Renter Wanted

for 140 A. farm; on interurban car line 1 1/4 miles from Michigan Agricultural College; 100 A. cleared; 11 room house; basement barn; concrete silo; must be good live stock man. Man under 45 yrs. and with more than common school training preferred. Possession March 1st, 1922. Write C. A. WILLSON, 1710 Yale Ave., Knoxville, Tenn.

80 ACRES

A few miles from Saginaw on Stone road, 1/4 mile from school, 1/4 mile from beet station, 70 acres tile drained every four rods. Heavy clay loam, first class beet land. 8-room frame house in good repair. Barn 36x50, Granary, 14x20, Flowing well. Price \$10,000. Terms. MORGAN LAND COMPANY, Saginaw, Michigan



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Blue Bell, Supreme Champion at the Smithfield Show 1919, and the Birmingham Show 1920, is a daughter of Edgar of Dalmeny.

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A very choice lot of young bulls—sired by Edgar of Dalmeny are, at this time, offered for sale.

Send for Illustrated Catalogue.

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Public Auction Sale Wed., Nov. 9, 1921

Aberdeen-Angus Cattle and Poland Chinas
4 bulls, 12 females. Some prize winners and Grand Champions this year, included in the sale.

1 herd boar, 3 spring boars, 3 sows, 7 gilts and 6 pigs. Come and look them over.

The L. A. S. will serve dinner at noon: 1 mi. west and 5 mi. north of St. Louis, Mich.

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bulls and heifers of the very best of breeding, from
12 to 15 months of age. For next 30 days will price
bulls at \$100.00. Real bargains. Inspection invited.
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REGISTERED Aberdeen-Angus. Ten heifers, six
bulls from eight to fourteen months. Best of
breeding, the growthy kind that make good. Reason-
able. Inquire **F. J. WILBER,** Ohio, Mich.

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One Reg. Guernsey Bull Serviceable Age. Feder-
al Accredited Herd. Farmer Prices.
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Registered Guernsey Bulls for sale. 2 sired by
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HICKS' GUERNSEY FARM, Saginaw, W.S. Mich.

4 Guernsey bulls 10 to 15 mos. old. Accredited herd
4 no. 9407. 1st prize yearling and calf at Jackson.
Grandsons of 3rd A. A. class leader, Carrie of Hill-
hurst, 514 lbs. b. f., out of A. R. dams. Priced to sell.
G. W. and H. G. RAY, Albion, Mich.

Guernsey Females of superior breeding, at reduced
prices. Tuberculin tested. Send for
sale list to day. **G. A. WIGENT,** Watervliet, Mich.

For Sale Register Guernsey bull calves out of A.
R. dam, \$40.00 each if taken soon.
JOHN EBELS, R. 2, Holland, Mich.

For Sale cheap, young Guernsey bull ready for light
service, federal tested, sired by our grand cham-
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Ia. **A. HATT & SON,** Napoleon, Mich.

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WinnWood Herd Registered Holstein-Friesian Cattle

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are looking for seed stock, we
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A Good Note accepted in payment of finely bred reg-
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of the best, and at prices within reach of all. Write.
GEO. D. CLARKE, Vassar, Mich.



BIG ALFALFA SEED YIELD.

REPORTS of unusual yields of al-
falfa seed on Michigan farms are
coming in to the experiment station at
the Michigan Agricultural College, ac-
cording to announcement of J. F. Cox,
of the college crops department.

A yield of thirty-two bushels from
twelve acres was noted on the farm of
John Prescott, in Shiawassee county,
or two and two-thirds bushels per acre.
It is apparently excellent seed, too,
Prescott's field being four years old.
The crop was hulled with a clover
huller.

Michigan-grown seed produced from
strains of alfalfa which are hardy un-
der Michigan conditions, may be con-
sidered as valuable as seed from the
northwest, and, wherever available, its
local use should be encouraged. Oc-
casional farmers through Michigan,
noting the unusual set of alfalfa seed,
due to unusually advantageous weath-
er conditions, harvested enough seed
hood use.—M.

PURE-BRED CATTLE IN MICHIGAN.

THE average individual does not
think of Michigan as a big cattle
state. Nevertheless she ranks twelfth
among all the states in the number of
pure-bred animals owned by her farm-
ers. The census enumerators figured
that her farmers possessed 62,800 head
of pure-bred cattle.

Of this number, 16,267 belong to the
beef breeds. The number of Short-
horns is the largest, being 11,712. Next
come the Herefords, with 1,825; and
close behind are the Angus breeders
with 1,519, and fourth are the Polled
Durham breeders with 1,067. All the
other beef breeds are credited with
144 animals.

The number of pure-bred dairy cattle
is nearly three times as great as the
number of pure-bred beef cattle, the
total being 46,553. The Holsteins lead
with 32,702; Jerseys follow with 8,296.
The Guernsey breeders are credited
with 3,369; the Brown Swiss with 429;
and the Ayrshire with 291. All other
dairy breeds claim 1,466. Michigan
stands in fourth place in the number
of pure-bred dairy cattle.

RED-POLLED CATTLE.

WHILE showing Red-Polled cattle
at the different fairs of the
state, I was in position to hear much
of what was said of the cattle, and it
is my opinion that the Red-Polled cat-
tle are not very well known. A great
many people, believing that they are
a branch of the Shorthorns or in other
words are Polled Shorthorns. And it
is my purpose to tell a little of our
breed of cattle.

Red-Polled cattle have been known
and bred for centuries in the counties
of Norfolk and Suffolk, England. The
first Red-Polled cattle to be shipped
to this country came about seventy-five
years ago.

As dairy cows, the Red-Polled have
made no phenomenal records, but the
average of the best herds would be
creditable for any breed. The world's
champion Red-Polled cow, Jean Du
Luth Beauty, produced 20,280.6 pounds
of milk and 891.58 pounds of butter-fat,
1,070 pounds of commercial butter in
365 days. At the London Dairy Show
held in October, 1919, Red-Polled cows
won first, second and third and grand
champion cow over all breeds.

In the carcass classes at the Inter-
national Exposition, Chicago, 1908, in
the two-year-old class, thirteen entries,
all breeds competing, the Red Polls
won third and fourth places. They had

for competitors the Iowa, Nebraska,
Minnesota and Missouri Agricultural
Colleges and individual breeders of
the beef breeds. In 1909, with about
the same competition they won fifth
place in the two-year-old class. In
1910, with strong competition, all the
breeds competing, they won fourth
place in the two-year-old class. In
1911, with strong competition, all
breeds competing, they won third place
in the two-year-old class. In 1912, in
competition with all breeds, they won
third and fifth in the two-year-old
class, first going to University of Ne-
braska, second to Iowa State College.
The Red-Polls were bred and fed and
exhibited by individual breeders. In
1916, fifth in the two-year-old class.
In 1919, fifth in the yearling class of
thirteen entries, dressed 65.6 per cent,
sold for thirty-one cents per pound.
Selling for as much per pound as those
above him except the grand champion.

What I have written is not, to put
the Red-Polled cattle up as the best
dairy cattle, or yet as the best beef
cattle, but we do claim that for both
purposes they can not be beat. I would
like to get in touch with every Red-
Polled breeder in the state. Please
send me your name and address.—
MARK R. WESTBROOK, Secretary of the
Michigan Red-Polled Cattle Club, of
Ionia, Michigan.

LIVE STOCK RATE CHANGES.

THE live stock minimum weights
changes authorized October 15 to
Michigan railroads on over-length live
stock cars should effect considerable
economies to Michigan shippers, says
the Michigan State Farm Bureau traf-
fic department.

Supplement No. 8, Kelly's Excep-
tions to the Official Classification, sets
forth that effective October 15, the
same minimum weights on live stock
will prevail for cars thirty-seven feet
six inches in length up to and includ-
ing forty feet and six inches. Hereto-
fore, the foregoing minimum weights
have applied to live stock cars from
thirty-seven feet six inches up to and
including forty feet three inches. With
a number of live stock cars in Michi-
gan forty feet six inches long, many
Michigan shippers were being obliged
to pay the next minimum weight fig-
ure, which meant the addition of 2,000
pounds to their freight charges for
three inches of car length. One Michi-
gan railroad has 629 such over-length
live stock cars.

LIVE STOCK COMMITTEE OF FIF- TEEN MAKES RECOMMEN- DATIONS.

THE Farmers' Live Stock Commit-
tee of Fifteen, appointed by Presi-
dent J. R. Howard, of the American
Farm Bureau Federation, has complet-
ed its report.

It recommends the organization of
a great national live stock producers'
organization, builded around efficient
live stock marketing; the establish-
ment at the terminals of producers'
live stock commission associations,
with allied stocker-and-feeder compa-
nies; the strengthening of the local
cooperative live stock shipping asso-
ciation movement; the working out of
an orderly marketing program by the
board of directors of the National Live
Stock Producers' Association; the es-
tablishment by the same agency of a
transportation department to cooper-
ate with the American Farm Bureau
Federation and the State Farm Bu-
reaus; the interpretation of live stock
statistics, and cooperation with the
American Farm Bureau Federation in
extending the market for meat.

Milk and Tuberculosis

OUT in Edgar county, Illinois, a farmer had his herd of cattle tested for tuberculosis. One cow reacted. Now the farmer thought he knew more about the value of tuberculin tests than the state inspector. He thereupon removed the ear tag from his infected cow and, with much seeming generosity, presented her to his hired man for wages.

There were seven children in the hired man's family, his wife, a pig and a cat. All save two of the children, the farmer and his wife, drank milk from the tuberculous cow. The five children, the pig and the cat have all contracted the disease. This seemingly generous farmer has thereby been responsible for introducing into a poor family this disease. He may even be the indirect cause of a resulting death and be liable to the charge of manslaughter.

So much for that one particular case.

Bovine tuberculosis can be transmitted from cows to human beings. The milk from tuberculous cows frequently carries the germs of tuberculosis. Since children are the ones who drink the most milk, bovine tuberculosis is found more among them than among adults. Moller, for example, said that among 2,048 adults with tuberculosis, only two per cent were of the bovine type, mostly of the abdomen and glands. Only half of one per cent of all bovine tuberculosis is of the lungs. However, eighteen per cent of a group of children who died of tuberculosis were found to have been infested with the bovine bacillus. Probably eight per cent of all the tuberculosis deaths are due to bovine diseases.

Under five years of age bovine bacilli are supposed to be responsible for sixty-one per cent of tuberculosis of glands, fifty-eight per cent of abdominal tuberculosis, sixty-six per cent of generalized tuberculosis and tuberculous meningitis, twenty-seven per cent of tuberculosis of bones and joints. One authority says that ninety per cent of the glandular form in Edinburgh is of bovine origin. Moreover, in the case of both cows and humans the disease does not always manifest itself where the germs get in. Otherwise, all bovine tuberculosis would be likely to be in the digestive tract. Children who drink the milk of tuberculous cows may have no trouble there but may show the disease in remote parts of the body, as in the knee, the hip, the spine and the lungs.

Although children do not always die from bovine tuberculosis, if they recover, they are likely to be either disabled or crippled.

The cow is an animal we ordinarily consider friendly and harmless. Yet a cow sick with tuberculosis may be more dangerous in a community than a roaring lion. It has been estimated that in New York State seven per cent of the cows are tuberculous; of those slaughtered in London it is estimated that twenty-five per cent are. In order to avoid the very serious danger to man of tuberculosis in cattle careful inspection of all dairies is necessary. There should be inspection also of all those whose work about cows and in dairies, both in order that germs may not get into the milk after it leaves the cow and that the healthy cows may not become infected. Most cities have such regulations for the examination of the milk supply and utmost care should be taken in the enforcing of these.

Milk that comes to big cities often travels a great distance. It is sometimes twenty-four hours old when delivered at the door. Milk that is old, or has been allowed to be warm in transit is likely to have several times

as many germs as that which is fresh and has been kept cold. One night, three thousand cans of milk were poured into the sewer in New York City because its temperature had not been kept as low as it should be. Good milk inspectors take no chances for there is no better food on which to feed germs than milk.

As a matter of safeguarding health, even with the best inspection, milk for babies should be pasteurized. This is done by heating the milk to one hundred and forty-five degrees Fahrenheit and allowing it to remain at that temperature for twenty minutes.

Rarely is the meat of tuberculous cattle sold in this country, for we have rigid laws condemning these animals for food. Other animal products, however, such as butter and cheese, may contain germs. It is milk especially which must be most carefully inspected for that is the food of our babies and children, the future men and women of our country.

In this country last year 132,000 persons died from tuberculosis and of that number 12,000 were children under five years of age. Is it not necessary that everyone should join in the fight to stamp out this disease? To help expose such cases as that of the Illinois farmer and to cooperate in working for better milk and less tuberculosis among children, the National Tuberculosis Association and its 1,200 affiliated associations ask you to buy Tuberculosis Christmas Seals in December.

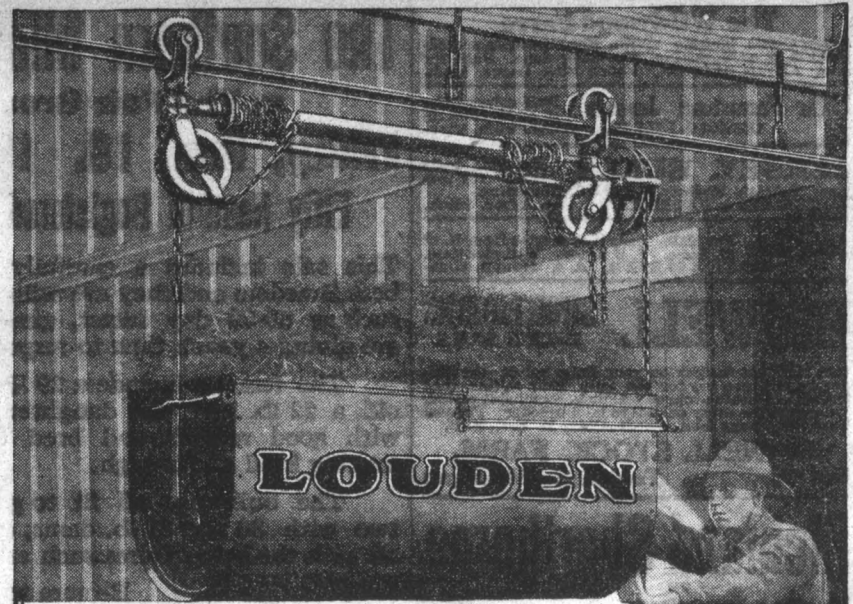
BALANCED RATION FOR DAIRY COWS.

Please give me the necessary ingredients to make up a well-balanced ration. I have shredded cornstalks, bean pods, good mixed hay and chop feed. I am feeding two parts of old oats, one part corn by weight, one pound for every four pounds of milk. —M. R. K.

Your ration is deficient in protein. They are all good foods but a cow cannot get sufficient protein out of them to do her best in production. I would add wheat bran and oil meal. Mix one part wheat bran with your three parts oats and corn, and besides, feed each cow two pounds of oil meal each day and in addition to the oil meal, one pound of your mixed grain ration for every four pounds of milk as you are now doing. The cow, of course, should have all the roughage feed that she will eat up clean. —C. C. L.

GOOD DAIRY CATTLE IN CLOVERLAND.

THE largest and without a doubt the most uniformly good dairy cattle exhibit in the upper peninsula," was one enthusiastic statement of Supt. D. L. McMillan, of the Upper Peninsula Experiment Station, who assisted Prof. O. E. Reed, new head of the dairy department of the Michigan Agricultural College in judging the Holsteins and Guernseys, Jerseys and Brown Swiss at the Gogebic County Fair. This is an excerpt from County Agent Gunderson's news letter just appearing, which notes that, "for the first time in the history of the Gogebic County Fair, a pure-bred Brown Swiss sire was shown and attracted much interest." The judging area was found inadequate in size, although recently enlarged, when Class 12, calling for Holstein cows four years old or over, pure-bred and registered, was requested to be judged. Thirteen large Holsteins were led out and placed side by side, yet the highest honors of the fair went to an exhibit of Guernseys, owned by Charles J. Olson, of Sunset Guernsey Farms. —L. A. C.



Biggest Labor Saver on the Farm

Every day there is some barn cleaning to do—and even if it takes only the average of an hour a day you are spending over a month every year—just cleaning your barn. You can actually save fully two thirds of this time by using a Loudon Manure Carrier to do this job. Figure it out—the Loudon Carrier will pay for itself the first year in the saving of time alone, and the saving goes on year after year as long as the barn stands.

In addition the Loudon Carrier takes all that drudgery out of this hard disagreeable chore. It takes the equal of five wheelbarrow loads of manure at a single trip—takes it clean without dripping or scattering—dumps it directly into the spreader. Operates so easily on roller bearing trolleys that a 12-year-old boy finds the job a pleasure. You can install a Loudon Manure Carrier in your barn just as it stands, at small cost. It is one of the most profitable investments any farmer can make.

New Low Prices on Loudon Equipment

Our entire line of Labor-Saving Barn Equipment has been repriced. We have anticipated all probable and possible reductions in material and labor costs for months to come and—passed every cent of these savings on to our customers in these new low level prices. No barn equipment of anything like the Loudon quality is so low priced.

Send Coupon for These Loudon Books Today

Loudon 224 page catalog tells all about Loudon Labor Saving Barn Equipment including Stalls and Stanchions which give cows pasture comfort in the barn, Loudon Feed Carriers that bring feed for 20 cows at a single trip, Water Bowls that increase milk yield 25% to 40%, Animal Pens, Hog House Equipment, Cupolas, Ventilators, Barn and Garage Door Hangers, Hay Unloading Tools—Everything for the Barn. A handy reference book that costs you nothing.

Service to Barn Builders. The Loudon Barn Plan Book sent without charge, shows many barns of different styles, with full description, also illustrations of detail construction, chapters on concrete work, silos, etc. If you will tell us what kind of barn you have in mind, number and kind of stock you wish to house, we will send you blueprints and suggestions to meet your requirements; no charge or obligation.

The Loudon Machinery Company
1931 Court St. (Established 1887) Fairfield, Iowa



Name..... State.....
P. O.

CATTLE

"Top Notch" Holsteins

Another Bargain In Young Bulls

This week we are offering two very desirable young bulls.

No. 1. Born Sept. 23, 1920, is a richly bred bull, tracing to some of the greatest producing animals of the breed.

His 6 nearest dams average 27.99 lbs. butter.

His 4 near dams average 30.47 lbs. butter.

Handsome, marked in solid colors—about half and half. His individuality is very superior. Would be hard to find an animal nearer perfection. His dam is sure to be a heavy milk producer. In her first milking year she gave 10,021 lbs. milk—a larger two-year old record than many of the most famous cows made in their two-year old form.

Price \$150.00 f. o. b. Howell.

No. 2. Born Sept. 21, 1920, is from a good A. R. O. daughter of a cow that produced 18,986 lbs. milk and 750.82 lbs. butter in one year, and is from a son of a 30 lb. cow that produced a 31 lb. daughter who in turn produced a 31 lb. daughter.

His 6 nearest dams average 26 lbs. butter. Handsome, marked in solid colors—a little more black than white, and like bull No. 1, a very fine individual. Price \$125.00 f. o. b. Howell.

McPherson Farms Co., Howell, Mich.

All herds under U. S. Supervision.

The Traverse Herd

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

TRAVERSE CITY STATE HOSPITAL

Traverse City, Mich.

A BLUE RIBBON WINNER

YOUNG BULL

On the 1921 Show Circuit For Sale at a low price. Out of an A. R. O. granddaughter of Pontiac Kora dyke. Sired by our SENIOR SHOW BULL, Model King Segis Glista 32.37 lbs.

GRAND RIVER STOCK FARMS,

111 E. Main Street, Grand Haven, Michigan.

Herd Under State and Federal Supervision

Four Reg. Holstein

heifer calves 4 weeks old. Price reasonable for quick sale.

CHAS. S. RILEY R. L. Metamora, Mich.

Holstein

Friesian heifer and bull calves, purebred registered and high-grade. Price \$30 up. Splendid individuals and breeding. Write us your requirements. Browncroft Farms, McGraw, N. Y.

Reg. Holstein Friesian

bull calves sired by a grandson of King of the Pontiac's, ages from six months to one year old, nicely marked and good individuals priced to move them to make room for winter calves. Herd under Federal and State supervision. Haven't had a reactor in the herd. Henry S. Rohlf, R. L. Akron, Mich.

Holstein-Friesian

pure-bred bull calves, also good grade heifers; tuberculin tested herd. Prices are right. Larro Research Farm, Dept. A, North End, Detroit, Mich.

Cluny Stock Farm

Offers the 10 mos. old bull.

Cluny Maplecrest Colantha Silver

No. 326204, Born Mar. 22, 1920

Sire—Maplecrest Application Pontiac

Sire's dam, 35 lb. butter 7 days, 1344 lbs. butter, 23421.2 lbs. milk in year. Maplecrest's 24 A. R. O. daughters average 20.2 lbs. butter, average 420.3 lbs. milk at 2 y. 11 m. 8 s. o. daughters average 14136.8 lbs. milk and 630.44 lbs. butter at 2 y. 7 m. 6 of these 10 months records.

Dam—a 22 lb. Jr. 4 yr. old granddaughter of Colantha Johanna Lad.

Dam's Dam—milked over 145,000 lbs. in 14 milking periods.

He means increased production for the herd he heads. Price \$150.00

R. B. McPHERSON, Howell, Mich.

Four 32 lb. Yearling Bulls

Sired by SEGIS KORNDYKE DENILANDER, a 32 lb. son of a twice Michigan State Ribbon winner; her dam 29½ lbs. One these calves from a 30 lb. dam, one a 28½ lb. dam, one a 19 lb. 3 yr. old with only ¾ udder, one 16 lb. 2 yr. old. Two of dams are daughters of King Segis Pontiac, a 37 lb. son of King Segis. Federally tested June 10. Herd under State and Federal supervision. Priced at half value.

A. G. WADE, White Pigeon, Mich.

Pull Bargain, \$100 gets a light colored bull ready for

service born Apr. 11, 1920, from 21.51 lb. dam, and sire whose six nearest dams av. 33.34 lbs. butter 7 days. Herd under state and Federal supervision. Oscar Wallin, Wisconsin Farm, Unionville, Mich.

Herefords

Repeaters, Beau Donalds, Fairfaxes, and Farmers represented in our herd. Repeater 173rd, a son of old Repeater, at head of herd. Both sexes and all ages for sale.

ALLEN BROS.,

(Farm at Paw Paw, Mich.)

Office 616 So. West St., Kalamazoo, Mich.

Herefords For Sale

1 Polled bull calf, grandson of Bullion 4th, 1 horned bull, 1 year old, for sale cheap.

COLE & GARDNER, Hudson, Mich.

Jersey Thoroughbreds

Few cows and bull calves. Best breeding line. Guaranteed. Tuberculin tested twice a year. If you have no money will take bankable note. E. W. Vasvary, 411 Free Press Building, Detroit, Mich., Main 1267.

BUTTER BRED JERSEY BULLS

FOR SALE

CRYSTAL SPRING STOCK FARM, Silver Creek, Allegan County, Michigan.

The Wildwood Farm

Jersey Cattle, Majesty strain, Herd on State accredited list, R. of M. testing constantly done. Bulls for sale. ALVIN BALDEN, Phone 143-5, Capac, Mich.

Lillie Farmstead Jerseys Bull calves from R. of M. cows, COLON C. LILLIE, Coopersville, Mich.

JERSEY BULLS For Sale bulls ready for service. Raleigh, Majesty, Oxford Lad breeding. WATERMAN & WATERMAN, Ann Arbor, Mich.

Jersey Bulls For Sale ready for service from R. of M. dams. T. B. tested. Will give time. SMITH & PARKER, R. 4, Howell, Mich.

BIDWELL SHORTHORNS

that will put weight on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. We guarantee every animal to be a breeder. Federal Test. One hour from Toledo, Ohio, N. Y. C. R. R.

BIDWELL STOCK FARM, Box D, Tecumseh, Michigan

Richland Shorthorns

We offer a few choice Scotch heifers with calves at foot. This is good foundation stock and the calves are all from top sires. Prices reasonable. Write your wants and see the cattle.

C. H. PRESCOTT & SONS, Office at Tawas City, Mich., Herd at Prescott, Mich.

Shorthorns. Bull calves for sale from the best milking blood obtainable. ROSEMARY FARMS, Williamston, Mich.

BUY SHORTHORNS of Central Michigan Breeders' Association at farmers' prices. Write for sale list to M. E. Miller, Sec'y, Greenville, Mich.

BUY THE KIND

that are improving the breed. We won grand champion bull, junior and reserve champion bull, first in calf herd and first in get of sire at the Michigan State Fair. Some promising young bulls for sale. Get our prices. OARR BROS. & CO., Bad Axe, Mich.

Milking Shorthorns, accredited herds, males and females, low prices. Davidson and Hall, Beland and Beland, Tecumseh, Mich.

For Sale Scotch and Scotch Topped males and females, any age, prices right. Address Northwestern Michigan Breeders' Ass'n, Roy F. Zimmerman, Sec'y, Traverse City, Mich.

Shorthorns at bargains. Cows and young bulls ready for use. Spring calves, either sex; also Poland China pigs. Robert Neve, Pierson, Mich.

Milking Shorthorns of best Bates breeding, bulls, cows and heifers for sale. E. H. KURTZ, Mason, Mich.

Reg. Red Polled Cattle, our herd headed by Famous Charmer, Grand Champion Michigan State Fair, Under State and Federal supervision, no cattle for sale at present. Westbrook Bros., Ionia, Mich.

HOGS

Berkshire spring pigs, either sex, \$10, \$12 and \$15 according to age. Also fall gilts and yearling sows. CHASE STOCK FARM, Marlette, Mich.

EVERY'S BERKSHIRES. Winners at International 1920. State Fair 1920-21. Choice large type spring pigs, either sex. Satisfaction guaranteed. W. H. Every, Manchester, Mich.

Duroc Jerseys A few extra good fall boars, and a choice lot of spring boars of the heavy boned type popular blood lines at reasonable prices. BRODT & BERNIS, Monroe, Mich.

Brookwater Duroc Jerseys

SPRING BOARS sired by Panama Special 55th, Big Bone Giant Sensation and Brookwater Demonstrator. The best of the breed. Order one by mail or come to the farm. You will like them when you see them. Prices reasonable.

BROOKWATER FARM, Ann Arbor, Mich. H. W. Mumford, Owner J. B. Andrews, Mgr.

DUROC JERSEYS: A few choice bred gilts for sale. CAREY U. EDMONDS, Hastings, Mich.



Spring pigs by Walt's Orion, First Sr. Yearling Detroit, Jackson, Cd. Rapids and Saginaw 1919 **Phillips Bros, Riga, Mich.**

Duroc Jersey Swine

Breeding stock for sale at all times at reasonable prices. If in need of a high class boar, or sow any age write, or better, come to farm. Best of Blood line and we guarantee you satisfaction. Herd boars, Panama Special 11th and Home Farm Wonder. Booking order for fall pigs at \$15 each.

Thos. Underhill & Son, Salem, Mich.

Woodlawn Farm Duroc hogs are from select breeding stock, well mated for size, type and color. Herd boars, sows and pigs, will ship C.O.D. and furnish Reg. certificate. W. E. Bartley, Alma, Mich.

PEACH HILL FARM

Offers gilts sired by or bred to **Peach Hill Orion King 152489** INWOOD BROS., Romeo, Michigan

DUROC SOWS and gilts bred to Jack's Cherry Orion King No. 169250 Son of the \$10,000 boar owned by Longview Farm, Le Summit, Mo. also young boars ready for service, out of good sows. Apply **THE JENNINGS FARM,** Bailey, Mich.

DUROC JERSEYS

spring boars that will improve your hogs, of Orion Cherry King, Col. and Pathfinder breeding, at reasonable prices. Write us your wants. Bred sows and gilts all sold. **W. C. TAYLOR,** Milan, Mich.

The Southern Michigan Breeders' Sale

at The Fair Grounds, Jackson, Mich.

Friday, Nov. 18, 1921, at 12:00 o'clock

Fifty Head of Registered and A. R. O. Holstein Cattle

This sale includes a carefully selected lot of cattle from some of the best Breeders and they are selling them with a 1 possible guarantees such as 60-90 day retest, guaranteed breeders, and besides this they are giving a year's time to responsible parties.

The females include a 29 lb. cow, a 25 lb. cow, a 25 lb. three year old, a 22 lb. 3 yr. old daughter of a 28 lb. cow and many others with good records and bred to good bulls. They are the money making kind all through.

The bulls are all fit to go out and head good herds. There are two with 30 and 31 lb. dams, one with a 25 lb. three yr. old dam and all with the best of sires such as sons of 38 lb. cows.

Be sure to attend this sale.

Col. D. L. Perry, Auctioneer **Albert E. Jenkins, In the Box** For Catalog address,

The Michigan Holstein-Friesian Assn, Sale Mgrs.

Old State Block, Lansing, Mich.

O. I. C. HOGS

all ages sired by Callaway Edd 1918 world's grand champ. boar and C. C. Schoolmaster 1919 world's grand champion also Wonder Big Type and Giant Buster. Write your wants, all stock shipped on approval.

CRANDELL'S PRIZE HOGS, Cass City, Mich.

Farewell Lake Farm

Breeders of the Real Large Type

Poland China Hogs

Sale Wed. Nov. 9

This offering will consist of

Twenty sows
Three tried sows
Seventeen Spring Gilts
Twenty Head of Spring Boars.

Everything Double Treated and Certificate of Treatment with each and every Hog.

I will transfer and record at my expense.

W. B. RAMSDELL,
R. F. D., Hanover, Mich.

Write for Catalog

Large Type Poland Chinas

Spring pigs of either sex. Sired by Latest Fashion, by Fashion Wonder. A few good open gilts and one yearling boar. Priced to sell. Write or come and see them.

J. L. SIMPSON,
R. R. 2, Hartford, Mich.

DUROC BOARS at \$20 to \$40, these are good ones sired by Michigan Orion Sensation, Michigan Demonstrator, Pathfinder Prince and Big Bone Giant Sensation. Inspection invited. Satisfaction guaranteed. Michigan Farm, Pavilion, Mich., Kalamazoo Co.

Duroc Have some choice spring boars sired by Great King Orion Col. No. 18945, double immune, priced reasonable. HARRY FOWLER, Sturgis, Mich.

DUROC JERSEYS Bred gilts all sold. Choice spring boars by Brookwater Demonstrator. RUSH BROS., Oakwood Farm, Romeo, Mich.

Pure-Bred Duroc Jersey Hogs; we usually have good boars and sows of all ages for sale. Reasonable prices. Larro Research Farm, Box A, North End, Detroit, Mich.

DUROC JERSEYS Am booking orders for fall pigs. E. D. HEYDENBERG, Wayland, Mich.

For Sale: Duroc Jersey Boar 1 year old, 3d West Michigan. Price \$50. Also several good spring boars and gilts from prize winning stock, at reasonable prices. Frey Bros., R. 1, Caledonia, Mich.

Chester Whites quality March boars and fall pigs at a very low price, satisfaction guaranteed. F. W. Alexander, Vassar, Mich.

CHESTER Whites.—Fall pigs only, for sale. A combination of Wildwood Prince and Big Sensation blood lines. G. D. Springer, R. 6, Grand Rapids, Mich.

Raise Chester Whites

Like This
the original big producers

I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at six months old. Write for my plan—More Money from Hogs. G. S. BENJAMIN, R. F. D. 10, Portland, Michigan

O. I. C. BOARS

shipped O. O. D. J. CARL JEWETT, Mason, Mich.

O. I. C's. Special prices on spring pigs from prize winning stock. Must be sold to make room. WEBER BROS. Phone R. O. 408, 10 mile Rd. W., Royal Oak, Mich.

O. I. C's. one yearling boar and last Big growthy stock, 1/2 mile west of Depot, Olita Phone, OTTO B. SCHULZE, Nashville, Mich.

O. I. C's. One yearling boar left, April PETERSON, R. 2, Ionia, Mich. Elmhurst Farm.

For Sale O. I. C. Serviceable Boars H. W. MANN, Dansville, Mich.

Central Mich. O. I. C. Swine Breeders Ass'n.

Hogs of all ages of popular blood lines. Every sale guaranteed by association.

DR. H. W. NOBLES, Sales Mgr. Coral, Mich.

O. I. C. and Chester White Swine. Strictly Big Type with Quality. I am sold out of everything but Spring pigs. Have the finest lot I ever bred. Meet me at the State Fair and other leading fairs of the State. And see a sample of our hogs and pigs. NEWMAN'S STOCK FARM, R. 4, Marlette, Mich.

O. I. C. Spring boars and gilts no akin. We breed and own the Grand Champion Boar at West Mich. State Fair. We ship C. O. D. and Reg. free. GEO. M. WELTON & SON, Alto, Mich.

O. I. C's, Boars and Gilts from April and and quality guaranteed. Ship C. O. D. Elm Front Stock Farm. WILL THORMAN, Dryden, Mich.

O. I. C's. 20 choice young boars, also fall pigs. CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C's Choice April boar from a grand daughters of Wildwood Prince and from a son of Petroleum Giant. A. J. Barker & Son, Belmont, Mich.

FOR SALE:

Registered Spotted Poland China Boar and Gilts ready for service, from Spotted Lucile the First, No. 48748, first prize winner at Detroit in 1920, sired by one of Michigan's greatest boars, Michigan Giant, No. 16165, owned by Greuber of Frankfort, Mich. Prices reasonable. Address W. I. BEARCE or CHAS. BABCOCK, Ovid, Michigan.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

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

Indigestion.—Will you tell me what would cause a cow that milked six or seven quarts of milk to suddenly reduce her milk flow to one pint or less? Her milk yield is uneven, but never more than two quarts. She has been one of my best cows. Mrs. C. M., Avoca, Mich.—An acute attack of indigestion, or purging, or any ailment which produces high fever, will suddenly check the milk flow, or materially lessen it. Give her a tablespoonful of powdered gentian at dose in feed two or three times a day and change her feed.

Loss of Appetite.—I have a hog that will weigh 200 pounds which seems to have lost his appetite for food. He seems to be uneasy, but I don't believe he is in pain. R. W. G., South Branch, Mich.—Give him three ounces of castor oil or two ounces of epsom salts to open bowels. Also give five-grain doses of quinine three times a day. Is he short of exercise and is his bowels active? A change of feed is perhaps what is required, or you may have been feeding too much grain.

Diarrhea.—I have a heifer calf five weeks old which was never allowed to suck its mother, but ever since it was born it has had diarrhea. Have been giving it a raw egg, with its corn and oat meal, adding some sugar and salt. Home remedies have failed in this case. Mrs. G. V., Mattawan, Mich.—Give ten grains of salol at a dose three or four times a day. Clean and disinfect your calf barn and keep it so. The infective germs may be lurking in your calf stable.

Sore Comb.—I sent away for a cockerel expecting to use him for breeding purposes in the spring; at or soon after I got him I noticed a bunch on the wattles and comb; the comb was very sore; I removed scab, painted wound with iodine but the wattles and comb crack and don't heal. A discharge of yellow pus comes from the sores. Mrs. D. G., Reading, Mich.—Apply peroxide of hydrogen, and ten minutes later apply equal parts oxide of zinc and boric acid.

Congestion.—We have a ten-year-old horse that is acting strangely. For the past three or four days he has spells of stiffness, hardly able to walk, but after slight exercise he improves. He seems to have trouble in raising his head. His feed has been cracked corn and bran, equal parts fed dry, also recently have in addition fed green sweet corn just cut, increasing the ration from two to eight stalks twice a day. This corn is immature and infected with the corn borer. J. R., Breedsville, Mich.—Keep him warm, especially when weather changes from hot to cold. Change feed and give him a teaspoonful of acetate of potash in feed or water two or three times a day. Discontinue feeding green sweet corn, unless it is of good quality.

Stocking—Sluggish Kidney Action.—I have a horse about ten years old; left hind leg swells and his kidneys do not act free. E. D. S., Monroe Co.,—Give him a teaspoonful of acetate of potash in drinking water two or three times a day, whenever you believe he requires a kidney stimulant. Bandaging and daily exercise will help leg.

Rheumatism.—I have a cow with a good appetite, giving nice mess of milk, but when down has trouble in getting up. J. J. S., Belleville, Mich.—Give her one dram of fluid extract of nuxvomica and one dram of potassium iodide in feed or water two or three times a day. If you believe her back is weak, apply mustard and water twice a week. Does she get daily exercise?

Garget—Obstructed Teat.—I am an interested reader of the Michigan Farmer and would like to have you prescribe for my Guernsey heifer which came fresh three weeks ago, at which time her udder caked badly, caking is now all gone, but one teat is blocked. When teat is pressed it seems as though a string ran through it; she is hard to milk. Would it help to use a milk tube? If so, what length? C. E. S., Saginaw, Mich.—If her teat is long you should use tube three and one-eighth inches long, but don't forget to boil it for fifteen minutes each time before use; if not, you will perhaps infect her udder. Apply iodine ointment to teat once a day. If she has a teat polypus it could be removed through teat canal.

Dairy Farming

WILL ENDEAVOR TO GET DAIRY EXHIBIT.

ACTION was taken at the special meeting of the directors of the Michigan Allied Dairy Association held in Lansing recently, looking toward obtaining for the annual convention and dairy show to be held in Saginaw February 14-17, the exhibit that was featured at the National Dairy Show held at the Minnesota State Fair Grounds, St. Paul, early this month, and which was gotten up by the dairy division of the United States Department of Agriculture at an expense of about \$25,000. Mr. Glen Overton, of Allegan, president of the Allied Dairy Association, will confer with officials in Washington next week with reference to ways and means for obtaining the exhibit in question. The association will also endeavor to feature exhibits of the State Department of Agriculture, and the Michigan Agricultural College, and in addition there will be a complete line of commercial exhibits of dairy machinery and supplies.

DAIRY ASSOCIATION PLANS NEW ACTIVITIES.

IN considering the future policy of the Michigan Allied Dairy Association the directors took cognizance of the fact that the time is opportune for more active work designed to speed up dairy production and marketing economics, and voted to instruct the executive committee to submit a plan or program of work to be undertaken by the association at this time.

H. D. Wendt, of Lansing, who has been acting as general secretary of the association since it was first organized in February, 1920, and who until recently was in charge of the bureau of dairying of the State Department of Agriculture, has agreed to continue with the association on a full time basis, at least up until the first of March, and will be in active command with reference to the management of the convention and show to be held in Saginaw in February as well as the other activities to be undertaken by the association, directly and in cooperation with other agencies, such as the State Farm Bureau, the College and the State Department of Agriculture and the United States Department of Agriculture.

EVAPORATED MILK FACTORY IS OPENED.

AFTER several weeks' preparation in converting its plant from a powdered milk manufacturing factory, the International Milk Products Company has reopened at Bad Axe for the making of evaporated milk.

The plant was built five years ago to make powdered milk, but when the bottom dropped out of the milk market a year ago, the company decided to turn to evaporated milk. The plant will have a daily capacity of a carload of condensed milk, or 50,000 cans, requiring about 100,000 pounds of raw milk. This will mean a ready market for the milk produced in the Thumb, one of the most promising dairy sections of the state.—MILLS.

DAIRY DEVELOPMENT IN CENTRAL MICHIGAN.

CENSUS statistics just given out at Washington show that Michigan is rapidly becoming one of the leading dairy states of the nation. The increase in milk production in the past

ten years has been over fifty per cent.

The entire state has shared in this increase, but by far the more rapid progress has been made in central Michigan, of which Saginaw county is the pivot. The Thumb district and the counties along the Huron shore as far as Alpena, in the past ten years have more than doubled their dairy herds, while cheese factories, butter factories and cream buying stations have sprung up at numerous shipping points.

One has but to drive through the rich farming territory of Arenac, Gladwin and Ogemaw counties to learn these facts. Nearly every town of any consequence has its butter or cheese factory, and competition in the buying of cream is furnished by from one to three stations which ship cream to Bay City, Saginaw or Detroit, while nearly every cross-roads store is also a cream buying station. Dairying and its co-partner on the farm, stock raising, is rapidly making eastern Michigan a land of well-to-do-people.—M.

MILK WITH BAD FLAVOR.

The milk which we are getting from our cows seems to have a flavor not liked by the children, particularly the baby. Do you think silage taints the milk?
R. L.

Good silage has no bad effect on milk, but should not be fed exclusively. In this case, probably the silage was bad, or perhaps for some reason did not agree with that particular cow, for cows have their peculiarities as well as humans. The use of herd milk for feeding the baby should rectify the trouble. If the mother wishes to furnish us with more detailed data we shall be glad to investigate the matter more completely.—R. GIBBONS, M. A. C.

TURNING STRAW INTO MANURE.

A NOTABLE discovery of special interest to gardeners and farmers has just passed out of the laboratory into the practical stage. A bacillus with such a powerful digestion that it can "break down" cellulose—the toughest part of vegetable growth—was discovered and multiplied at the Rothamsted Experimental Laboratories some time ago. It has so flourished that its digestive powers have passed all expectation, and it is now capable of taking the place of cattle and horses.

The special work to which it is being harnessed is the breaking down of straw. With the help of some other kindly bacteria and bacilli it will convert straw into the best "farmyard manure." This achievement has been watched for some months in the laboratory with unvarying success. Straw has been converted into the best manure without the aid of any animal big enough to be visible.

The method is now proving equally successful on a large scale. Tons of straw so treated are quickly and cheaply converted into a fertilizer that has all the mechanical as well as the chemical virtue of the ordinary farmyard manure.

The straw is twice watered, then treated with a mild sprinkling of a nitrogenous solution, and the benevolent bacteria go to work at once, multiplying into incalculable millions within a few days. Farmers who have seen the product are convinced of its value, which, indeed, has been proved by a number of plot tests.—M. MEREDITH.

Says Sam: If the folks who are always throwing cold water would only join the fire department, maybe somebody'd be glad to see them once in a while.

NO

—Sportos won't freeze, crack, peel or leak



NO "shoddy", no duck fabric, no rubber substitutes used in this shoe. Only the choicest pure Para rubber that enters the Goodyear Rubber Company's factory goes into the Gold-Seal SPORTO.

So a SPORTO won't freeze like a duck-fabric shoe does, for it sheds water instantly. Neither will it crack, peel or leak, for the rubber used is pure.

Outwear Three Ordinary Pair

For only a little more than you would pay for just common quality, you can get the wear of three ordinary pair of rubber shoes from a single pair of SPORTOS. And besides, SPORTOS are lighter and more pliant—keep your feet from feeling tired and heavy at the end of the day.

Ask Your Dealer For Genuine
GOLD-SEAL Rubber Footwear.

Made Only by GOODYEAR RUBBER CO., of New York
Milwaukee, Wis., Branch: 380-382 East Water St.

200% Profit

The equivalent of a bushel of corn, worth from 30 to 40 cents, when fed to good cows will produce about three pounds of butter worth from \$1.00 to \$1.50—at least 200% clear profit, as the manure, skim-milk and calf pay for the cost of care and housing.

How can you make money easier? There never was a time when the production of butter-fat was more profitable, with cheap feed and high prices for butter-fat.

A De Laval Separator enables you to get the most profit from your cream—it skims cleaner, turns easier and lasts longer than any other.

De Laval Prices Reduced

Take advantage of the 1922 reduced prices, available now, which put De Laval Separators on practically their pre-war basis. You may be paying for a De Laval and not getting it by using a cream waster.



Over 2,500,000
in use the world over

See your De Laval agent or write us for full information.

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61 Beale Street

Sooner or later you will use a
De Laval

HOGS

L.T.P.C. \$15, \$20 & \$25

We have a fine lot of fall pigs sired by Harts Black Prince and Right Kind Clan. HART, FULCHER and CLINE, address F. T. Hart, St. Louis, Mich.

LARGE TYPE POLAND CHINAS

Spring pigs of either sex. Sired by F's Clansman Grand Champion Boar 1920 and by Smooth Buster 1st. Jr. yearling 1920. Priced to sell. Write or see them. A. A. Feldkamp, R. 2, Manchester, Mich.

Additional Stock Ads. on Page 447

LATEST MARKET REPORTS

GRAIN QUOTATIONS

Tuesday, November 1.

Wheat.

Detroit.—Cash No. 2 red \$1.20; No. 2 mixed and No. 2 white \$1.17
Chicago.—No sales reported.
Toledo.—Cash No. 2 red \$1.17½;
May \$1.22.

Corn.

Detroit.—Cash No. 2 yellow 54c; No. 3 yellow 53c; No. 4, 50c.
Chicago.—No. 2 mixed 46½¢@47¼¢;
No. 2 yellow 47½¢@48¼¢.

Oats.

Detroit.—Cash No. 2 white 30c; No. 3 white 36c; No. 4, 31¢@33¢.
Chicago.—No. 2 white 34¼¢@35¢;
No. 3 white 30½¢@31½¢.

Beans.

Detroit.—Immediate and prompt shipment \$4.40 per cwt.
Chicago.—Choice to fancy hand-picked Michigan beans at \$5.25@5.50; red kidney beans \$8.50.

New York.—The market is steady
Choice pea at \$5.25@5.35; do medium \$4.50@5; kidney \$8.50@8.75.

Rye.

Detroit.—Cash No. 2 86c.
Chicago.—No. 2, 77c.
Toledo.—Cash 83c.

Seeds.

Detroit.—Prime red clover, cash at \$12.25; alsike \$10.75; timothy \$2.87½.
Toledo.—Prime red clover \$11.80; alsike \$10.50; timothy \$2.85.

Hay.

Detroit.—No. 1 timothy at \$19@20; standard and light mixed at \$18@19; No. 2 timothy \$17@18; No. 1 clover mixed \$15@16; No. 1 clover \$14@15; rye straw \$12.50@13; wheat and oat straw \$12@12.50 per ton in carlots at Detroit.

Feeds.

Detroit.—Bran \$20.50; standard middlings \$22; fine middlings \$25; cracked corn \$27; coarse corn meal \$24; chop \$21 per ton in 100-lb sacks.

WHEAT

The failure of pronounced bullish views on the wheat market outlook based upon immense European requirements, a small crop in the United States and possible drought in the Southern Hemisphere has left the market on uncertain ground. More liberal European harvests than expected, with splendid growing weather in Argentina, Australia and India and the government report on wheat holdings in the United States on October 1, have brought about a marked revision of opinion. Prices have held within a narrow range not far above the lowest level of the season. The decline of thirty cents a bushel since September 10 has discounted much of the change in the outlook and the market is marking time waiting to see more clearly how the supply and the demand factors are going to work out.

CORN

Corn prices are holding within narrow limits but are showing a firm undertone. Receipts have fallen off sharply. About two-thirds of the market supply is old corn and one-third new. The movement of new corn to market is expected to increase rapidly. The prospective reduction in the freight rates in the western half of the corn belt may delay shipments until it goes into effect. Husking returns generally show disappointing yields.

OATS

The oats market continues to be influenced in the main by the action of corn but may show more independence before long. The last weekly visible report showed a reduction of nearly 1,000,000 bushels, the first in many weeks. With stocks at terminals declining and the period of heavy receipts already past, the oats market may show more response to the shortage in this year's crop.

SEEDS

In spite of a small acreage and light yield of cloverseed, market receipts have been liberal as farmers are forced to sell to obtain cash. The market has declined slightly in the last two weeks but on the whole has held up well under the pressure to which it has been submitted. Timothy seed receipts on the other hand are declining as the heavy marketing season is past.

FEEDS

After a brief spurt due to fear of a strike, feed markets have become in-

active again. Prices show but little change on wheat feeds. Linseed meal and cottonseed meal are firmer, due to export inquiries. Storage stocks of all feeds are comparatively heavy.

HAY

Receipts of hay in distributing markets are fairly heavy but demand was fairly good most of last week and the prices are steady. Country loadings have decreased again as producers in western territory are inclined to wait until the reduction of about sixteen per cent in freight rates goes into effect. It is estimated that this will mean \$1.50 to \$2 a ton.

POULTRY AND EGGS

Egg prices advanced during most of the last week, reaching ultimately a level of about sixty-five per cent higher than the low point last spring. Fresh eggs have maintained an especially strong tone until the last day or two when demand began to turn more extensively to storage eggs. Receipts last week were considerably larger than in the preceding week and were nearly fifty per cent higher than in the corresponding week a year ago. The long continued advance in prices evidently has made the market slightly top-heavy and a moderate setback would not be surprising. Receipts of dressed poultry at the four leading cities are running more than one-third larger than at this season last year. Live poultry receipts also are heavy.

Latest quotations were as follows: Chicago.—Eggs fresh firsts 49¢@51¢; ordinary firsts 42¢@45¢ per dozen. Poultry, springs 20c; hens general run at 23c; roosters 14c; ducks 23c; geese 20c; turkeys 28c.

Detroit.—Eggs fresh candled 45¢@51¢ dozen. Poultry, hens 23c; roosters 14

@15c; turkeys 30c; ducks 24c; geese 20¢@21c.

BUTTER

Threat of a railroad strike which overhung the butter market until the close of last week increased the demand and brought about advances in values to new high levels for the season. An easier tone prevailed after the strike order was recalled. According to the report of the American Creamery Butter Manufacturers' Association, production is about twenty-five per cent larger than at this time last year. The rate of butter consumption is unusually high since comparatively heavy receipts have been absorbed without leaving a surplus and large quantities have been withdrawn from cold storage. Prices for 92-score fresh butter were:

Chicago 46c; New York 48½¢. At Detroit fresh creamery in tubs sells for 37¢@40c per pound.

APPLES

Apple markets continue on a rather even keel with A-2½-inch Baldwins still quoted at \$6.25@6.50 per barrel f. o. b. New York shipping points. In consuming markets Baldwins are quoted from \$6@7.50 per barrel, Greenings \$7.75@8.75; Grimes Golden \$8@9 and Jonathans \$8.50@9. Northwestern extra fancy Jonathans are bringing \$2.50 @3 per box for medium sizes.

BEANS

Prices for Michigan beans advanced early last week but declined toward the close, making little net change. Picking has been slow so that not all the sales for October shipment have been filled and on this account demand for November shipment has declined. Receipts are increasing, however, so that orders should be cleaned up more

closely before long. Prices for choice hand-picked stock f. o. b. Michigan shipping points are quoted at \$4.65@4.75 per 100 pounds for white beans. Dark kidney beans are bringing \$7.75 and light kidneys \$7.50.

POTATOES

Potato shipments increased again last week but remained considerably lighter than during the first half of October. Prices were slightly lower for the week. Bulk Northern round whites were quoted at \$1.50@1.70 per 100 lbs. f. o. b. shipping points. They were bringing only \$1.80@1.85 in the Chicago carlot market. New York shipping point prices are 20¢@30¢ higher.

WOOL

No new factors are visible in the wool market outlook. Prices maintain the firm tone which they have had most of the time for the last two months and mills are absorbing fairly large quantities although demand is somewhat irregular from day to day. Medium and lower grades are receiving more attention than earlier in the season. Trade in Ohio wools is extremely active. Foreign auctions are strong with prices showing a slight tendency to advance, both in Great Britain, Australia, New Zealand and South America. The woolen goods trade is not entirely satisfactory as the weather has remained too warm to stimulate retail sales. The Boston market is quoted as follows: Michigan and New York, delaine unwashed 31@33c; fine unwashed 26¢@27c; half-blood 28-29c; three-eighth blood unwashed 26c; quarter-blood unwashed 23½¢@24c pound.

CHEESE

The cheese markets held practically steady last week with eastern markets displaying a better tone than Chicago. Country markets declined early in the week but showed more firmness later on. Unlike the butter market, the strike seemed to reduce the demand for cheese as neither shippers nor buyers wished to have consignments caught en route. Receipts at Chicago, New York, Boston and Philadelphia ran about twenty per cent larger than in the preceding week and nearly twice as large as in the corresponding week a year ago. Prices for No. 1 American cheese were:

Chicago.—Flats 20½¢@21c; twins 20¢@20½¢; single daisies at 21½¢@22c; double daisies 21½¢; young Americas 20½¢@22c.

New York.—Flats 21½¢@23c; twins 21¢@22½¢; double daisies at 20¢@21c; young Americas 21¢@22½¢.

GRAND RAPIDS

Potato prices slightly stiffened in Grand Rapids this week as consumers entered the market for stocks and buying for shipping got under way again following the slump caused by the threatened freight tieup. M. S. Wiggins, local representative of the United States Bureau of Markets, is of the opinion that the market will be stronger on spring stocks, basing his belief on government statistics. The four-year average shows that 63,000 cars are usually shipped after October 22, but this year with the crop estimated 25,000,000 bushels short and the movement before that date unusually heavy, Mr. Wiggins estimates there remain only a supply equal to 2,000 cars per week to be moved to market during the remainder of the shipping season. For the past month shipments have averaged about 10,000 cars per week in the United States. Quotations are as follows:

Vegetables.—Potatoes \$1@1.15 bu; dry onions \$2@3.50 per cwt; celery \$1 box; head lettuce \$1 bu; carrots, turnips, beets and cabbage 75c@\$1 bu; squash \$1.50@2 per cwt.

COMING LIVE STOCK SALES.

Poland-China.—Nov. 9, W. B. Ramsdell, Hanover, Mich.

Draft Horse Sale.—Jan. 13, Michigan Agricultural College. R. S. Hudson, Secretary, Michigan Horse Breeders' Association.

Holsteins.—Nov. 16, Saginaw Valley Holstein-Friesian Breeders' Association, Saginaw County Fair Grounds.

Consignment Sale.—Nov. 18, Fair Grounds, Jackson, Michigan. Holstein-Friesian Association, Sales Managers.

Live Stock Market Service

Wednesday, November 2.

DETROIT

Cattle.

Receipts 210. Market slow.

Best handy wt bu steers	6.25@ 7.25
Best heavy steers	6.00@ 6.75
Best handy wt bu steers	6.25@ 7.50
Handy light butchers	4.75@ 5.25
Light butchers	4.00@ 4.50
Best cows	4.50@ 5.25
Butcher cows	3.00@ 4.00
Common cows	2.50@ 2.75
Canners	2.00@ 2.25
Best light weight bulls	4.50@ 5.00
Bologna bulls	4.00@ 4.50
Stock bulls	3.00@ 3.75
Feeders	5.25@ 6.00
Stockers	4.00@ 5.25
Milkers and springers	4.00@ 100

Veal Calves.

Receipts 310. Market steady.

Best	\$12.50@13.00
Others	4.00@11.50

Sheep and Lambs.

Receipts 4,980. Market steady.

Best lambs	\$8.25@ 8.50
Fair lambs	7.00@ 7.75
Light to common	5.00@ 6.00
Fair to good sheep	3.50@ 3.75
Culls and common	1.00@ 2.00

Hogs.

Receipts 2,860. Market is steady at Tuesday's close.

Mixed hogs	8.15
Heavies	7.25
Roughs	6.25
Stags	5.00

CHICAGO

Hogs.

Estimated receipts today are 18,000; holdover 7,966. Market steady. Bulk of sales \$7.35@7.75; tops \$8; heavy 250 lbs up medium, good and choice \$7.50@7.85; medium 200 to 250 lbs medium good and choice at \$7.60@7.90; light 150 to 200 lbs common, medium, good and choice at \$7.50@7.90; light lights 130 to 150 lbs common, medium, good and choice \$7.85@8; heavy packing sows 250 lbs up smooth at \$6.75@7.25; packing sows 200 lbs up rough \$6.25@6.85; pigs 130 lbs down medium, good and choice \$7.85@8.25.

Cattle.

Estimated receipts today are 9,000; market steady to higher. Beef steers medium and heavy weight 1100 lbs up

choice and prime \$9@12; do medium and good \$6@10.25; do common \$5@6; light weight 1100 lbs down, good and choice \$9.50@12; do common and medium \$5@9.50; butcher cattle heifers common, medium, good and choice \$3.65@9.50; cows common, medium, good and choice \$3.50@6.50; bulls bologna and beef \$3.10@6.25; canners and cutters cows and heifers \$2.50@3.50; do canner steers at \$3@4; veal calves light and handyweight medium, good and choice \$7.50@11.75; feeder steers common, medium, good and choice at \$5.25@7.15; stocker steers common, medium, good and choice at \$4@7; stocker cows and heifers common, medium, good and choice at \$3@5.25.

Sheep and Lambs.

Estimated receipts today are 34,000. Feeders steady, others 15¢@25c lower. Lambs 84 lbs down medium, good, choice and prime \$8@9.25; do culls and common \$5.50@7.75; spring lambs medium, good, choice and prime \$5.50@7.75; ewes medium, good and choice \$3@5.25; ewes cull and common \$1.75@3; yearling wethers medium, good and choice \$6.75@8.

BUFFALO

Cattle.

Receipts 10 cars; market is slow; prime shipping steers \$8.75@9; good to choice shipping steers \$7.50@8; light native yearlings, good quality at \$9.50@10.50; best handy steers at \$7@7.50; fair to good at \$6@6.50; handy steers and heifers \$6@6.50; western heifers \$5.50@6; state heifers \$4@5; light Michigan butchering heifers \$5.50@6; best fat cows \$4.50@5; medium to fair \$3@4; cutters \$2.50@3; canners \$2@2.25; light fancy bulls \$5.50@6; best heavy bulls \$5@5.50; heavy bologna bulls \$4@4.50; common bulls \$3.50@4; best feeders 700 to 800 lbs \$5.25@5.50; medium feeders \$4.50@5; stockers good \$4.50@5; light common \$3@4.50; best milkers and springers \$80@100; mediums \$40@60.

Hogs.

Receipts 10 cars; steady; heavy at \$7.75@8.00; mixed \$8.50; yorkers and pigs \$8.75@9.

Sheep and Lambs.

Receipts 10 cars; slow; top lambs \$9; yearlings \$6@6.50; wethers \$5@5.50; ewes \$4@4.50. Calves tops \$13; fair to good \$9@11; grassers \$3@4.



This Trademark is Your Protection

A Death-Blow to Remorse

Remorse—the little demon who gnaws at many a human heart.

Why tolerate him when you don't have to? Why not fool him when you can easily do so.

Disastrous fire and resulting loss make him smile.

Complete loss and full insurance coverage make you smile.

Careful as you are, fire can break out unexpectedly and lay waste to hard earned holdings in a few hours. Are you safe-guarded?

If not—don't wait to investigate Peninsular Protection. The safe, sane and positive protection that laughs at remorse.

Our Farm Department is at your service. Seek advice today. A postal will bring it to you.

PENINSULAR

Fire Insurance Company of America

Capital \$1,000,000.00

GRAND RAPIDS, MICHIGAN

COLON C. LILLIE, President

N. P. HULL, Secretary

Cow Waters Herself

with this wonderful new Libbey Automatic Water Bowl. Animal moves lever, opening water valve, when it starts to drink. Lever swings back, closing valve, when animal stops drinking.

15% More Milk

Milk is 87% water, and cows cannot give their greatest yield unless they have plenty of water constantly within reach. Farmers who use Libbey Bowls report an increase of 15% to 20%, which soon pays for the bowls.

Libbey Automatic Water Bowls are the most sanitary and successful ever invented. Each bowl controls its own water supply, operated entirely by cow, and may be put at different heights, or in any stall or pen. No float tank required. Cannot overflow; cannot get out of order. Almost no water left in bowl to become stagnant. They save labor and feed and increase milk. Prevent spread of contagious diseases, as each cow has her own bowl and no water can pass from one to another, as with old-style bowls. Very simple and easy to install. Write for circular and prices, also FREE DAILY MILK AND FEED RECORD. If interested in Stations, Stalls, Carriers, etc., ask for free General Catalog.

C. A. LIBBEY COMPANY

204 Marion Street Oshkosh, Wisconsin

Eggs

Our trade on fancy poultry farm eggs is increasing daily. Therefore we are in a position to pay liberal premiums above the Chicago market for fine new laid stock.

We solicit your shipments. Ship via Express. **AMERICAN BUTTER & CHEESE COMPANY.** 2034 Howard St. Detroit, Mich.

Holmes, Stuewe Co., 2429 Riopelle St. Commission Merchants. Dressed Beef, Hogs, calves, Poultry, Live and Dressed, Provisions, etc. Correspondence Solicited. Ref. Wayne County & Home Savings Bank. Bradstreet, Detroit, Mich. Cad. 2887

HAY Ship To The Old Reliable House **Geo. E. Rogers & Co.,** 601 Wabash Bldg., Pittsburgh, Pa.

HAY SHIPPERS, for highest prices bill all cars to The E. L. RICHMOND CO., Detroit.

For Rent Elevator with four concrete storage tanks and warehouse in good city and richest producing county in state, to rent very cheap. F. WEYHER, 2483 Chicago Blvd., Detroit, Mich.

POULTRY

Turkeys Michigan's Best Giant Bronze. Splendid pure bred birds. Early prices low to reduce large flock. N. Evelyn Ramsdell, Ionia, Mich.

Mammoth Bronze Turkeys MRS. EUGENE RAMSDELL, Hanover, Mich.

Pure Bred Bronze Turkeys BOTH SEX. MRS. WM. TANTON, R. 1, Deckerville, Mich.

Narragansett Turkeys. Fine large breeding stock. Order early. Prices reasonable. MRS. W. B. NEWELL, Onsted, Mich.

POLAND-CHINA SALES.

DURING the week of October 21-28 five pure-bred Poland-China sales were held in Michigan. From these sales has gone out some of the best blood of this excellent breed, not only to help maintain the high standard of established herds but, to an even greater extent than usual, to lay the foundation of new herds. Many farmers took their first step in the pure-bred swine business by taking advantage of the offerings of the different sales.

The general excellence of the breeding and the condition of the animals left little to be desired. The prices when compared with the high figures of the past two seasons were conservative. But when measured in bushels of corn it took on an average the corn from about the same area to pay for a hog this year as it did last.

Lind Sale.

The dispersal sale of W. H. Lind was held at the farm near Alto under favorable weather conditions and with a good crowd present. Many prominent breeders of Poland-Chinas and of other breeds, were present. The animals showed plenty of type and carried the up-to-date blood of the breed. The bidding here was snappy. The top price of \$75 was paid by G. A. Baumgarden, of Middleville. Two animals sold at \$60, two at \$50, one at \$46 and one at \$40.

Laughlin, Sherk & Adams Sale.

This sale was held at Caledonia on Saturday, October 22. The crowd was not large but the bidding was brisk and the offering was sold in two hours. The list was a little top-heavy with boars, some of which sold cheap, causing the average to be cut down. Yearling-fries sold the best, five of them being in the sale and all going for better than \$50. The sale was topped by a spring gilt sired by "Belmont Buster" and out of a daughter of "The Yankee." She went for \$75.

Hart, Fulcher & Cline Sale.

At this sale which was held at St. Louis, forty-one head of attractive fall yearlings, spring gilts and young boars were sold. There was a fair crowd present, among whom were listed some of the state's best Poland-China breeders. The bidding was active on the majority of the offerings. The sale was topped by a classy gilt, Checkers Lady farrowed in June by Pansy 103-8744, with Checkers 524747 as sire. She was purchased by E. R. Leonard, of the same place, at \$71. Seven other animals sold above the \$35 mark. Fall yearling gilts appeared to be in best demand. All this offering went to parties living within seventeen miles of St. Louis.

E. R. Leonard Sale.

The highest price paid at Mr. Leonard's auction which was held at the farm northwest of St. Louis, was \$80 for the tried sow, "Queen of Walnut Brook," sired by Big Defender and out of Daisy Hadley. Another tried sow by L's Long Prospect and farrowed by Orange Mollie, brought \$75, while two gilts of this latter sow from a mating to F's Clansman were knocked off at \$60 each. There was a good attendance at this sale and but for the frequent interruption due to showers it is probable that a higher average would have been secured.

Pope Bros.' Sale.

Excellent weather greeted the visitors at Francisco Farm, southwest of Mt. Pleasant, Friday afternoon. We were obliged to leave before the sale was half done, but before we left "Walnut Lady 2nd," sired by Leonard's Giant and out of "Queen of Walnut Brook," brought \$81. A gilt from a mating of Michigan Mastodon and Miss Wonder, found a buyer at \$54 and another of the same litter went at \$51.

The first two sales were successfully piloted by Auctioneer N. C. Thomas, of Caledonia, while the Central Michigan Circuit was ably handled by Wm. Waffle, of Coldwater, who was strongly assisted in the ring by Mr. Hoffman of Hanover.

EASTERN MICHIGAN FRUIT GROWERS TO MEET.

A meeting of fruit growers of eastern Michigan, particularly of the growers in the Huron fruit belt, is to be held at Almont, Mich., on November 8, for the discussion of fruit problems. A number of state horticulturists are to be present. Those desiring more information write A. M. Bullock, Lapeer, Michigan.



A pipe won't burn your tongue if you smoke P. A.!

Get that pipe-party-bee buzzing in your smoke section! Know for a fact what a joy'us jimmy pipe and some P. A. can and will do for your peace and content!

And, you can wager your week's wad that Prince Albert's quality and flavor and coolness—and its freedom from bite and parch (cut out by our exclusive patented process)—will ring up records in your little old smokemeter the likes of which you never before could believe possible!

You don't get tired of a pipe when it's packed with Prince Albert! Paste that in your hat! Each fire up makes you happier! My, my, how P. A. and a jimmy pipe do ring the bell!

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